



THE CAMP FIRE GRAND JURY TRANSCRIPTS

PLEASE BE ADVISED:

THIS IS THE RECORD OF A MASS HOMICIDE CASE. SOME VOLUMES CONTAIN DISTURBING AND GRAPHIC DETAILS.

Dear viewer:

The enclosed document contains the criminal case that led the Pacific Gas and Electric Company to plead guilty to crimes for starting California's deadliest and most destructive wildland fire: the Camp Fire.

On November 8, 2018, the fire destroyed the Butte County communities of Paradise, Concow, and Magalia. 85 people died. The fire destroyed more than 14,000 homes, displacing tens of thousands of people. PG&E was convicted of felony reckless arson and 84 felony counts of involuntary manslaughter. An 85th person died by suicide.

Under California law, these thousands of pages of grand jury transcripts would ordinarily have become public within ten days of PG&E's criminal convictions in June 2020. Instead, PG&E funded a lawsuit seeking to redact the names of all PG&E employees from the records. The lawsuit was eventually defeated,* but it sealed the entire record for two years.

ABC10 argued to the court for the public's right to know. The *Wall Street Journal* joined our legal effort. The release of the documents is the result of a court victory by Butte County District Attorney Mike Ramsey and deputies Marc Noel and Jen Dupre-Tokos.

In ABC10's investigative reporting, many survivors have called for the release of these pages. They want transparency and accountability. Most of all, they want others to be spared their same suffering in the future.

16 million people (one in 20 Americans) live in PG&E's monopoly. For them, this company's behavior is a matter of life and death

It's been said "an apology without changed behavior is just manipulation." To judge whether PG&E's apologies and promises to change are sincere, the details of its past criminal behavior must be available.

Truth is a necessary component of accountability. To that end, ABC10 has chosen to make these records freely available to all.

The documents are attached as received by ABC10. This reading may not be for everybody.** One survivor (who still wants these pages to be published) told me he had to stop reading. The details evoked extraordinary anger in him. To continue would have added to his suffering. Stopping was an act of self-care. So was choosing to share that decision with someone. *If you or someone you know is struggling or in crisis, help is available: Call or text 988 or visit [988lifeline.org](https://www.988lifeline.org).*

As a journalist who went into the Camp Fire, I'll never forget my own escape. I empathize with the trauma experienced by all who were there. I think of the rescuers who faced warlike scenes. I think of the victims and survivors whose trauma is compounded by immense and sudden loss: loved ones, homes, pets, livelihoods, memories, community, and countless other tangible and intangible things.

May all find healing.

Sincerely,

Brandon Rittiman

Special Projects Reporter, ABC10

brittiman@abc10.com

To view our investigative reports, please visit firepowermoney.com

**Names of local PG&E workers in Butte County have been redacted from these records and replaced with names such as "WITNESS #1," etc., a concession prosecutors made prior to the lawsuit seeking to redact all PG&E employee names.*

***While all of the testimony has been provided, some other proceedings were omitted from the records received by ABC10. Volumes 1, 19, and 39 were excluded. In order, those volumes cover: jury selection and opening statements, a day when one grand juror called out sick, and an "evidence review" day. The volumes that were provided contain further redactions, including some proceedings outside the presence of the grand jurors. For example, a conversation between lawyers and the judge about what to do when a PG&E employee invoked his fifth amendment rights (see Vol 8, p. 24-26) is marked "PROCEEDINGS OMITTED."*

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3

4 IN RE:) **REDACTED**
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11 **REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS**

12 **TUESDAY, APRIL 9, 2019**

13 **VOLUME 2**

14 **OROVILLE, BUTTE COUNTY, CALIFORNIA**

15 **Lisa McDermid Welch, CSR 10928, Official Court Reporter**
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1 APPEARANCES:

2
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I N D E X

WITNESSES:

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CAPTAIN THOMAS KLUGE

Examination by Mr. Noel

08

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1 OROVILLE, BUTTE COUNTY, CALIFORNIA

2 APRIL 9, 2019

3 (Confidential Grand Jury Hearing Proceedings)

4
5 [PROCEEDINGS OMITTED.]

6
7 [Recess taken from
8 9:25 until 10:13 a.m.]

9
10 [DISCUSSION OMITTED.]

11
12 [OPENING STATEMENTS OMITTED.]

13
14 [Whereupon the luncheon recess is taken
15 from 11:48 a.m. until 1:50 p.m.]

16 --oOo--
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1 APRIL 9, 2019

2 AFTERNOON SESSION

3
4 MR. RAMSEY: We will go back on the record.

5 And will the foreperson confirm that all grand jury
6 members that were here at the break for lunch are back now.

7 GRAND JURY FOREPERSON: They all are.

8 MR. RAMSEY: We took lunch until 1:50 in the
9 afternoon.

10 GRAND JURY FOREPERSON: Yes, they are all back.

11 MR. RAMSEY: Okay. And if we could have --

12 You ready for your first witness?

13 MR. NOEL: We're ready for the first witness.

14 MR. RAMSEY: You call your first witness. You call
15 his name.

16 MR. NOEL: Tom Kluge.

17 GRAND JURY FOREPERSON: Okay.

18 MR. RAMSEY: And our Sergeant at Arms will retrieve
19 him.

20 We'd ask that the foreperson please swear in the
21 witness.

22 GRAND JURY FOREPERSON: Do you solemnly swear that
23 the evidence you shall give in this matter pending before
24 the grand jury shall be the truth, the whole truth, and
25 nothing but the truth so help you God?

26 THE WITNESS: I do.

1 GRAND JURY FOREPERSON: You may be seated.

2 THE WITNESS: Thank you.

3 **EXAMINATION**

4 BY MR. NOEL:

5 Q. Could you state your name and spell your last name
6 for the record, please.

7 A. Tom -- Thomas Kluge, K-l-u-g-e.

8 MR. RAMSEY: Just make sure that everyone can hear
9 you.

10 THE WITNESS: Okay.

11 MR. RAMSEY: Testing.

12 BY MR. NOEL:

13 Q. Captain Kluge, by whom are you employed?

14 A. Cal Fire.

15 Q. In what capacity?

16 A. I'm a peace officer fire captain specialist
17 currently assigned to the Fire Prevention Bureau in Butte
18 County. My job is to investigate fires of all types.

19 Q. What training do you have that qualifies you for
20 Cal Fire?

21 A. I'm POST certified. I've also had FI-210 which is
22 the fire investigation curriculum. I've also had advanced
23 fire investigation. I've had --

24 Q. Let me stop you. Let's build up to that.

25 A. Okay.

26 Q. First of, how long have you worked for Cal Fire?

1 A. I've worked for Cal Fire since 2002. So 17 years.

2 Q. How long have you been a -- a fire captain
3 specialist, a peace officer, and fire prevention officer?

4 A. Since June of 2017 a fire captain.

5 Q. So when you started with the fire department with
6 Cal Fire in 2002 and when you were assigned as a fire
7 captain specialist to the Fire Prevention Unit, what did you
8 do?

9 A. I'm sorry. Can you repeat the question one more
10 time.

11 Q. From 2002 until 2017 what was your assignment with
12 Cal Fire?

13 A. I was a firefighter. So I started from -- worked
14 my way up the ranks. I was a firefighter in San Bernadino
15 County, promoted to engineer in Amador, El Dorado County.
16 And I transferred to Butte County in 2012 as an engineer,
17 promoted to fire captain in Humboldt-Del Norte Unit in 2014
18 and eventually made it back here in 2017.

19 Q. What training did you receive that qualified you to
20 start off as a firefighter?

21 A. My training for being a firefighter started when I
22 was 15 years old. I was an Explorer with the Boy Scout
23 Program in the city of Highland. It basically introduced me
24 to the firefighting fire department career through trainings
25 there. And then I eventually was able to obtain a job as a
26 paid Cal Firefighter which is a quasi paid position as a

1 volunteer at the same station. There I learned everything
2 from fire behavior to the effects of fire, how to extinguish
3 it. All the training you can imagine that go -- that
4 coincides with being a firefighter.

5 Q. When you moved up, you said --

6 Well, first of all, let me back up to that. What
7 is the difference between a firefighter and an engineer?

8 A. A firefighter is kind of the entry-level basic
9 position. It's a point where you start to learn your
10 career. It's kind of boots on the ground, the solders. And
11 you're instructed on what to do and given direction by your
12 engineer who is a first-level supervisor. And then from
13 there, if I may continue, engineer would then promote to
14 fire captain who oversees an entire fire station.

15 So consider a firefighter as kind of the real
16 worker bee. The engineer is the first-level supervisor of a
17 fire engine. A fire captain will oversee an entire fire
18 station and sometimes multiple fire stations depending on
19 particular geographic area and the need.

20 Q. So how long were you a firefighter?

21 A. I was a firefighter from 2002 until 2006
22 professionally, not voluntary status.

23 Q. What training or experience qualified you to
24 promote to the engineer?

25 A. I had demonstrated the skills. I had to go through
26 an interview process. I took classes as a fire officer.

1 These are classes that are put on by state and
2 federal level education forums in the fire service. The
3 NWCG, which is National -- National Wildfire Coordination
4 Group, they put on a lot of courses. I took college work in
5 fire technology. All these different curriculum combined
6 gave me the skills and the abilities to compete for the
7 examination. I was tested against my peers and promoted.

8 Q. How long were you an engineer?

9 A. I was an engineer from 2006 until 2014. So
10 roughly, what, six years? Eight years.

11 Q. So what training and experience did you obtain that
12 qualified you for the promotion to fire captain?

13 A. Well, I had to go through what we call the Joint
14 Apprenticeship Committee Program. For other trades it would
15 be a journeymen's program basically or an apprenticeship.
16 And I had to fulfill certain trainings, hours and hours of
17 training. I'd have to refer to my CV for the exact number
18 of hours that were obtained through that program.

19 But also continuing education through course work.
20 I obtained my degree in fire technology during this time as
21 well and continued my course work again with the state and
22 national curriculums that are available to me. And again, I
23 had to prove my worthiness by being tested against my peers.
24 And I was able to promote.

25 Q. At the same time you were going through all this
26 training, you were still fighting fires; is that correct?

1 A. Yes, I was. All along the way. I know I did
2 earlier state that the firefighters were worker bees. And
3 that is true. They -- the firefighters do work up against
4 the fire a lot more than the fire captains and the
5 engineers. However, I was still on the line. I was
6 directing groups of people, working as a division. So
7 overseeing like an entire half of a fire, overseeing entire
8 fires as an incident commander, doing logistical work,
9 providing support to firefighters. So really put myself
10 available to all aspects that are required to fight a fire,
11 not the just, you know, putting water on a fire. There's a
12 lot of support and a lot of coordination, instruction,
13 direction goes into it. And I participated in all of that.
14 So there's quite a bit there.

15 Q. You used a term early that I'd like to have you
16 define for the jurors, and that is fire behavior.

17 A. Yes. Fire behavior is pretty much, well, what we
18 describe as the science behind fires, like what happens to
19 fire as it's growing, as it's going from it's -- basically
20 it's kindling like the first -- let's use a match as an
21 example. You know, you keep on lighting a match, you just
22 think about striking it and you have a fire. But there's a
23 lot of processes that happen from that first contact, the
24 first friction which, you know, starts a chain reaction.
25 This is all part of the fire behavior.

26 And it's influenced by many things. That match is

1 influenced by how much humidity is in the air, how wet those
2 matches are. This is all part of the fire behavior. So the
3 weather is part of fire behavior, the science. You know,
4 what factors are in place, how much oxygen is in the air,
5 how much humidity?

6 I can bore you to death with the science because I
7 love it. But it's -- the fire behavior is really the known
8 standards that we have learned just through the science and
9 scientific process of analyzing fire.

10 Q. As a firefighter why is it important to understand
11 fire behavior?

12 A. To understand fire behavior is multiple-fold.
13 Number one, it's safety being able to recognize conditions
14 that are developing to protect ourselves. That is first and
15 foremost. Secondly, to understand fire --

16 I'd like to correct myself. In order to put out a
17 fire, you need to figure out what the fire is doing and what
18 is it feeding off of. Is this fire -- you need to know if
19 the fire is influenced by the terrain, is it influenced by
20 the wind, is it influenced by the fuels that are available
21 to it, is there an oxygen source, something that's outside
22 of the norm that we've got to take care of, the humidity
23 first, or can we just focus on the basic fire behaviors?

24 So understanding fire behavior is absolutely
25 essential in putting out a fire. Excuse me. But to
26 understand fire behavior also allows us to prevent fires.

1 So if we know what is causing the fires, what is allowing
2 the fire to propagate, we can prevent these fires from
3 happening. And I think that is also incredibly important
4 especially my prevention -- my job in the Prevention Bureau
5 that's what we do. We prevent fires.

6 So fire behavior -- it's one of those fundamental
7 skills they taught me when I was 15 years old. There's a
8 lot of science involved. There's a lot of understanding of
9 technical terms; Boyle's law, Charles' law. All these
10 physic things come into play. Chemistry comes into play.
11 All these different disciplines come into place. You know,
12 meteorology, which is what fire behavior is.

13 And it's so important. And it's one of the very
14 first things they teach us. Before we're even able to get
15 on a fire engine, we have to demonstrate a basic fundamental
16 knowledge of fire behavior.

17 Q. As I understand, if I can summarize it, a big part
18 of that is -- as a firefighter, as being the guy in the
19 front lines, it's safety so that you can put yourself or
20 make sure that you're in a place of safety while you are
21 fighting the fire.

22 A. Yes.

23 Q. And then when you see -- if I can summarize this,
24 as you move up the chain as an engineer, now it becomes
25 important because now you're actually starting to place
26 assets and plan for attack on the fire; correct?

1 A. Yes, and the responsibilities of the other
2 firefighters and fire engineers on the line as well.

3 Q. Right. And always the safety?

4 A. Always.

5 Q. And you're in charge of those other people in
6 making sure that they're then in correct positions?

7 A. Correct.

8 Q. And then as a fire captain now you've got a big
9 overall view of everybody; correct?

10 A. Correct, yes.

11 Q. All right. So you were a fire captain for three
12 years?

13 A. Yeah, from 2014 to early 2017. Two and a half.

14 Q. And then you said you became a fire captain
15 specialist?

16 A. Yes.

17 Q. What is the distinction between a fire captain and
18 a fire captain specialist?

19 A. Instead of me being assigned to a fire station as a
20 captain, I was assigned to a Fire Prevention Bureau which
21 kind of takes me out of the normal rank and file and puts me
22 in a position that identifies me as a specialist amongst
23 experts I guess is probably the best way to put it. So if
24 you consider all firefighters experts in the world of
25 fighting fire, then I would be a specialist amongst them.
26 So it puts me in a position to do certain investigations

1 that they wouldn't be allowed to do which also is a
2 requirement of me having gone to POST to become a
3 standardized police officer.

4 Q. What are the duties and responsibilities of a Fire
5 Prevention Unit?

6 A. Our primary duties, our day-to-day duties start
7 with the prevention of fires just like the bureau says. So
8 our job is to go out there, respond to all fires in Butte
9 County, make determination if this was, number one, an
10 actual fire. A lot of times they turn out to not be fires.
11 Overheating vehicles, things like that. And then more
12 important you find out how the fire started, where the --
13 where the fire started and then how the fire started. So we
14 can collect that information, compile the data, and figure
15 out how to prevent further fires from happening. And then,
16 of course, public education and all the other duties. But
17 primarily, our job is to figure out where and how fire
18 starts, what happened, and what we can do to stop it from
19 happening again.

20 Q. Is there a prevention component to the Fire
21 Prevention Bureau?

22 A. Yes, there is. The prevention component has to do
23 with us going out and performing inspections on houses
24 everything from new construction and how it's being built to
25 old construction and how it's being maintained and
26 everything in between. So the roads, trains, distribution

1 and power lines, any type of utility, any type of potential
2 heat sources out there, we kind of keep -- I want to say
3 keep an eye on it, but we go out and make sure that the
4 public is educated, companies are educated, and they
5 understand, you know, what they can do in cooperation with
6 the fire departments in the communities to prevent fires
7 from happening.

8 Q. What training and experience do you have that
9 qualifies you as a fire prevention specialist?

10 A. So I attended, as I said, hours and hours of
11 training. I've investigated well over 300 different fires,
12 significant fires. I'd say significant. I've written
13 hundreds and hundreds of reports on them. I've compiled all
14 data, entered it into national archiving systems. I've
15 reviewed the information. I have identified potential
16 prevention targets that we can acquire and, you know, make a
17 good -- a good difference.

18 I already mentioned that I've got a POST
19 background; the training. My training -- my curriculum
20 vitae that includes arson investigation courses, fire
21 investigations courses, simple origin, vehicle fire origin
22 and cause specialist. I'd have to refer to my curriculum
23 vitae to state everything.

24 Q. So just to make sure it's clear, you are a
25 firefighter, but you're also a police officer; is that
26 correct?

1 A. Yes, I am.

2 Q. And unlike most firefighters or engineers or fire
3 captains, you actually have specialized training in doing
4 criminal investigations?

5 A. Yes. I have been -- I've attended standardized --
6 California Peace Officers Standardized Training course. And
7 that has given me the tools and the resources to know what
8 needs to be done systematically within an investigation in
9 California and to be able to have a -- if there's any type
10 of indication that there is further investigation needed, I
11 can officially package everything, write the report, and
12 move on with the forward investigation from there.

13 You know, understanding the laws that are required,
14 understanding what is required of me, evidence collection,
15 interview and interrogation techniques called BATI, evidence
16 handling, scene security; everything that is required within
17 the California Peace Officers Standardized Training.

18 Q. Just you answered my next question which is the
19 definition. You have used the term "POST" multiple times.

20 A. Yes.

21 Q. What is Post?

22 A. Thank you for catching that. POST stands for Peace
23 Officers Standardized Training. So . . .

24 Q. And what is POST?

25 A. Post is a curriculum developed by the State of
26 California to make sure that all law enforcement is held to

1 specific standards, that all officers are taught the same
2 essential criteria and are held to the same standard in
3 testing and held to the same standard as required by the
4 people of California.

5 Q. Another term that you have used several times
6 already is origin and cause. Can you explain to us what
7 origin and cause means.

8 A. I can. Origin and cause is one the fundamental
9 skills of my job. It's what I do on my day to day. When we
10 do what's called an origin and cause investigation, it's
11 actually two investigations we're doing. First, we are
12 trying to figure out the origin, where the fire started,
13 where did this giant fire come from. I know I've been asked
14 this many times by many people "How do we figure this out?"

15 Want me to go into that?

16 Q. Sure.

17 A. Okay. So I'm going to bore you with a little bit
18 of science. Please stay with me. If I'm going too fast,
19 slow me down.

20 So when I arrive at a scene -- I'm just going to
21 use a wildland fire. I think it's a good example here.
22 You're talking, you know, 153,000 acres. It's a big fire.
23 Where do we start?

24 Our origin and cause will go through and we'll take
25 all information that we can gather up and put it together
26 and compile it. So from witness statements, firefighter

1 accounts, what they saw when they first got there, what it
2 looked like when they first got there, what are the weather
3 conditions. We put all the stuff together and start just
4 slowing from the outside edge working our way back. We'll
5 look at it from 360 degrees all the way around and keep
6 examining it in a serpentine fashion, kind of just work our
7 way back and forth until we get to an area where it's within
8 a certain -- depending on the size of the fire. You know,
9 it could be five feet, it could be 100 feet diameter but a
10 certain area which we call a general origin area.

11 Once we get back to this general origin area, then
12 we really get into little smaller details. We have what's
13 called the macro and micro indicators.

14 So a macro indicator would be -- if you can imagine
15 a big, giant, you know, Ponderosa Pine standing up healthy
16 and happy and a fire comes through and the wind is blowing.
17 If you can imagine all those limbs are going to kind of be
18 blowing in the wind; right? And as they are blowing in the
19 wind, they are getting kind of heated up by the fire. And
20 it's going to cook the tree like vegetables. I mean, it's
21 going to wilt like cabbage or anything else would on the
22 stove.

23 But it continues to heat it to the point where it
24 dries out. And now you have all those limbs and all those
25 needles standing in time kind of frozen. We call that
26 needle freeze or stem freeze. That's a really big macro

1 indicator.

2 Or you may see the tree just has burning on one
3 side of it as the fire came through and burned off the bark
4 on one side and left the bark on the other side. I'm sure
5 everybody has seen that in Butte County at some point here
6 lately. That is kind of one of our bigger macro indicators.

7 We also have micro indicators. That can be
8 something as small as a single pebble that has soot on one
9 side but not on the other. Or it could be a single blade of
10 grass that -- I have a hard time explaining this one because
11 it's kind of technical. But if you have a standing blade of
12 grass and the fire is walking really slowly, you know,
13 really slow low-intense fire, as it starts to impinge upon
14 the side of the blade of grass, this side of the grass is
15 burning but this side is not. And as this side starts to
16 burn, the cellular wall starts to collapse and the stem will
17 fall and point right towards where the fire started.

18 And you may have an entire crescent shape of these
19 grass stems pointed right towards the origin. And sometimes
20 it's that easy to find. And other times you've got to look
21 for those little pebbles. And so we get down on the ground,
22 and we get dirty. We're digging through dirt just like I
23 did when I was a little kid. It's -- there's so much
24 science there. And we're looking at all these different
25 indicators, all the totality of indicators. We may have 100
26 different indicators in a one-foot square area. And we'll

1 identify that as either being the fire as moving forward in
2 what we call a progressing fire or the lateral --
3 progressive vector. Or it may be backing like real slow
4 kind of as your fire is kind of working it's way back kind
5 of against the winds. We call that a vacuum vector. And
6 there's a lateral which is kind of beside the fire kind of
7 working its way out as your V starts to get bigger.

8 Has everybody -- anybody -- well, let me explain
9 what the V pattern is. So there's a V pattern typically
10 with any type of fire. Whether it's a structure fire, we
11 have a vertical V pattern or you have fire on the ground.
12 Something is going to influence that fire. It may be the
13 terrain, it may be the wind, it may be the fuels, but it's
14 going to travel in a direction.

15 And usually unless it's absolutely still, it's
16 perfectly flat grounded and it's all the same fuel, it's
17 going to want to one run in one direction or the other. And
18 you're going to have a "V." It's going to look like a "V"
19 in the sky or look like a "V" on the wall if it's a
20 structure fire.

21 So we'll take all these things in consideration,
22 and eventually you will bring all this stuff back down and
23 say "Okay. This is where my origin is." Sometimes we can
24 get it down as small as, you know, what I can cover with the
25 tip of my thumb. Other times it's an area that is three
26 feet in diameter. And we'll call that a specific origin

1 area. And you'll hear me talk about specific origin area
2 and a general origin area, which is kind of that bigger
3 circle where we're first getting down on the ground. We
4 call that the general origin area.

5 Once we've identified that "Okay, we have an
6 origin," half of my investigation is kind of done. Then I
7 go to the other part, which is the cause. And now I am
8 trying to identify what caused this fire. Is it the match
9 on the ground? Is it mice with matches? Is it electrical
10 in nature? Is it a camp fire? Is it a barbecue? Is it a
11 car? Is it -- you know, whatever.

12 And that's when we start looking at what's on the
13 ground? What evidence do we have? What indicators do I
14 have? What kind of fire behavior do I have? Were there
15 accelerants involved? Should we test this stuff and get
16 experts in here to tell me something more? We put all this
17 stuff together and then we can have a determination of what
18 the cause was.

19 So my investigation is still not done. Now I have
20 to disprove everything. I have to try and disprove every
21 hypothesis that I have. I have to try and prove myself
22 wrong. Because if I can't prove myself wrong, then I know
23 I'm right. So every time I do an origin and cause
24 investigation, I try to put as many holes in it as possible.
25 I will go find another location, start over from scratch and
26 do it again. And if I come back to the same point, I'm on

1 the right track. But until that point I've got to continue
2 to look for another possibility until I have eliminated
3 everything.

4 Q. It sounds like a very detailed knowledge of fire
5 behavior would be necessary for a competent origin and cause
6 investigation. Is that true?

7 A. Very. Yes, that's true.

8 Q. Do you have any advanced training or certification
9 in origin and cause investigation?

10 A. Yes, I do. I have taken the course called Fire
11 Investigation 210 and Fire Investigation 110. 110 is kind
12 of an introductory understanding of fire origin and cause
13 investigation and then FI-210 is the advanced fire captain
14 specialist level, fire captain level course. And then I
15 have also had in 2017 -- or 2016 I took a course in Advanced
16 Fire Investigation Techniques through the Bureau of Alcohol,
17 Tobacco, and Firearms who does all the federal instruction
18 for all of this kind of stuff.

19 Q. Throughout your career how many origin and cause
20 investigations do you believe you completed?

21 A. Over 300. That is not including the ones that I
22 was participating in as an Explorer and volunteer
23 firefighter. That is just within my professional career.

24 Q. Now, prior to ascending to a fire captain
25 specialist and being assigned to the Fire Prevention Bureau,
26 did you have opportunities to do origin and cause

1 investigations?

2 A. Yes.

3 Q. How so?

4 A. Just in the standard responsive --

5 Let me clarify. Did you say before just being a
6 fire captain specialist?

7 Q. Yes, before.

8 A. Yeah. Just in the course of working with fire
9 engines, we were expected with a little bit of training to
10 be able to identify what a basic origin looks like. Cause
11 wasn't necessary unless we saw something obvious. But as a
12 firefighter, one of our jobs is to also not only extinguish
13 the fire but protect the origin so that the fire
14 investigator that is going to be coming right behind us can
15 come and investigate the fire and figure out why this fire
16 started.

17 Every firefighter is responsible for the fire
18 prevention portion of our job. So part of our prevention
19 job as a firefighter was to protect the origin. So every
20 single -- virtually every single fire that I went to, I did
21 a minimum portion of an origin investigation at least
22 identifying where the origin was.

23 And you talk to most people on a smaller incident
24 where you can see the whole thing standing from one vantage
25 point, every firefighter knows what that origin is because
26 that is -- we're trained to do that. We have learned the

1 fire behavior. We understand what we're looking for.

2 So and then as I progressed through my
3 understanding, my rank, and my career, my responsibilities
4 became greater and greater where I went from just me being
5 the firefighter on the ground to being the engineer
6 responsible for that fire company to make sure I don't park
7 on it as I am driving and that my crews stay away from the
8 origin, teaching the younger, you know, new firefighters
9 what to look for, how to stay out of origin, identifying the
10 origin. So not only was I doing the origins, I was also
11 teaching this to firefighters since 2006.

12 Q. Do you have any specific training or experience
13 investigating electrical caused fires?

14 A. Yes. As part of the standard FI-210 course -- and
15 that is the fire investigation 210 course -- part of that
16 training involves identifying electrically caused fires and
17 what to look for. I have also had one-on-one training with
18 a specialist, and I do come from an electrical background
19 through my family.

20 Q. Prior to November 8th did you ever investigate a
21 potentially electrical utility caused fire?

22 A. Yes, I have.

23 Q. On how many occasions?

24 A. I would have to check it out. I would say at least
25 more than 25, 30.

26 Q. On November 8, 2018, what was your assignment?

1 A. I was assigned to the Fire Prevention Bureau in the
2 Butte Unit. I was the on-duty prevention officer for all of
3 Butte County.

4 Q. Where were you at at approximately 6:30 a.m.?

5 A. I was at home trying to enjoy my morning.

6 Q. Sometime shortly after 6:30 a.m. on November 8,
7 2018, were you dispatched to a fire?

8 A. I was.

9 Q. By whom?

10 A. Oroville Emergency Command Center located here in
11 Oroville. It's our dispatch center run by Cal Fire.

12 Q. And how did they communicate the dispatch to you?

13 A. They broadcasted it over radio tone frequencies
14 which alerted my pager alerting me that there was an
15 incident occurring and gave the vocal dispatch over the
16 radio.

17 Q. Okay.

18 A. And CAD and then text page as well.

19 Q. Were you given instructions as to the location of
20 the fire?

21 A. I was given a general area. I was -- I received
22 the call as being along Highway 70 Camp Creek Road near the
23 transmission lines.

24 Q. Did you start to respond to the area?

25 A. I did.

26 Q. Were you in a state truck?

1 A. I was. I was in a state marked vehicle in my
2 uniform.

3 Q. Were you in a highbred fire/police vehicle?

4 A. Yes. It's mostly built for my position. I do have
5 firefighter equipment on there, but it's also all of my
6 investigation equipment. So, yeah, it's kind of a -- it
7 doesn't have the big pumps on it, but it's a pickup truck
8 with a water can. And the rest of it's just investigation
9 materials and some safety gear.

10 Q. So what was the route that you took responding to
11 the fire?

12 A. Generally speaking, I took Highway 99 to Wick's
13 Corner to Highway 70.

14 Q. When was the first time you got a view of the fire
15 you were responding to?

16 A. The first true clear view that I had was just past
17 Skyway south on Highway 99 when I saw with real clarity the
18 entire column of smoke, the plume of smoke. I was able to
19 see that clearly from just past Skyway and Highway 70.

20 Q. Describe your drive up to the fire location.

21 A. If I may, I'd like correct that. I said
22 Highway 70. I meant Highway 99 and the Skyway.

23 Q. Good. Thank you. I didn't even catch that. I
24 don't think 70 and Skyway intersect.

25 A. Yeah, I don't think so.

26 Q. Describe for us your drive up to the fire location.

1 A. Well, as I was driving, I noticed that the valley
2 floor -- before we even got up into the hills, that the --
3 number one, that the column of smoke was really, what I
4 refer to, as kind of churning and boiling. The smoke is
5 really moving. It was very similar to other major fire
6 smoke columns I'd seen in the past. And I've seen many of
7 them. And the way it was really kind of moving -- we've
8 been taught this in our fire behavior classes. That's kind
9 of an indication of a lot of energy being released in the
10 atmosphere which tells me the fire is burning with a lot of
11 intensity early on.

12 I was able to overcome -- it was early in the
13 morning. I was able to see that, you know, the fire was
14 really being -- rephrase. Not the fire. The smoke was
15 really being pushed down by the wind. It was still able at
16 times to overcome the inversion or what I would call an
17 inversion layer. There wasn't much of an inversion that day
18 because of the -- because of the amount of wind kind of --
19 but with really high winds you have what's called a stable
20 environment even though it seems really windy, but all the
21 air is moving in one direction.

22 There were times where the smoke column was
23 overcoming that wind. That -- that high pressure system was
24 coming in. And the wind -- the smoke was actually able to
25 overcome that high pressure system. So it told me earlier
26 on that this is going to be a significant fire. This is

1 going to turn into a major event.

2 I also identified -- to continue with my
3 observations, I also identified on the valley floor that the
4 tops of trees were moving significantly. It was clear to me
5 that it was a very windy day. I didn't know how windy it
6 was going to get until I drove further up Highway 70 where I
7 was met with the real winds.

8 Q. You mentioned earlier -- and this would be a good
9 time to segue into the meteorology. Why is meteorology
10 important to an origin and cause investigator?

11 A. Meteorology and understanding what weather patterns
12 are doing and are going to do, again safety. Knowing what
13 the fire is going to do is paramount importance. But also
14 it gives us kind of an understanding of what we can expect
15 and prepare for.

16 The morning -- actually, if I can back up the day
17 before. It had been identified that a high pressure system,
18 which has a clockwise rotation -- so if you're looking down
19 on the Earth, you're looking over Oregon, California,
20 Nevada, looking to the Great Basin, you have a high pressure
21 system that is kind of running clockwise and pushing down
22 from Oregon into Nevada and the Great Basin. And as that
23 clockwise rotation is coming down, you can just imagine all
24 those winds that kind of are coming off that spiral effect.
25 It's going to actually have a rotations to push all of that
26 air right down through the Highway 70 corridor.

1 So knowing that ahead of time, having done my
2 homework every day like I do, knowing what the weather
3 patterns were going to be, what to expect for the day, I
4 knew that we were in for a fire fight. But I also knew that
5 at some point as we started to get -- as this weather system
6 continued to move across the earth, the wind was going to
7 change direction on us because now we're getting the other
8 side of that rotation where it's going to blow everything in
9 the opposite direction which is extremely dangerous for
10 firefighters, extremely difficult for the environment, for
11 the destruction aspect of it. And then, you know, for being
12 able to contain this thing in a reasonable amount of time
13 without, you know, too much effort.

14 So knowing that and being prepared for that was
15 great because not only were the individuals firefighters
16 able to make plans and work on that but our emergency
17 dispatch center, the ECC, Emergency Command Center, they
18 were able to order a bunch of equipment heavy early and get
19 them coming to at least effect some better good. This was
20 the kind of fire that took all the resources we had and
21 still was not enough and not fast enough.

22 Q. When you were on your way up to the fire scene,
23 what was the status of the firefighting efforts?

24 A. I heard -- driving up Highway 70 I heard Fire
25 Captain McKinsey give an update on conditions. I heard him
26 put himself at scene. I -- I heard him on the radio put

1 himself at scene and give an update on conditions basically
2 saying where the fire is located, how big it had grown. And
3 he verbalized over the radio that he cannot make access due
4 to Camp Creek Road being blocked by debris and the road
5 being closed due to a washout and rock slides.

6 I later investigated and found that to be
7 absolutely true. The access to the initial origin of the
8 Camp Fire was absolutely blocked from all directions,
9 impassable by really any means.

10 Q. So as you're heading up into the -- up 32, the
11 Feather River Canyon, you're monitoring the fire radio.
12 What is going on up at the -- essentially the initial fire
13 fight?

14 A. So the initial fire fight, I wasn't there for the
15 initial fire fight, but I did locate the incident command
16 post. Excuse me. I did identify where the initial incident
17 command post was, and I spoke to the incident commander
18 whose Division Chief John Messina. I spoke with him and I
19 got some fire history with him. He told me that there
20 were -- they were unable to get crews into where the actual
21 fire started itself and that Pulga was under mandatory
22 evacuation. Concow was under evacuation orders. And
23 everybody was basically spending all their efforts trying to
24 evacuate people.

25 Q. Why as an origin and cause investigator is it
26 important for you to get information from the first-in

1 firefighters and incident commander?

2 A. The first-in firefighters -- that's a two-part
3 question. Those first-in firefighters are important because
4 they were the first official eyes on the fire. We do have
5 witnesses, and we take that information as important as
6 anything else in getting the next report because usually our
7 witnesses usually leave the area. And so knowing how
8 quickly the fire progressed, what actions were taken, who's
9 done what, you know, has anybody come and gone, were any
10 vehicles seen coming and going? All this stuff is super
11 important first eyes to actually see that are first
12 responding firefighters.

13 So we try and grill our first responding
14 firefighters early on while their memories are still fresh.
15 And pieces of paper with that information written down are
16 collected early on.

17 Secondly, it's important -- the second part of the
18 question was to contact me as a commander to find out what
19 has been done so far, what do we know. Because the incident
20 commander is in charge of everything on the ground. Every
21 single person, every fire engine, everything on the ground
22 is under one person's responsibility. Of course, there's a
23 chain of command, but ultimately the incident commander is
24 responsible for it. And so going directly to the commander
25 I could find out how many evacuations are happening, how
26 many folks are out there, what have they done, who are my

1 first responding individuals, and has there been an origin
2 identified by those firefighters where I can -- if I don't
3 go right to it, I can, you know, check it later if I end up
4 in a different position. So it's both of those bits of
5 information are absolutely invaluable.

6 Q. Where did you meet with Chief Messina?

7 A. Chief Messina and the incident command post were
8 located at the Yankee Hill Hardware Store, the Ace Hardware
9 store on Highway 70 just outside the gate there. I met with
10 him there. That's where they set up their temporary ICP.
11 Incident command post. Excuse me.

12 Q. After meeting with Chief Messina, did you proceed
13 further up the canyon?

14 A. Yes. I met with Chief Messina, and he told me who
15 was up canyon. I found out that Captain McKinsey was still
16 up there with his fire crew and one other fire engine.

17 I asked him where specifically it was located? He
18 said "Not sure just right now because it is still very fluid
19 and dynamic." He told me they were north of -- north of the
20 station likely near the town of Pulga or the community of
21 Pulga.

22 So I was able to finally contact Captain McKenzie
23 on his fire engine Engine 2761. Contacted him and he was
24 able to meet me at Highway 70 and Pulga Road.

25 Q. When you met with Captain McKenzie, did you get a
26 briefing on his observations -- initial observations of the

1 fire?

2 A. Yes. I asked him what he saw when he first got
3 there. And he asked me to follow him and he took me to the
4 point where he first saw the fire. And that location was --
5 I have it documented in one of my photographs. It was on
6 Highway 70 directly south of Poe Dam. There's a turnout
7 there. And he showed me what the fire was doing.

8 Q. Did Captain McKenzie indicate to you if he had
9 taken any photographs or video of the fire?

10 A. Yes. He told me that he had taken a photograph and
11 he showed it to me on his Smart Phone. With no service we
12 weren't able to -- I was unable to capture that photograph
13 from him right then and there, but I was able to get that
14 from him at a later date. But he did know me the fire -- or
15 I'm sorry. He showed me a picture of the fire when he first
16 arrived.

17 Q. In front of you you have a stack of photographs
18 that are binder clipped together.

19 A. May I open it?

20 Q. Yes, please.

21 A. Okay.

22 Q. The first photograph in that stack should be what
23 is marked as Exhibit Number 1.

24 A. Yes.

25 Q. Do you see that? Do you see the exhibit tag?

26 A. I do. It's on the back, yes.

1 Q. And that is Exhibit Number 1?

2 Do you recognize that photograph?

3 A. I do.

4 Q. What is that photograph?

5 A. This was the photograph that Captain McKenzie
6 showed me on the morning of November 8th.

7 Q. Is that the photograph that was shot by
8 Captain McKenzie shortly after you arrived on scene of the
9 fire?

10 A. Yes.

11 Q. Can you explain to us or show us what we're seeing
12 in this photograph.

13 A. Yes. The fire is -- right now you have several
14 things happening with the fire actually. You have some
15 backing fire and you have some advancing fire. It's
16 actually working its way in a circular motion kind of off
17 the hillside. So earlier when we talked about fire behavior
18 and how things kind of spread, this backside of this side of
19 the hill that we can see, while the fire tends to be high,
20 it's not as high as you'd expect for the winds that morning.

21 And as I spoke to Captain McKenzie outside of my
22 truck, I found it difficult to walk. The winds here were so
23 much that he was actually having to lean into the wind as I
24 walked to Captain McKenzie's fire engine.

25 I wasn't asking him to get out of his vehicle
26 because he was in a fire response vehicle that had to move

1 if he needed to move in a hurry. So I walked to him. So
2 the winds were really, really laying over. There was a
3 strong northeasterly wind. And right now what you see in
4 this photograph is the intensity. If I --

5 Q. Let me stop you real quick. I skipped a step. We
6 have up on the big screen in front of the jury a photograph.
7 Correct?

8 A. That is the same photograph.

9 Q. Is that the same photograph that you're looking at
10 that is marked as Exhibit Number 1?

11 A. Yes, it is.

12 Q. And if you want to -- if it's okay with madam
13 foreperson and the jury, if you want to get up and point to
14 things on the photograph on the big board, go ahead.

15 GRAND JURY FOREPERSON: Yes, please.

16 THE WITNESS: Thank you. I work better standing
17 up.

18 So like I was trying to say, the fire -- the way
19 the fire was burning through here it has a higher degree of
20 intensity. I wouldn't call this a backing fire. However,
21 in the greater scope of this particular fire and the speed
22 at which this fire grew, this would be kind of relative to a
23 backing fire. The winds were blowing northeasterly. So
24 coming across this way so . . .

25 BY MR. NOEL:

26 Q. Oops. Sorry.

1 A. Did I do that?

2 Q. Nope. I did that.

3 A. So this is being -- kind of being protected by the
4 wind kind of like hiding behind a shelter in a storm. It's
5 a little bit protected so it's not really intense. Out here
6 in the open it is burning much more intense. It's in the
7 face of the wind. So then also there are -- it may be
8 difficult to see from back there, but I count one, two,
9 three transmission towers.

10 Is that visible?

11 Q. Do you want me to pull it up a little bit? Nope.
12 I've got to do it for whatever reason on here.

13 A. So here is the top of one tower. Here is the full
14 tower over hear. And you can see the shadow in here through
15 the smoke.

16 Can I just stand up here while we go through --

17 Q. Sure. Do you want to grab the other exhibits and
18 your list?

19 So after talking with Captain McKenzie, what did
20 you do?

21 A. After I spoke with Captain McKenzie, I took a
22 photograph myself. I wanted to get a photograph of what the
23 fire was doing at the moment that I was there. This is the
24 first documentation. Captain McKenzie told me that the fire
25 had not really backed against the wind.

26 What item is this?

1 Q. It's should be number 5. Six. I'm sorry.

2 A. Number 6, photograph six.

3 Q. And that's the photograph that is displayed on the
4 big board?

5 A. Yes, it is.

6 Captain McKenzie told me the fire had not backed
7 towards the east much more than when he first saw it when he
8 arrived. And that is a reasonable expectation with the
9 winds that were -- the winds that were present that day.
10 The winds were pushing so hard it wasn't really allowing the
11 fire to burn against it.

12 Are we able to come back to this photograph later?

13 Q. Yes. But right now you keep using a term and that
14 is "backed."

15 A. Yes.

16 Q. Define what it means for a fire to be -- to back
17 or . . .

18 A. So to say a fire is backing, in other words, it's
19 burning against the dominating force. So if it's burning
20 against the wind, burning downhill from a slope-driven fire,
21 that is considered a backing fire. It's not -- you know,
22 usually, like I said, you have a "V" pattern. On one side
23 you have a strong forward progress. On the backing vector
24 it's working against the dominating force. That would be
25 the wind, terrain, and fuel.

26 Q. So why was it important to you that Chief

1 McKenzie --

2 A. Captain McKenzie.

3 Q. I'm sorry. Captain McKenzie indicated that he
4 hadn't really observed any backing since he had arrived?

5 A. It gave me one perimeter to start with. Number
6 one, we knew with the scope of my investigation with his
7 witness statement I have one side of the box. Eventually, I
8 had to build four sides of my box of my investigation. So I
9 have one side to start with because I know from what I can
10 see and from what Captain McKenzie told me the fire did not
11 start back here (indicating) because I don't have fire back
12 here. I know that it started somewhere. I don't know at
13 this point. And that is why I wanted to document it.

14 And I also noted the GPS location of where I took
15 the photograph. So if this fire did run out the opposite
16 direction like I expected it to, because of the weather
17 conditions and the meteorology we knew was going to happen,
18 I would at least have a point to reference to go back to.
19 It did eventually push back. And this all ended up burning
20 eventually.

21 Q. So you shot this photograph?

22 A. I took this photograph.

23 Q. And from where did you take this photograph?

24 A. On Highway 70 on the south side -- southwest --
25 southeast side -- southeast side of Highway 70. I'd have to
26 reference the GPS location for the exact spot, but this was

1 northeast of Poe Dam.

2 Q. When you shot this photograph, did the towers have
3 any significance to you?

4 A. At this point, no. I consider them only because
5 they are there and it's part of what I saw. For me
6 initially the most value the transmission towers were a
7 reference point. Again, my first step is to figure out the
8 origin location. So it was something to consider, but it
9 wasn't -- it was noted but not sought after at this point.

10 Q. And you were shooting this photograph from quite a
11 distance away from the towers; correct?

12 A. I was and from a much lower location. Can we --
13 no. Well, it's hard to see here, but we're --

14 Can you see this insulator string right here
15 (indicating)?

16 Q. We'll get to that in a second.

17 A. I'm talking about --

18 Q. Well, once you were -- later did you get a chance
19 to examine this photograph on a computer screen where you
20 could blow it up and focus on certain things?

21 A. I did. Several days later -- I'd have to look at
22 the timestamp. I looked at it. But several days later
23 after I concluded my origin investigation, I was able to go
24 back and look at this on a screen that was bigger than my
25 two-and-a-half inch view finder on my camera.

26 Q. And did you notice anything significant?

1 A. I did. In this photograph when it was blown up and
2 zoomed in, I noticed that one of the insulator strings on
3 the tower was not in its correct position. If you see right
4 here, Ladies and Gentlemen, this is an insulator string.
5 This over here is also an insulator string. And it's really
6 hard to see, but right along here (indicating) --

7 Can I use the --

8 Q. I think so. Is it coming out? There it is.

9 A. I'm going to mess it up.

10 Q. There it is.

11 A. So right here (indicating) is the support for this
12 insulator string. Here (indicating) is the support for this
13 insulator string.

14 Q. And just for the record, you're using the drawing
15 function on the big screen, and you have highlighted the
16 insulator supports in yellow and the downed insulator in
17 red?

18 A. Yes.

19 Q. Okay. Go ahead. Keep going. I will stop to make
20 sure we get all of this on the record.

21 A. And we're well below elevation here. And so this
22 upper support arm is actually closer to us than this
23 (indicating) one. So it gives you an idea of how high in
24 elevation this thing is from my location. So it's a little
25 bit hard to understand the perspective. But we're looking
26 at an almost 45-degree angle uphill. So it's very steep in

1 this country.

2 Q. So where should that insulator string that you have
3 highlighted in red actually be?

4 A. So right now it's inverted upside down. And it
5 should be hanging on the tip of the support arm over here
6 (indicating.)

7 Q. And you are indicating the upper support arm?

8 A. Well, what appears to be the upper support arm,
9 yeah.

10 Q. And actually, they are flat? Those two are
11 absolutely level --

12 A. They are level, yeah.

13 Q. -- to each other?

14 A. Absolutely level.

15 Q. As you were explaining, it's the angle of the
16 picture that makes it look like one is higher than the
17 other?

18 A. Correct.

19 Q. Okay. For the record, erase the highlighting on
20 the picture.

21 So what did you do after you talked to
22 Chief McKenzie?

23 A. After I spoke with Captain McKenzie --

24 Q. Or Captain McKenzie. I'm sorry.

25 A. I tried making access. He pointed out some good
26 information. After having seen his original picture, I

1 identified that potential area. And I'm going to --

2 Can you shrink that down more.

3 I did identify in Exhibit 6, this photograph, that
4 that may be part of the origin of our fire just based on
5 Captain McKenzie's initial photograph that he showed me. So
6 I tried to make access. Unfortunately, the road was blocked
7 by burning debris. There was rock slides. There were giant
8 boulders. There were trees. There were power poles in the
9 road. I mean, it was a mess. It was an absolute mess.

10 Q. All as a result of the fire?

11 A. No. Actually, some result of the fire; the burning
12 debris. Some of the rocks slides, I assume, were from the
13 fire, but there were also rocks slides that had been there
14 for a long time. They were well compacted, had been --
15 basically taking up the entire road and absolutely
16 impassable.

17 I didn't see any evidence of anybody coming or
18 going out of there as I made my way in. But I was only able
19 to -- initially I was only able to get to basically Pulga
20 Road and Highway 70. It wasn't until later I was able to
21 identify all this stuff.

22 Q. So were you able to find a way in?

23 A. Eventually. So initially I was able to flag down a
24 Caltrans pickup truck with the road scraper in front. And
25 they initially cleared at least the community of Pulga. We
26 had a fire engine working down there, and I wanted to at

1 least have egress for them because that had been blocked off
2 by rocks. And the Caltrans operator in the pickup truck
3 didn't feel comfortable going down Camp Creek Road.

4 I told him "Hey, thank you anyway for clearing
5 Pulga and at least our firefighters have a way out." I was
6 later able to identify a private dozer that was actually
7 hired for the fire early on. It was Tom's Earth Dozer was
8 the name of the company, and they were identified as E-22,
9 which stands for equipment number 22. They are the 22nd
10 piece of equipment on the fire.

11 I spoke with Tom Funes, who was the operator. Tom
12 Funes told me he was assigned to the fire. I had asked Tom
13 Funes if he had good radio communication. He said yes, he
14 did. I asked him if he felt comfortable driving his
15 bulldozer down Camp Creek Road and to make sure that his cab
16 was environmentally sealed for fire protection and smoke
17 protection and visibility. And he said yes. So I said
18 "Make a road," and I drove right behind him.

19 I stayed with him as he was clearing rocks,
20 clearing trees. Luckily the power pole we were able to get
21 around it. That power pole was clearly damaged by the fire.
22 There was several washouts that had to be basically rebuilt
23 and portions removed for us to make access. And it took us
24 until about 1:43 p.m. to get into a change of location, I
25 should start with. So as I was driving in --

26 If I may continue.

1 Q. Yep.

2 A. As I was driving in, part of my job and part of my
3 origin investigation I was looking at those macro indicators
4 we talked about, looking at the trees, the way the trees are
5 burned, if there's soot on the rocks, all this stuff as I am
6 driving in. And as I am driving in, I am clearly in the
7 advancing -- what we call the advancing vector of the fire.
8 So I was in the right direction. I knew that.

9 And I'd say about 1:43 I got to -- I noticed kind
10 of a total change in all of the indicators. It was very
11 obvious. It went from being, you know, almost moonscaped to
12 having trees, brush, and power poles, small distribution
13 poles still standing. Trees are still standing even some
14 tress on the roadside.

15 And so I marked the location with a chartreuse or
16 green flagging. I noted the time and the GPS recording of
17 that location. And then I continued because again my job is
18 to disprove my hypothesis. So I hypothesized at this point
19 something changed. And I just kept driving to disprove it.
20 Because if that was just a smaller portion of the bigger
21 fire, I needed to know.

22 So I kept driving. I drove in a quarter mile,
23 drove to the fire's edge and realized that this was as far
24 as the fire goes. And I came back to my original location
25 that I had marked as 1:43 p.m.

26 Q. So before we start getting into that, we talked a

1 little bit earlier about the importance of gathering
2 information from witnesses; for instance, Captain McKenzie
3 as one of the first on scene.

4 Were there other persons who were identified as
5 having been present early on in the infancy of the fire?

6 A. Yes. So as I was responding to the fire, I
7 identified that this was going to be a major incident. I
8 knew that I was the only fire investigator in Butte County
9 who was on duty due to people off duty. One was on
10 vacation. People were unavailable. So I called my regional
11 support staff -- Northern Regional Support Battalion Chief
12 Ryan Finn (phonetic). I spoke with him early in the morning
13 and told him -- I had apprised him of what was happening in
14 Butte County; that we had a major incident. He already knew
15 about it. Dispatchers talk to each other. And I told him
16 that I needed additional staffing. Because a fire this big
17 requires a lot of manpower, a lot of people looking at a lot
18 of indicators and a lot of follow up.

19 And so I also identified -- as with any major fire
20 we treat everything-- we treat every fire as a crime scene
21 until we can prove otherwise. So one thing that I noted is
22 I didn't know if I was even going to be able to get to the
23 origin that same day.

24 So I also ordered security and what we call LiDAR,
25 which is like a surveying and mapping production. It's a
26 team that comes out and just plots everything and maps

1 everything. And I asked them to respond as well along with
2 additional investigators.

3 Q. One thing I just realized we skipped over. Does
4 Cal Fire give names to all these fires?

5 A. Yes, they do.

6 Q. And does Cal Fire have a standard naming convention
7 for fires?

8 A. It's typically geographic. They're not always --

9 Q. And how so?

10 A. Most fires are named either off of a geographic
11 known location either by the name of a town, a community, a
12 road, a monument, or something they can identify and that
13 can be known to responders as maybe a hint to where the fire
14 is at. Not a hint but kind of a local degree of knowledge.

15 Q. The fire to which you were dispatched on
16 November 8, 2018, shortly after 6:30 a.m., was it given a
17 name?

18 A. Yes, it was.

19 Q. And what was the name of the fire that was given?

20 A. The Camp Fire.

21 Q. And why the Camp Fire as opposed to Camp Creek
22 Fire?

23 A. We try to keep the name convention short.

24 Q. All right. Now moving back, we were asking -- I
25 was asking about identifying and interviewing witnesses and
26 obtaining photographs and videos if possible from early

1 witnesses to the fire. Were you able to identify any of
2 those in this case?

3 A. Yes.

4 Q. And who were you able to identify?

5 A. So as part of our regional response the Battalion
6 Chief and Investigator Mike Thompson also responded at
7 approximately -- Mike told me at approximately 11:00 p.m. --
8 a.m. Excuse me. At 11:00 a.m. he had contact with a
9 Caltrans worker at the Caltrans yard that is directly across
10 from what was later identified as Caribou-Palermo 27/222.
11 There is a gravel yard. There are a couple of buildings and
12 some equipment. One of the workers there had taken a
13 photograph and had shared that photograph visually with
14 Mike. I later interviewed this individual. And his name is
15 Colton Taylor. Colton Taylor provided me with the image --
16 his images of the fire at approximately 6:44 a.m.

17 Q. Now, you should have in front of you what has been
18 marked as People's Exhibit Number 5 or Exhibit Number 5 for
19 identification. I'm going to pull it up onto the board
20 here. Now, can you look at the exhibit, look at the board
21 and tell us if what is being shown on the board is the same
22 as the exhibit you're looking at.

23 A. This is the same picture.

24 Q. Okay. This is the photograph that you obtained
25 from the Caltrans employee Colton --

26 A. Taylor.

1 Q. -- Taylor?

2 A. Yes.

3 Q. Okay. Now, what does that photograph show?

4 A. This photograph is a perspective first from the
5 Caltrans yard. Right now the fire is burning up on a hill
6 up on the knob in the photograph. There are three
7 transmission towers in the vicinity of the fire more so
8 around the furthest right tower. Right now the fire
9 behavior is doing exactly what we expected it to do and what
10 our indicators told us.

11 I did not see this photograph until several days
12 after the fire. Mike Thompson told me he saw a photograph
13 that was -- he described this to me, but I did not see this
14 until several days after the fire. This fire is making a
15 small uphill run running laterally along the side here and
16 then backing down the hill. Again, the intensity here is
17 fairly low. Relative speaking on the right side of the
18 photograph, which would be the south side of the hill, the
19 intensity is much higher where it's exposed to the wind
20 again, which is what we'd expect with the conditions we had
21 that morning.

22 MR. NOEL: Madam Foreperson, it's just after
23 3:00 p.m. Would this be an appropriate time for the
24 afternoon break?

25 GRAND JURY FOREPERSON: Yes, please. Everybody
26 ready?

1 MR. RAMSEY: 15 minutes?

2 GRAND JURY FOREPERSON: Yes, please. Sorry.
3 Fifteen minutes.

4 [Recess taken from
5 3:03 until 3:25 p.m.]

6 MR. NOEL: Ready to resume?

7 GRAND JURY FOREPERSON: We are ready to resume.
8 Everybody is back.

9 MR. NOEL: Yep. The record will reflect all 19 are
10 seated in their appropriate locations and awake despite my
11 best efforts.

12 BY MR. NOEL:

13 Q. All right. Captain Kluge, we have talked a lot
14 about the location. What is around this area of Highway 70?

15 A. In reference to?

16 Q. Buildings, businesses, anything like that.

17 A. I guess more specifically like which area of
18 Highway 70? There's kind of --

19 Q. Let's start with this photograph that we have on
20 here People's Exhibit Number 5. There is obviously a
21 building in the foreground of this picture.

22 A. Yes.

23 Q. Do you know what that building is?

24 A. I do.

25 Q. What is that building?

26 A. That is the Caltrans maintenance yard at Pulga.

1 Q. Okay. So describe for us the Caltrans maintenance
2 yard in Pulga.

3 A. The Caltrans maintenance yard consists of several
4 buildings, equipment, gravel yard. It's -- I don't know the
5 exact acreage of the facility, but it's a prominent location
6 just past the Pulga bridge on Highway 70. When I say
7 "past," I mean east of the Pulga bridge.

8 Q. Okay. Earlier one of the landmarks you mentioned
9 was the Poe Dam.

10 A. Yes.

11 Q. What is the Poe Dam?

12 A. Poe Dam is a generation station. I believe it's
13 owned by Pacific Gas & Electric Company, and it generates
14 electricity.

15 Q. To your knowledge, are there people that work at
16 the Poe Dam?

17 A. There are.

18 Q. Are there other PG&E facilities in this area of
19 Highway 70?

20 A. Several, yes.

21 Q. Which ones?

22 A. That I know of, I'm familiar with Rock Creek
23 Powerhouse, Caribou 1 and 2 Powerhouse. There's several
24 others there that I don't know the exact names of them.

25 Q. Crest?

26 A. Crest, yes.

1 Q. Poe Powerhouse?

2 A. Yes.

3 Q. So where we left off was I was asking about if you
4 made efforts as part of your investigation to identify
5 persons who like Colton Taylor would have been present
6 during the infancy of this fire and may have observed the
7 fire and may have photographed the fire?

8 A. Yes. We were able to review the 9-1-1 calls that
9 came in to the Emergency Command Center. One of those phone
10 calls -- one of the first phone calls that came in came from
11 the Rock Creek Powerhouse, and they identified that there
12 was a worker in the area that had reported via their own
13 radio frequency that there was a fire in the area of Poe
14 Dam. And it was related to our ECC by landline. And so we
15 tried to follow up with that individual unsuccessfully.
16 However, we did put a request to Pacific Gas & Electric
17 Corporation for any photographs they may have had of the
18 fire. And we did receive one. Two, I believe. Two
19 photographs as part of a package.

20 Q. Okay. Now, I want to direct your attention to what
21 has been marked as People's Exhibit Number 2 in front of
22 you. Do you have that?

23 A. I do have it.

24 Q. Do you recognize that photograph?

25 A. I do.

26 Q. Do you recognize what is depicted in that

1 photograph?

2 A. I do.

3 Q. You can see up here on the big screen I have a
4 photo displayed. Is that identical -- that photograph
5 identical to what you're looking at People's 2?

6 A. Yes, it is.

7 Q. And explain to us what we're looking at and where
8 it comes from.

9 A. This is the photograph that was provided to us by
10 Pacific Gas & Electric Company as one of their -- one of
11 their data productions we requested from them. This was a
12 photograph, according to PG&E's response, that was taken by
13 an individual by the name of Jerry Parks. And this is a
14 photograph taken from -- what I believe to be from
15 Highway 70 near the Caltrans yard.

16 Q. Now, let's move on to Number 3. Do you recognize
17 the photograph marked as Exhibit Number 3?

18 A. I do.

19 Q. What is depicted in Exhibit Number 3?

20 A. Exhibit Number 3 is a similar photograph to
21 Exhibit 2. This was also presented to us in the Pacific Gas
22 & Electric data production and was presented to us. It was
23 supposed to come from Jerry Parks.

24 Q. Now, the photograph that you have in front of you
25 Exhibit Number 3, is that the same photograph that is
26 displayed on the big board for the jury?

1 A. Yes, it is.

2 Q. Do you have an idea as to the location from where
3 this photograph was taken Exhibit 3?

4 A. Having worked in the area, I do recognize the
5 gravel piles that are on either side of the photograph. I
6 recognize this area. The photograph is likely to have been
7 taken near the Caltrans yard.

8 Q. Where would this be in proximity to where Colton
9 Taylor was taking his photograph?

10 A. This would have been basically right outside -- if
11 Colton's photograph was taken inside the Caltrans yard,
12 which it appears to have been, this photograph was taken
13 just outside the gate or close to the gate of the Caltrans
14 yard.

15 Q. Now, what does this photograph Number 3 tell us
16 about the fire?

17 A. So this photograph shows the fire in a stage of
18 higher burn than we have seen in other photographs. What we
19 see in this photograph and from what we're able to tell on
20 the information provided within what we call the MedData of
21 the photograph, this photograph was taken at approximately
22 6:44 a.m. That was just the information that was imbedded
23 within the photo. So that's as accurate as the equipment it
24 was taken on.

25 Q. Okay. Let me back up on that. What is MedData?

26 A. MedData is the information that is imbedded within

1 a digital photograph. It includes information such as --
2 can include information such as the time the photograph was
3 taken, where the photograph was taken if it's a GPS-enabled
4 device, the raptor speed, the lighting conditions it's taken
5 under, whether a flash was used or not used. Anything that
6 could be -- any feature to a camera may have -- could be
7 imbedded in the MedData including the device it came from.

8 Q. How do you know how to check or obtain MedData from
9 digital photographs?

10 A. MedData is a technique that is taught to us while
11 going through our standardized -- Peace Officers
12 Standardized Training. Part of our evidence collection is
13 to identify that information within a photograph.

14 Q. Is this something you've done before?

15 A. Yes, it is.

16 Q. So you said that Number 3, according to the
17 MedData, was taken at approximately 6:44 a.m.?

18 A. Yes, on November 8th.

19 Q. Now, let's back up to Number 2. Okay. We will
20 start it over from here.

21 Okay. Number 2. Were you able to obtain MedData
22 off of Number 2 also?

23 A. I was.

24 Q. And what time does the MedData from Number 2
25 indicate that that photograph was taken?

26 A. Also at 6:44 and some seconds and some milliseconds

1 later.

2 Q. Does the MedData identify the seconds?

3 A. It does.

4 Q. And Number 2 what is the exact time that that photo
5 was taken according to the MedData?

6 A. Can you ask the question again.

7 Q. For Exhibit Number 2, according to the MedData what
8 was the exact time including the second that it was taken?

9 A. I would have to look at the exact second again. It
10 was also within 6:44 and I believe 21 seconds, but I'd have
11 to look at the MedData to be accurate.

12 Q. And how about going back to Number 3. You said it
13 this was 6:44?

14 A. And 06 seconds. But again, I would have to look at
15 the MedData to be accurate.

16 Q. Okay. We can go back and check that later.

17 All right. So let's move on now. And you have a
18 photograph Number 4 in front of you?

19 A. Yes.

20 Q. Recognize that photograph?

21 A. I do.

22 Q. Do you know what is depicted in that photograph?

23 A. I do.

24 Q. Did you take that photograph?

25 A. I did.

26 Q. Is the photograph marked Number 4 that you have in

1 your hand the same photograph that is displayed on the
2 board?

3 A. Yes, it is.

4 Q. What is this photograph depicting?

5 A. This was a photograph that I took once I was able
6 to identify the general origin area. This was a photograph
7 that I took while trying to document that area and just the
8 surrounding view in the photograph. It captures the
9 Caltrans yard and the gravel piles that I believe are in
10 Exhibit 3.

11 Q. Do you want to step down and use the big board and
12 the drawing tools again --

13 A. I do.

14 Q. -- to point out what it is you're talking about on
15 this?

16 A. So he talked about Exhibit 2, and the gravel piles.
17 I believe there are two gravel piles in Exhibit 2 and I
18 believe this (indicating) is the lighter-colored pile and
19 this (indicating) would be the darker-colored pile.

20 Q. So those are the piles of gravel that are in the
21 foreground of the photograph marked 2?

22 A. Yes.

23 Q. Now, does it this photo show the Caltrans yard?

24 A. Yes, it does.

25 Q. And where is the Caltrans yard in this photograph?

26 A. Highlighted in yellow.

1 Q. So for the record, the two gravel piles alongside
2 Highway 70 in the photograph have been highlighted in blue
3 and the highlighted yellow pen has been used to surround the
4 Caltrans yard; is that correct?

5 A. Yes.

6 Q. And just to give us some idea of location and
7 context here, the road running down there that we can see in
8 the photograph is Highway 70?

9 A. Yes, it is.

10 Q. Where is the Feather River?

11 A. The Feather River is not entirely visible because
12 of the angle of the slope. If we can see through the
13 mountain -- and this is strictly an estimate -- I'd say the
14 Feather River is probably down here (indicating).

15 Q. And you are drawing the florescent green line
16 across the photograph to demonstrate the approximate
17 location of the Feather River?

18 A. Approximately, yes.

19 Q. Okay. So Colton Taylor who was in that box -- in
20 the highlighted yellow box inside the Caltrans yard and
21 Jerry Parks who was somewhere on Highway 70 looking across
22 the two gravel piles highlighted in blue; is that correct?

23 A. I believe so.

24 Q. And they're looking up to where you're taking this
25 picture from; is that --

26 A. That is the best of my understanding, yes.

1 Q. Okay. You're somewhere inside the fire semicircle
2 that you -- that is depicted in the photographs?

3 A. Yes.

4 Q. Okay. Great. All right. So now we can go --
5 well, you can stay up here.

6 Do you have the photographs?

7 A. I do. They are right here.

8 Q. All right. So when we kind of took that little
9 diversion to look at the photographs, you were just starting
10 to identify the general area of origin. You had gone up
11 Camp Creek Road following the bulldozer, identified an edge
12 to the fire. And you said you drove past, checked
13 everything, and then you came back.

14 A. I did.

15 Q. And what did you do at that point?

16 A. At that point, I had met with Battalion Chief
17 Officer Mike Thompson and Assistance Chief Investigator
18 Officer Shawn Zimmermaker. They both came as part of the
19 regional response. The three of us -- I discussed with them
20 my findings. They concurred what they saw coming in that,
21 yes, the road coming into that location was in the advancing
22 vector. So we were on the same page or in agreement. And
23 then all taking a separate path we just started following
24 all the fire flow indicators. And that basically brought us
25 up the hill to the location that I took this photograph
26 from.

1 Once I -- and as we were working our way up the
2 hill, once we started getting into some of those little fine
3 macros -- so smaller macros which are the bigger ones and
4 some of the micro indicators -- we started setting pin
5 flags. So the pin flags that we use are quite simply; a
6 wire pin with a color flag on them usually made of cloth or
7 plastic.

8 Those flags represent the totality of the
9 indicators in the specific area. So if I'm walking up the
10 hill and I see 12 different indicators that tell me I'm in
11 the advancing vector, I will set a red flag down. If I see,
12 you know, another 15 indicators that say that I'm in the
13 backing vector, I will set a blue flag down. And so on and
14 so forth for all of our different vectors we call them. We
15 have advancing, which is always going to be red, backing
16 which is always blue, lateral which is always yellow,
17 anything of interest is green, and evidence or/and origin
18 would be -- a very specific origin would be a white flag.

19 And that's all based off of NWCG; National
20 Firefighter Coordination Group. And it's part of the
21 curriculum, the fire investigative curriculum that teaches
22 how we do our investigations. The standardized training
23 tells us to use those colors in that convention.

24 So I'm placing my flags. Mike is also placing
25 flags. And Zimmermaker didn't have flags with him, but he
26 gave good strong moral support. So as we are setting flags,

1 we are also observing the weather, fire behavior around us,
2 any potential hazards which there were many that day. But
3 we're trying to document as much as we can while we are
4 there.

5 We did identify early on that there is some serious
6 safety concerns. The fire is still burning. The fire is
7 burning within our direct proximity. We have safety gear,
8 but our escape route is very steep, very dangerous, not good
9 footing. If anything were to go sideways, we were kind of
10 in a bad position. Winds were blowing extremely strong.
11 There was a potential for re-burn with fire below us. We
12 were unsure if anything in the area had been de-energized.

13 Okay. See in this photograph, which is still
14 Exhibit -- what is this? Exhibit 4. I'm standing under the
15 transmission lines and we have again winds that are up here
16 on the top of the ridge seriously affecting my ability to
17 stand upright. So if -- with these safety factors in mind,
18 we concluded that we needed to do a very efficient initial
19 origin investigation and get off the hill for safety
20 concerns. But we wanted to document as much as we possibly
21 could because we didn't know when we'd be able to come back
22 in. And so we took as many photographs as we can, put as
23 many flags down as we possibly could, did a confirmation on
24 each other's work to make sure we were seeing the same
25 things and in agreement, and then we got off the hill
26 posthaste.

1 Q. All right. So I'm going to switch back to the
2 photograph marked as Number 6.

3 A. Okay.

4 Q. There we go. You talk about walking up the hill.
5 And I'd like you using this photograph to explain to the
6 jurors what you're talking about.

7 A. Not the best photo to explain the hill, but I will
8 do my best. So as we talked about and just to make sure we
9 are talking about the same language here, I'm looking at
10 Exhibit 6 and the photograph on the screen is Exhibit 6.

11 I kind of testified earlier how steep this hill was
12 and the angle that it was on. The direction that we came in
13 and traveled on we actually traveled through the black areas
14 because in my world that's the safest place to be. We call
15 it black which is the burn area. We try to always walk in
16 the black area. The fire has the least chance of burning us
17 although it does have potential.

18 Coming in from this direction was extremely
19 dangerous. If the fire made a complete reversal on us, we'd
20 be in a very bad position especially with the fire behavior
21 and activity that we had that day. We actually came in
22 through the valley of the bridge or two bridges. That was
23 where we first identified our change in vectors. We went
24 from the advancing vector to lateral and to a backing
25 vector. Again, the backing vector over here is our lateral
26 and over here is our advancing.

1 So we came up -- when I say "came up," we were off
2 scene and behind up the top here. I would say it's
3 somewhere in the neighborhood of about 6 to 700 feet
4 elevation change. But I would have to compare that on a map
5 for accuracy. And that is my best estimation for my
6 experience.

7 Q. At the time when you are hiking up there, are you
8 aware at that point that there is an insulator string
9 hanging upside down on this tower?

10 A. No.

11 Q. Now, I want to move on to the next photograph that
12 is better. And that is Number 7. Okay. And do you have
13 Number 7 with you?

14 A. I do.

15 Q. Do you recognize Number 7?

16 A. I do.

17 Q. Did you take Number 7?

18 A. I did.

19 Q. Do you see the photograph that is being displayed
20 on the big board?

21 A. I do.

22 Q. Is that photograph the same as the photograph
23 marked as Number 7 that you have in your hand?

24 A. It is.

25 Q. So this photograph now is from up above near the
26 base of that tower?

1 A. Yes.

2 Q. Does this show a little bit better the terrain you
3 were -- that you were hiking and what you were dealing with
4 hiking up to this tower?

5 A. Yes, it does much better.

6 Q. Describe for us what we're seeing.

7 A. So speaking of terrain, if you can imagine this
8 piece of metal right here on the tower that I'm pointing to,
9 which is the lower-most horizontal on the east side of the
10 tower, is actually level as I'm looking up at the tower.
11 And this kind of shows the type of slope we're working on.
12 So it's pretty steep. The ground is either extremely rocky
13 or extremely sandy and nothing in between. What's left we
14 have to work with is very difficult to access. It was
15 arduous work to carry out all our gear and investigative
16 equipment with us which consists of a backpack with a bunch
17 of heavy items.

18 So this area is pretty well protected from most
19 foot traffic. I didn't see any recent evidence up there of
20 any foot traffic being up there. So in my mind I'm already
21 starting to develop different hypotheses and I am starting
22 to eliminate things as I find them fit to be eliminated.

23 So one of my initial hypothesis was "Okay. It's
24 November. It's very likely that somebody could be up here
25 shooting, hunting. Anything like that." But I found no
26 evidence up there that told me there was anything like that.

1 So it's a pretty secluded, pretty isolated area.

2 And as the three of us are walking up, we are
3 setting pin flags. We are identifying little things that
4 are unusual. That is what this green flag is here. There
5 is a piece of ceramic material right here (indicating). It
6 might be something. Don't know yet. It's not evidence.
7 It's not marked as a white item yet but definitely an item
8 of interest.

9 But as we are walking up, Officer Mike Thompson
10 Battalion Chief says "That doesn't look right." And so we
11 all looked up because we were looking down at the ground
12 looking at indicators, following indicators for a scientific
13 process and counterclockwise kind of rotation. And I look
14 up and I see this.

15 And if I may draw on the board again.

16 Q. Yes.

17 A. What I initially identified and agreed with
18 Officer Thompson is this item right here that I'm
19 identifying in red is an inverted insulation suspension
20 string. So that item is supposed to be supporting a
21 conductor. Adjacent to it on the same tower on the same
22 side of the tower on the side again in red I'm identifying
23 another insulation string that appears to be in the correct
24 position.

25 I identified this when Officer Thompson pointed it
26 out and determined that is an important picture to take. So

1 I immediately photo documented it. So this is the first
2 up-close photograph that I have showing any type of damage
3 to the tower later identified as the Caribou-Palermo 27/222
4 tower.

5 Q. So this tower that we're looking at in photograph
6 Number 7, that is the same tower that we're were looking at
7 in photograph Number 6 which was the initial photograph that
8 you shot; correct?

9 A. Can I clear this?

10 Q. Yes, clear that.

11 A. Yep.

12 Q. So now we're close up to it. That is the same
13 tower that is depicted here and in Colton Taylor's
14 photograph?

15 A. Yes, it is.

16 Q. And is there anything -- I should go back to it.
17 Is there anything distinctive about this tower as opposed to
18 all the other towers in these lines that helps you to
19 identify that this is the tower in question?

20 A. There are a few things identifying it. Initially,
21 just from a quick glance from the roadside you can identify
22 one of -- this type of tower by a few things. So just an
23 aside from the specific type of tower, there is a
24 superstructure on top of this tower. It forms a "T." The
25 tower next to it had the same "T." That's a superstructure.
26 That makes it what we call a transposition tower. A

1 transposition tower, as I have been told by one of our
2 electrical engineers, is used to kind of balance the
3 electricity.

4 So there's a lot of physics involved with the
5 transmission of electricity. There are forces that are
6 incurred upon the line. So there is induction. And there
7 is somebody who can speak on this who is a scientist
8 specifically within the field. But there are certain things
9 that they rotate these phases, the different phases to
10 basically bounce electricity.

11 So this tower is a little bit different than the
12 towers that are west of it. So it kind of stands out.
13 There is also another one of these arms sticking out. I
14 cleared that one. Anyway, I will redraw it. No. These
15 arms here also are part of the transposition setup. There
16 is only a handful of these throughout -- more than a
17 handful. There is several of them throughout the canyon
18 that look like this, but most of the rest of them are flat
19 across the top and don't have these extra hardware on them.
20 So that was identifiable. And I don't have -- I don't think
21 I provided the -- I don't think the other photographs show
22 the tower number very well.

23 Q. No.

24 A. On the tower there's a number. It says 27/222.
25 It's written -- it's painted directly on the tower. And the
26 tower has a panel on it that says "27/222." We identified

1 that and took the information back. We didn't know what it
2 meant, but we knew it had to be something. So we recorded
3 that as well.

4 Q. So when you refer to the tower as 27/222, that is
5 where the information comes from?

6 A. Yes.

7 Q. That is a number that is actually affixed to the
8 tower itself?

9 A. Yep.

10 Q. And if you look at the other towers --

11 A. Several.

12 Q. -- do they have this same number on them?

13 A. They have a similar type of number convention but
14 not the same number. Every tower has its own number. And
15 it's -- I have learned the convention is the first number --
16 the 27 is the mileage from the power substation or the power
17 station that it came from or the generation station where
18 the power is coming from. And the second number, the 222 in
19 this case, is just the sequence number for the tower in that
20 line. So it's basically two different measurements. How
21 many miles and how many towers away from the power source.

22 Q. So this tower would be 27 miles away from the power
23 source and tower number 222 in the line?

24 A. Yes.

25 Q. And you were able to identify that line as the
26 Caribou-Palermo transmission line?

1 A. Yes, we were able to identify that through
2 confirmation from PG&E.

3 Q. Now, going back to our earlier photographs, we had
4 talked about the distinctive factors in the first
5 photograph -- Colton Taylor's photograph -- is the T-top
6 structure visible on that photograph?

7 A. It's clearly visible to me, yes.

8 Q. And then there is the Jerry Parks photograph going
9 back to People's Number 2.

10 A. And the transposition superstructure is clearly
11 visible to me.

12 Q. And which part of it -- if you can use the drawing
13 map on there again and show us.

14 A. Again, there is the T on tower 27/222 and these are
15 the other superstructures on the towers in the same line.

16 MR. NOEL: For the record, he's highlighted in
17 green the T structure -- capital T structure on top of the
18 tower with the green highlighter pen.

19 BY MR. NOEL:

20 Q. All right. So let's get out of that. So you're
21 wandering around up there, and Chief Thompson says "That
22 doesn't look right." And you turn and you notice something
23 unusual about this tower which you identify as 27/222;
24 correct?

25 A. Correct.

26 Q. And you said you started photographing it to

1 document it immediately?

2 A. Yes.

3 Q. Now, I have in front you a photograph marked
4 Exhibit Number 8 that is -- do you recognize that
5 photograph?

6 A. I do.

7 Q. Did you take that photograph?

8 A. I did.

9 Q. Is the photograph you have in your hand Exhibit
10 Number 8 the same photograph that is being displayed on the
11 big board at this time?

12 A. It is.

13 Q. Describe for us what we're looking at in Exhibit 8.

14 A. So this is a moderately zoomed-in photograph
15 similar to Exhibit 7. It's a little bit different
16 perspective and a little bit further from the east but not
17 much.

18 This photograph's main intent was to capture in
19 this photograph what this tower looked like referring to
20 transition tower 27/222 on the Caribou-Palermo line and the
21 neighboring tower on the same line who had a similar type
22 structure on the east side of that tower. And I would have
23 to verify that specific tower number and line.

24 Q. Again, does this photograph show the insulator
25 string upside down?

26 A. It does.

1 Q. If you can show us use the marking app or the
2 drawing app -- it seems to take longer to start each time.

3 A. Patience. Here is the insulator string that is
4 inverted.

5 Q. Now, you have used a term a few times. And I think
6 this photograph is a good one to illustrate it. The
7 conductor or the jumper conductor. Can you identify for us
8 on this photograph what is the jumper conductor.

9 A. Yes. It's what we have been referring to as the
10 transposition conductor.

11 Q. Okay. Transposition conductor is another word?

12 A. Yep. Again, if I'm being too technical. This
13 transfers the right phase to the left phase. So the right
14 phase coming into this tower gets transpositioned onto the
15 left phase going out of the tower towards Palermo.

16 Q. Okay. Probably at this point it's a good chance to
17 define what you mean by "phase."

18 A. So in blue I have identified where that conductor
19 is; the transposition conductor. So a phase is a term used
20 in electrical sciences to describe the pulse. So there is a
21 different phase you can do with electricity. So typically a
22 house has what we call a single phase. As we know, it's an
23 alternating current. You have an up-and-down arc. We have
24 highs and we have lows across a variable medium. Those
25 highs and those lows are single phase. They just look like
26 a regular wavelength.

1 However, commercial electricity, in order to be
2 more efficient with power, there is actually three separate
3 phases. That means there is three actual wavelengths. And
4 I'm going to draw it up here in blue just to --

5 Q. Go ahead.

6 A. -- make it more visual than I am. So you have -- a
7 single phase has a wavelength just like you see here. Here
8 is your column line and a neutral line. There is no power
9 happening. On these phases you basically have the same
10 line, but it looks -- you actually have different
11 wavelengths working together. And so what that does is it
12 gives you kind of a more opposing piece so they are both
13 high electrical currents on either side. So that is
14 basically three phrase in a nutshell.

15 And what we have here is each one of these lines is
16 basically coming with a pulse at 60 hertz per second. And
17 that is each one of these colors represents these lines. So
18 this would be red. This would be black. This would be
19 green. And so it is rotated to kind of balance out static
20 electricity and all that other stuff that gets kind of
21 induced on the lines.

22 Q. So basically each one of the lines -- the
23 electrical lines that comes into the transposition tower is
24 referred to as a phase?

25 A. Yes, it is.

26 Q. Now, you have also used the term conductor. What

1 is that? What is a conductor, to your knowledge?

2 A. A conductor is a firewall; anything that can move
3 heat or electricity. In electricity world in what I
4 learned. If I may, in electricity a conductor is either
5 steel, aluminum, or copper wire that can transport
6 electricity vision ly.

7 Q. So when you say a -- that the conductor and the
8 transposition conductor or the jumper conductor or the
9 electric conductor itself, we're talking about the wires?

10 A. Yes.

11 Q. What most of us would refer to as the wires?

12 A. Yes.

13 Q. The power lines?

14 A. Yes.

15 Q. Okay. But then technically they are also referred
16 to as phases as they come in and out of the towers?

17 A. Yes.

18 Q. And then on this tower there are three phases, and
19 they go from right to left. And they are called right,
20 center, left; correct?

21 A. Yes. So if I may elaborate on that, I clarified
22 with Pacific Gas & Electric, which I have been referring to
23 as PG&E off and on. The way they identify their phasing is,
24 if I can explain without losing myself in the explanation,
25 with your back phasing the generation source -- in this case
26 Caribou Powerhouse -- and if you're looking at the tower,

1 you have right, center, and left phase.

2 So right now I am looking uphill towards the right.
3 Now I am looking uphill towards the generation station. If
4 I turn my back this way, it would be the right, center, and
5 left.

6 Does it make sense? Okay. I can get highly
7 technical sometimes. And forgive me for that.

8 Q. You said this line -- the Caribou-Palermo line
9 originates at the Caribou Powerhouse?

10 A. Yes, as provided to us by PG&E.

11 Q. Earlier you said that the wire comes out on, you
12 know, the transposition line. It goes from the right phase
13 down under, comes up on the left phase, and then comes out
14 of the transposition tower heading down the line towards
15 Palermo?

16 A. Yes.

17 Q. So do we know why it's call the Caribou-Palermo
18 line?

19 A. Because it starts at Caribou and ends in Palermo.
20 And that is the naming convention that has been used
21 since -- as I understand since this line has been in place.
22 And all the lines in California within the PG&E company, as
23 far as I know, it's always -- as far as I know it's always
24 named for where the electricity starts on that line to where
25 it ends on that line.

26 So it may be a generation station, it may be a

1 substation, it may be a switch station, but basically from
2 control point to control point that is how they name them.

3 Q. All right. So you guys are up here taking
4 pictures. And let's go over that real quick and move along.

5 Next up is a photograph marked as Exhibit Number 9.
6 Do you have Exhibit Number 9?

7 A. I do.

8 Q. Do you recognize what is depicted in Exhibit
9 Number 9?

10 A. I do.

11 Q. Did you take People's Exhibit Number 9?

12 A. Yes, I did.

13 Q. And see the photo that is being displayed on the
14 big board for the jurors?

15 A. I do.

16 Q. That is the same photograph that you have in front
17 of you? Number 9?

18 A. It is.

19 Q. This looks like it's a photograph of somebody's
20 cellphone.

21 A. That is. That is my work-issued cellphone.

22 Q. Why are we looking at a photograph of somebody's
23 cellphone?

24 A. One of my documentation techniques is to bring up
25 my GPS Essentials application on my work-issued Samsung
26 phone and use that as my GPS. It gives me several things.

1 Number one, I've compared it to hand-held versions of GPS by
2 Garmin, et cetera. This has a very similar accuracy from
3 what I can tell. It also gives me the accurate timestamp.
4 So I use this as a documentation tool to show my location
5 with a network-accurate timestamp.

6 Q. So where were you when you took this picture?

7 A. I took this photograph right after I took the two
8 previous photographs documenting the tower. I wanted to
9 identify the time and location I took those photographs.
10 Again, I did not know if I'd be able to return to that
11 location.

12 Q. Or if this location would look the same if you did
13 get back?

14 A. Or if it looked the same when I got back. I
15 believe this photo was taken at 2:12 p.m. Yep, 2:12 p.m.

16 Q. So how much work were you able to get done on the
17 afternoon of November 8th?

18 A. We were able to work on the south side of the
19 tower. We did kind of cross under the power lines a few
20 times but minimally. We were concerned about the stability
21 of the tower, the stability of the conductors, whether or
22 not if it was going to fall, stand. We already had damage.
23 We were unsure of what the outcome is going to be with the
24 winds given. And I'd have to look at my last photograph
25 timestamp, but I believe we were only up here for
26 approximately one hour getting work done. But we got -- I

1 would say we were able to get a 360 view of the tower and we
2 were able to get probably 60 percent of the origin flags
3 placed that first day.

4 Q. So describe the actual work that you accomplished
5 that first day.

6 A. We were able to identify, first off, a GOA. That
7 is -- the first step is to identify a general origin area.
8 Like, that is the -- you know, where is our starting point
9 of our origin. In this case, it was about 100 feet. So
10 about a quarter acre was the size of our GOA.

11 Q. The GOA means?

12 A. General origin area.

13 Q. Okay.

14 A. On this day we were also able to identify three
15 specific origin areas. Those three specific origin areas --
16 one was located directly east of the tower, one was located
17 directly south of the tower, and the other one was kind of
18 southwest of the tower kind of in a line.

19 That day we did identify a couple pieces of
20 aluminum conductor fragments within one of the GOAs, the
21 specific origin area. That first specific origin area had
22 two -- what looked like two fragments of conductor wire.
23 And it appeared -- all our indicators told us that this was
24 an origin area because we had an initial point, we had
25 backing fire in all directions, which tells me super low
26 intensity, really low movement, still protected because it's

1 close to the ground. It hadn't build up any heat. It
2 wasn't influenced yet by the wind, topography, or fuel.

3 Our second SOA was definitely bigger than our first
4 SOA. It was basically a half radius about ten meters in
5 diameter directly to the south of the tower. And our third
6 SOA was about seven feet in diameter. And that was again
7 just southwest of the tower. All three of these had the
8 line.

9 Q. So we talked earlier about in general how you look
10 at -- how you determine general areas of origin and specific
11 areas of origin and ultimately going into cause. Can you
12 explain for the jurors how it was in this specific case --
13 what the indicators were -- the micro indicators, the macro
14 indicators. What was it that brought you into the general
15 area of origin and the general origin area and eventually to
16 the specific origin areas?

17 A. Yes. I kind of talked to you about using the
18 macros and some of the larger micro indicators to get us in
19 the general origin area. And I got into the general origin
20 area and started looking at ways we define details. It was
21 really down on the ground. We are looking at the sides of
22 rock for sooting and staining or basically where the smoke
23 is deposited. We are looking at areas where you have grass
24 that is unburned. It's hiding behind a rock and being
25 protected.

26 We're looking at how you could have fuels in an

1 area that are unburned or you have small fine grasses that
2 are burned, which kind of gives us the intensity. All these
3 factors are kind of taken into consideration.

4 I talked about the stem fall we were looking at.
5 We saw some of that up there. I didn't even know what they
6 were. There was some sort of a seedpod that was up there.
7 Those are great little indicators kind of on the outlying
8 area because those showed really good shifting, bending,
9 twisting, and burning on one side and would be completely
10 whole on the other. I believe we had -- I think we have an
11 exhibit here for that too as well.

12 So all of these indicators we take into
13 consideration, everything in a specific area. And that is
14 where you determine how the flags are going to go. And then
15 once we set all of our flags, it's almost like painting a
16 picture. Every stroke doesn't really show you the whole
17 picture. But once you've done all your paint strokes and
18 all the flags are down, you kind of stand back and take a
19 look. And you can really just kind of see -- once you
20 understand what blue means, what yellow means, what red
21 means, you can just kind of see how the fire moved. And if
22 you know how the fire moved, you can track that back to this
23 specific area. And that specific area is where they
24 identify it as a specific origin area.

25 In this case, we actually had three of those in a
26 very confined -- relative confined space were the size of

1 our GOA.

2 Q. One thing I noticed as I was looking at this
3 photograph marked as Number 9 as well as looking back to 8
4 and 7, we don't see a whole lot of grass or vegetation.

5 A. On this side we do not.

6 I'm sorry. Which one were you talking about?

7 Q. Seven, 8, and 9.

8 A. Seven, 8, and 9.

9 Q. I have all three pictures.

10 A. So, yeah. There is -- well --

11 Can we bring up 8 and 9 into the lower area?

12 Q. Absolutely.

13 A. So actually, there is quite a bit of vegetation
14 here. Initially, from those first photographs if you're not
15 really looking at it, I guess, through origin and cause
16 eyes, it looks pretty barren. But there is actually quite a
17 bit of unburned fuel until here. There's still like a lot
18 of unburned fuel. For the way this fire was burning and the
19 way the fire was kind of running through the rest of Butte
20 County, right here it was really, really low intensity,
21 really low intensity, which tells me that the fire started
22 right in this area. And all my indicators validate that.

23 But when I first see all this unburned fuel and
24 everything around it is moonscaped, that tells me that this
25 is where the fire was its least intense. And typically, in
26 my experience the top of a ridge, the top of a knob usually

1 gets some of the most amount of heat because not only is it
2 going to be influenced by the fuels and the vegetation, it's
3 also being influenced by the slope, running up hill with
4 heat, but it's also influenced by the wind. And so if the
5 fire started anywhere but here, I'd expect this to be
6 completely moonscaped. There is no vegetation anywhere up
7 here save for a few small protected areas hiding behind
8 rocks. But we have some way out in the open and other that
9 should have been completely consumed.

10 So the more I went through this -- and that is just
11 in the first day and the first hour of me being at the
12 GOA -- I could not disprove this. So there was quite a bit
13 of vegetation there.

14 Q. You said you spent about an hour up on this
15 location -- yours, Chief Zimmermaker, and Chief Thompson --
16 on the afternoon of November 8th?

17 A. Yes.

18 Q. And then you had to leave?

19 A. Yes.

20 Q. And how long was it before you could get back to
21 this location?

22 A. Well, we weren't able to return until Saturday; two
23 days later.

24 Q. Is that Saturday, November 10th?

25 A. Yes.

26 Q. Why weren't you able to get back up there?

1 A. When we left the site, the GOA -- after documenting
2 everything as best as we could and as efficiently as we
3 could, we were unable to return because the fire activity
4 had increased so severely that access to this location was
5 impossible.

6 Q. So you couldn't get back?

7 A. No. For safety there was no -- the risk was too
8 great.

9 Q. You had talked earlier about the possibility of a
10 re-burn and a possibility of the wind shifting blowing the
11 fire back. Did either of those occur?

12 A. Yes. Both of those occurred as we expected them to
13 with the weather pattern that was presented.

14 Q. So this whole area burned one more time before you
15 could get back in there to finish up?

16 A. Significantly, yes.

17 MR. NOEL: All right. Madam Foreperson, I believe
18 it's after 4:20. This would be a nice natural breaking
19 point for the day.

20 GRAND JURY FOREPERSON: Okay. Does everybody want
21 to leave or stay?

22 GRAND JUROR NUMBER SEVENTEEN: Another hour,
23 please.

24 MR. NOEL: We get paid until 5:30 you know.

25 GRAND JURY FOREPERSON: Captain Kluge --

26 THE WITNESS: Kluge.

1 GRAND JURY FOREPERSON: Kluge -- I'm sorry -- you
2 are admonished not to discuss or disclose at any time
3 outside of this jury room the questions that have been asked
4 of you or your answers until authorized by this grand jury
5 or the Court. A violation of these instructions on your
6 part may be the basis for a charge against you of contempt
7 of court. This does not preclude you from discussing the
8 legal rights with your own attorney.

9 Captain Kluge, what I have said -- just said is a
10 warning not to discuss the case with anyone except the
11 Court, your lawyer, or the district attorney.

12 THE WITNESS: Okay.

13
14 [DISCUSSION OMITTED.]

15
16 [Exhibits 4, 6, 7, 8, 9
17 received into evidence.]

18
19 [Matter adjourned at 4:30 p.m.]

20 --oOo--
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26

COURT REPORTER'S CERTIFICATE

This is to certify that I, Lisa McDermid Welch, a Certified Shorthand Reporter of the State of California was present at the time and place the foregoing grand jury proceedings were had and taken in the within matter; and that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings; and afterwards caused my said shorthand writing to be transcribed into typewriting; and the foregoing pages, beginning at the top of Page 1 to and including Page 83 hereof, constitute a full, true, accurate, and complete record of the proceeding.

DATED: This 6th day of June, 2022.

Lisa McDermid Welch

LISA MCDERMID WELCH, CSR, RPR
CSR LICENSE NO. 10928

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

REDACTED

BCSC-2019-GJ-01

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, APRIL 16, 2019

VOLUME 3

OROVILLE, BUTTE COUNTY, CALIFORNIA

LISA MCDERMID WELCH, CSR 10928, OFFICIAL COURT REPORTER

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I N D E X

WITNESSES:

PAGE

CAPTAIN THOMAS KLUGE

Continued Examination by Mr. Noel

06

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3	EXHIBIT	DESCRIPTION	INTRODUCED	ADMITTED	EXCLUDED
4	10	Photograph	07	118	
5	11	Photograph	17	118	
6	12	Photograph	18	118	
7	13	Photograph	26	118	
8	14	Photograph	28	118	
9	15	Photograph	30	118	
0	16	Photograph	30	118	
1	17	Photograph	32	118	
2	18	Photograph	34	118	
3	19	Photograph	36	118	
4	20	Photograph	38	118	
5	21	Photograph	39	118	
6	22	Photograph	39	118	
7	23	Photograph	40	118	
8	24	Photograph	40	118	
9	25	Photograph	42	118	
0	26	Photograph	43	118	
1	27	Photograph	48	118	
2	28	Photograph	56	118	
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4	30	Photograph	61	118	
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19	49	Photograph	89	118
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1 OROVILLE, BUTTE COUNTY, CALIFORNIA

2 APRIL 16, 2019; 8:35 a.m.

3 (Confidential Grand Jury Hearing Proceedings)

4
5 [ROLLCALL OMITTED.]

6
7 [DISCUSSION OMITTED.]

8
9 GRAND JURY FOREPERSON: Okay. Good morning,
10 Captain Kluge. I'd like to remind you that you are still
11 under oath at this time.

12 THE WITNESS: Yes, Ma'am.

13 GRAND JURY FOREPERSON: Thank you. You can have a
14 seat.

15 THE WITNESS: Thank you.

16 **EXAMINATION CONTINUED**

17 BY MR. NOEL:

18 Q. When we left off last week, Captain, we were
19 talking about Exhibit Number 9. It's a photograph of your
20 state phone documenting your GPS location.

21 A. Yes.

22 Q. And you were up near the area of origin in the fire
23 or what you ultimately determined to be the area of origin
24 of the fire; correct?

25 A. Correct.

26 Q. And just to remind us very briefly, can you go over

1 how you reached that area, how you determined that that was
2 an area of interest?

3 A. As I described last week, I was following the
4 evidence left on the ground, how the burn pattern works its
5 way down the hill. And I just followed it backwards back to
6 the site where everything kind of came together and pointed
7 back to a single location.

8 Q. Now, the next series of photographs we're going
9 through are some photographs that, as you termed them last
10 week, are micro and macro indicators that you observed.

11 Do you have the stack of photographs in front of
12 you?

13 A. I do.

14 Q. You should have photograph Exhibit Number 10 right
15 in front of you.

16 A. Yes, I do.

17 Q. Exhibit Number 10 is up on the board.

18 A. Yes, it is.

19 Q. Can you explain to us what we're looking at in
20 Exhibit Number 10 and specifically what these yellow and red
21 pin flags mean.

22 A. Yes. So what we're looking at is a -- I'm standing
23 with my back toward the tower and I'm facing west looking
24 down the hill. If you look in the kind of upper
25 left-corner, you see a little section of road. That is Camp
26 Creek Road just to kind orientate where we're at.

1 And so this photograph I took because this is
2 basically showing the advancing vector. So I'm looking in
3 the direction the fire traveled. So the fire would have
4 been traveling away from my standing position, if that makes
5 sense.

6 And may I approach the --

7 Q. Absolutely, absolutely.

8 A. So there's a lot of actual indicators here. I know
9 it looks very barren and there's a lot of material that had
10 turned away here from what I saw on the next ridge over on
11 the first day. For how much vegetation there should be here
12 there's a lot missing. So that to me is instantly kind of
13 an indicator that, you know, with it being so well burned
14 through here and only sparse little bits of vegetation still
15 left, that tells me that the fire burned with great
16 intensity through this area.

17 These yellow flags here -- as I indicated last
18 week, these yellow flags are indicative of a lateral
19 advancing fire. So I know we kind of talked about them.
20 I'll go over them again real quick.

21 We talked about that "V" pattern. On the bottom of
22 that "V" pattern we're going to have backing where it's
23 super low intensity at the head of the fire which is
24 represented by the red flags. Those are going to be really
25 well-burned indicators that the fire was moving with greater
26 intensity. And the lateral is as the fire kind of burns

1 outward using like radiant heat as its means of transition,
2 a little bit of convection.

3 So as I go through this if I lose anybody, please
4 just stop me a little bit. So what I'm looking at here is
5 in this particular flag here, for example, there is a whole
6 lot of information that I can see. I have a lot of sooting
7 underneath this rock here in this space where I don't have
8 it so much over here.

9 And if you can see the other side of this rock,
10 there is actual protection. So there is actually a little
11 bit of vegetation that didn't burn as cleanly as it did on
12 this side. So that tells us as the fire is going through
13 here, that rock provided protection and prevented some of
14 that vegetation from burning. You know, I know there's a
15 lot of different colored flags here, but the fire did burn
16 with an eddy effect.

17 So we're looking downhill. Over to my left-hand
18 side as I'm facing the screen, that would be the Feather
19 River drainage. And that was the main pathway for all the
20 winds that were blowing that day. So if you can kind of
21 consider the totality of the scene, we're sitting up on a
22 bit of a knoll or on a bridge. And as the winds blow around
23 us, it's creating these eddies into this little kind of spur
24 valley here. And so what that wind was doing was causing
25 fire to kind of burn in all directions. There is a blow to
26 it, an ebb and flow that just kind of would surge and back

1 off and surge and back off and surge and back off.

2 So we're going to have, you know, kind of all these
3 different indicators, but the totality of indicators tells
4 me that at one point we have the fire -- the fire is burning
5 down in this area. It slowed way down when it started to
6 get in this little canyon area where it started to become
7 less influenced by the wind and more influenced by the
8 topography. In other words, it wanted to burn uphill.

9 And so down here at the bottom we have all this
10 vegetation that did not burn even in the gully here where
11 it's actually backed slowly into it and didn't have the
12 intensity where it burned everywhere else. That actually
13 came up later when we were kind of reviewing some other
14 photographs.

15 I think we can -- can we go back to one of the
16 other images?

17 Q. Absolutely.

18 A. I will take these with me so I'm not bouncing back
19 and forth.

20 May I use the corner of your desk?

21 GRAND JURY SECRETARY: Yes.

22 THE WITNESS: So if we can go to Exhibit 5, in
23 Exhibit 5 -- I didn't have the opportunity to see this
24 photograph until several days after the fire. What we're
25 looking at right here in Exhibit 5 are those exact
26 indicators I was looking at. The fire had made a forward

1 run, slowed down, and was backing in this lower area right
2 through here (indicating). So that just validates that my
3 scientific processes are accurate.

4 And we're always looking for that. As a scientist
5 of fire, which I am, I'm always looking for that validation,
6 that check, that control to make sure that we're on the
7 right track. So there is good validation. And then it goes
8 back to --

9 BY MR. NOEL:

10 Q. So real quick before this -- and I'm not sure that
11 we hit on it. You talked a lot last week about "V"
12 patterns.

13 A. Yes.

14 Q. And on this fire -- on this photograph Number 5 we
15 see somewhat of a "V" pattern coming down the hill; correct?

16 A. We see several "V" patterns, yes. So our initial
17 "V" pattern -- and other photographs will also validate
18 this -- we have the fire kind of moving out towards us. If
19 we could put this in three dimensional perspective, this
20 fire is actually moving towards us generally speaking. But
21 there are little "V" patterns here where it started to
22 become terrain influenced and is now burning up here.

23 So we had this "V" pattern and a lateral fire -- a
24 little lateral fire here, here, and a backfire through here
25 and then, of course, the advancing vector over here on the
26 most southern side at the time that the picture was taken.

1 Q. Now, before we go back to Number 10, can you use
2 this photograph Number 5 to show us exactly the location
3 where you were taking the photograph in Number 10?

4 A. Regarding -- yes, I can. I can zoom in.

5 Q. Yeah. I think it's zoomed in as much as it will
6 but just in the general area.

7 A. I was standing -- so if you can see the tower
8 clearly, I would be kind of in this spot here (indicating).
9 I can draw it on with technology --

10 Q. Yep.

11 A. -- with a dot.

12 Q. Yep. There it goes.

13 A. I would have been in that photograph. I was
14 standing approximately right there (indicating).

15 Q. So just downhill from the subject tower 27/222 in
16 the advancing vector of the fire?

17 A. Yes.

18 Q. That would be on the west side. Okay.

19 A. Can I clear the screen?

20 Q. Yep, please.

21 And before we move on, just remind us from last
22 week can you define for us what you mean with the lateral
23 vector and the advancing vector.

24 A. Yes. When I describe using the term vector in
25 regard to the fire progression, vector just means that, you
26 know, we take a totality of all the -- I use that word

1 totality because we don't go by one specific thing. It's
2 the totality of all the indicators. Because a vector -- if
3 we say the exact path of the fire, we don't necessarily know
4 the exact path. We can estimate an approximation based on
5 all the factors. But when we talk about vector, we are
6 talking about, you know, the fire generally moving this
7 (indicating) direction.

8 If I were to say "Specifically the fire is moving
9 in this exact path," it's impossible. So when I talk about
10 the vector, we're talking about the advancing vector, the
11 direction the fire is generally moving in. We call it the
12 head of the fire. And the lateral vector is basically a
13 side-moving vector as it moves laterally. And, of course,
14 the backing, like I talked about, just as it's creeping with
15 low intensity in the opposite direction, typically the
16 opposite direction of the head of the fire.

17 Q. On that topic, you're talking about trying to chart
18 the path of the fire. What role in that determination do
19 photographs such as the one we just looked at People's
20 Number 5 or Exhibit Number 5 play?

21 A. Again, it validates our scientific process. If we
22 have it beforehand, before we actually have a chance to go
23 up and do my origin investigation, it gives me a launching
24 point. It's information. It helps me get to where I need
25 to go. That is taking into consideration with all the
26 evidence that I see on the ground, witness reports,

1 photographs, videos, that all plays into how I come to my
2 origin determination.

3 If I get the photographs after, again, it's just
4 validation either that my scientific process is correct, my
5 hypothesis is correct, or my hypothesis is wrong and my
6 process was wrong. And then we can go back and reevaluate
7 and figure out, you know, as more information comes about
8 what we need to do to get on track. It's a living,
9 breathing investigation. We don't set ourselves on a train
10 track and stay the course. We follow the evidence and we
11 adjust as necessary.

12 Q. So, for instance, in this case you saw the
13 photograph that is marked as Exhibit Number 1 from
14 Captain McKenzie before you ever went up the canyon;
15 correct?

16 A. Yes.

17 Q. And that helped you get a starting point?

18 A. It told me that his first view of the fire put it
19 up on the hill. I knew I needed access from the Camp Creek
20 Road. I couldn't see if --

21 May I refer to his photograph?

22 Q. Yes, please.

23 A. And I'm looking at Exhibit 1. This photograph --
24 when you consider seeing it on a five -- I have a
25 five-and-a-half, six-inch smart phone screen. It wasn't
26 great detail. And considering the location and the

1 elevation we were on, we were still looking uphill. As we
2 talked about last week when we were talking -- looking at
3 the angle of the tower, we're still from Highway 70 looking
4 uphill. So, yes, it puts me in a general location. This is
5 more advanced fire progress than our other photographs that
6 we have. But it did tell me that I need to get up Camp
7 Creek Road to start my investigation. That was a starting
8 point. It was a point to launch from.

9 Q. So and then the remainder of what we'll term
10 witness photographs, which are Exhibits 2 through 6 --

11 A. And I have those here.

12 Q. Yep. Six including the first photograph you took.
13 You didn't have access and you didn't see those until much
14 later after you had done your initial investigation up at
15 the tower 27/222; correct?

16 A. Correct.

17 Q. And how did you use those? How did those
18 photographs affect your investigation?

19 A. As I said, all those photographs, as they started
20 coming in to us little by little by little through our
21 investigative process and identifying witnesses, it was able
22 to validate what we had done and what we had seen up on the
23 hill and that the work that we had done, the scientific
24 process we followed was accurate.

25 And, you know, as an investigator, as a scientist,
26 you know, it's always good to see that validation. You

1 know, it's that end result that, you know, you have
2 accomplished the task that was put in front of you. And,
3 you know, it's good validation to see this kind of thing and
4 to know that, you know, it works basically in your control.
5 You know, it proves that your work was accurate.

6 Q. You read the science correctly?

7 A. I read the signs correctly.

8 THE REPORTER: "Science" or "signs"?

9 THE WITNESS: Signs.

10 THE REPORTER: Thank you.

11 THE WITNESS: That's what I heard.

12 MR. NOEL: I said science.

13 THE REPORTER: That's why I asked.

14 BY MR. NOEL:

15 Q. All right. Let's move on. And one thing just
16 foundational, your origin and cause investigation was
17 comprised of two days on the hill; correct?

18 A. Mostly. There was some information that was
19 gathered on our evidence collection day.

20 Q. Okay. So you went up there the first day
21 November 8th and then you testified that you had to leave
22 because of the fire conditions?

23 A. Yes.

24 Q. The danger. And then you came back two days later
25 on the 10th or --

26 A. On Saturday, the 10th.

1 Q. The photographs that were shown, as we are going
2 through them you could identify as best as possible whether
3 this was a day one November 8th or day two November 10th
4 photograph?

5 A. Yes, I should be able to.

6 Q. All right. Number 11. You have that in front of
7 you?

8 A. I do.

9 Q. Tell us what we're looking at in Number 11.

10 A. So on -- and that's the same photograph that's on
11 the screen. The -- I'm standing on kind of a mid slope
12 trail. I don't know if we identified that in the previous
13 photographs. There's a little -- I believe it's a
14 maintenance trail used by either PG&E or it might just be an
15 animal trail. It's kind of a mid slope and it runs right
16 along the under slope there. So I'm standing on the trail,
17 and I'm still kind of -- I'm standing roughly southwest of
18 the tower for orientation, and I'm looking east.

19 And what we're looking at is this was a quick shot
20 that I took on the first day showing not only the vegetation
21 that was around but also there's a bunch of debris on the
22 ground. The debris includes old paint cans, fallen logs,
23 and then also here (indicating) there is a piece of ceramic
24 insulator that is on the ground. That is marked with a
25 green flag. Green was my industry standard for items of
26 interest.

1 In this photograph you can see that obviously
2 there's still a bunch of unburned fuel below us. It's still
3 smokey. That is our concern. This is very close and near
4 to where we were working. If this were to re-ignite and
5 re-burn, it would have been difficult escaping for all of
6 us.

7 You see it did burn partially again in a backing
8 vector super low intensity. You can see underneath all the
9 fuels here in the photograph. This is all ash underneath
10 all of the standing vegetation. So it burned really, really
11 low intensity. It was backing not only against the wind but
12 against a slope. The fuel almost had no influence on the
13 fire behavior here.

14 Q. So this photograph is taken from below and upwind
15 of the area of origin?

16 A. Below and standing downwind. The wind would have
17 been at my face if I'm facing east.

18 Q. Okay. But the area that you're photographing would
19 have been somewhat upwind of the area of origin?

20 A. Upwind wouldn't be a good way to describe it. The
21 way I would describe it is almost directly south and
22 downhill. It would be lateral to the tower.

23 Q. Okay.

24 A. So --

25 Q. How about photograph Number 12? Exhibit Number 12?

26 A. I have it here.

1 Q. Explain to us when this was taken, where this is,
2 and what we're looking at.

3 A. This one was taken on Saturday, the 10th. It was
4 when we returned and placed additional flags. So this photo
5 shows a lot of evidence on the ground. Number one, it shows
6 the tower. And just to be clear, the photo on the screen is
7 the same as the photograph I have in my hand.

8 It shows the tower and it shows a lot of the
9 backing indicators. This vegetative material here, this
10 dead and downed stuff you can see it's all cut at the base.
11 This is as a result of what I would assume would be the
12 PG&E's Vegetation Management Project. But I would again be
13 assuming by saying that.

14 But there's a lot of dead and downed material.
15 This stuff is dry. It had been baking for Lord knows how
16 long. It's bleached in the sun. It's dry. There is no
17 water content in there whatsoever. And yet it survived.
18 That tells me that the fire even though we're uphill from
19 what we determined to be one of our origins, the fire is
20 still just really low intensity, extremely low intensity,
21 and backing in this direction.

22 And there's grass on the ground that's an unscathed
23 route through here and up here (indicating). You see
24 there's still standing grasses up here. There was the fire
25 just really slowly backing here. That tells me the fire did
26 not come from the previous ridge or the previous valley. It

1 was -- the fire started beyond this point.

2 And then if we go back to photograph -- I'm sorry,
3 Exhibit 10, we have the opposite. You know, where it's a --
4 this is just really on the other side of the tower. So a
5 lot of evidence tells me that the fire -- well, go back to
6 12. The fire was started somewhere between these last three
7 photographs. It clearly starts somewhere in that
8 (indicating) area.

9 Again, we have more backing evidence here. We
10 didn't go much further past this because beyond this
11 photograph toward the east it's just the same thing for
12 quite a while. All the way down the hill on the other side
13 it's just more and more backing. We didn't feel the need to
14 just continue putting flags just like we didn't move
15 forward, you know, all the way down with red flags. It was
16 enough. We can see -- the flags are a tool that we use to
17 help us identify and put together an overall view of how the
18 fire progressed.

19 Q. So this photograph is taken from a little bit
20 upslope and a little bit upwind of where you ultimately
21 determined the fire started?

22 A. Yes.

23 Q. Can you kind of clarify for us a little bit more of
24 the role that slope and topography play in the behavior of
25 fire.

26 A. Yes. So there's three major influences on fire

1 behavior. That is the weather, topography, and fuel. Those
2 are the three dominating forces on how a wildland fire is
3 going to move. And they correlate with each other. If you
4 can put all three of them in a triangle, the fire is going
5 to want to waver to whichever is going to be the most
6 dominating influence at the time.

7 Here we have -- and typically on a normally calm
8 day topography will almost always trump any other influence
9 almost always. It -- usually topography issues are usually
10 in line with fuels. And a lot of times topography is in
11 line with the weather as well because we have what is called
12 upslope winds. As valley floors heat up, the wind wants to
13 expand and it pushes wind upslope. So typically they are
14 all in alignment.

15 In this case, however, it was not in alignment.
16 The fuels -- you know, the fuels were there. The fuels were
17 ready to burn. There were well-cured, receptive fuel beds
18 on the side. It would have burned even with the radiant
19 heat there was enough wind that day. The winds were so
20 intense that it was overcoming every other influence which,
21 in my career, this doesn't happen very often. It's -- it's
22 not -- it's not a common occurrence where it's this extreme.

23 And if you look at the overall progression of the
24 fire, which at some point we're going to get to, the fire
25 just -- it stuck with the wind and it went over the hill and
26 down and just went with the wind the whole way eventually

1 running into changes of the weather which allowed it to
2 be -- which allowed it to become -- be influenced by terrain
3 and other factors.

4 Q. You said you testified last week that when you
5 first arrived and got out, I believe, to meet with
6 Captain McKenzie, that the -- the wind was absolutely
7 howling to the point that you were leaning into it; correct?

8 A. Yes.

9 Q. How much time have you spent in the Feather River
10 Canyon?

11 A. I was assigned to Jarbo Gap Station for about a
12 year.

13 Q. Where is Jarbo Gap Station in relation to the area
14 that we're looking at in the area of tower 27/222?

15 A. The fire station is about 20 minutes to the west of
16 this location. It's within the direct vicinity.

17 Q. Have you heard the term "the Jarbo winds"?

18 A. Yes.

19 Q. What is the Jarbo winds in your experience?

20 A. Jarbo winds are a wind influence that occurs
21 usually early morning hours to about early to late
22 afternoon. It's a localized wind. It stems from the Great
23 Basin heating up in the early morning hours. So two hours
24 ahead of our sunrise you will have these expansions of air
25 mass in the Great Basin. As that air expands, it needs to
26 go somewhere. And the lowest point for it to pour over into

1 California is at the Feather River Canyon.

2 And so all those winds as they are expanding --
3 again, as they expand, they are getting hotter and they are
4 getting -- their relative humidity is going down. Because
5 as you expand a space and you only have one gram of water,
6 you have this bigger volume still in one gram of water. So
7 the relative humidity is going to go down based on volume.

8 So as this air is pouring over in the Feather River
9 Canyon, it's funneled and pressurized which is going to
10 cause it to heat up more. As it's pressurized, it dries out
11 more because the temperature is going up and winds increase
12 higher. And that happens almost every single day. As long
13 as the Great Basin has water, we're going to have Jarbo
14 winds.

15 Q. How were the winds on the morning of November 8th
16 when you arrived into that area as compared to previous
17 experience?

18 A. Typically, the winds in the area range anywhere
19 between 15 to 20 miles an hour. That's probably being on
20 the high side, 15 kind of being a normal morning. These
21 winds were -- when I was there, they were -- as I said, they
22 were pushing the tops of the trees over. When I say pushing
23 them over, they weren't toppling the trees, but the tops of
24 the trees were leaning over.

25 In our fire behavior science we understand that
26 means that the winds are above 30 miles an hour. That was

1 my visual reference. I didn't take the time to get any
2 weather statistics. Not many people were -- that day there
3 was a lot going on. Personal safety was the utmost
4 importance. But we do know that that was raw data
5 available. And I'd have to reference that in specifics.
6 But we do know that throughout the day we had winds anywhere
7 between 40 miles an hour to as much as 70 miles an hour in
8 the area.

9 Q. I'm talking just your personal experience having
10 been assigned to the Jarbo station, having been in these
11 winds before and the Jarbo winds before, when you got up
12 there that morning and you said you got out of your truck to
13 make contact with Captain McKenzie and the wind was howling
14 so hard that you were literally leaning against it as you
15 walked up to Captain McKenzie's truck, how was that your own
16 personal experience compared to previous days, your previous
17 time spent in the area?

18 A. Unusual, unusual to be that strong. However,
19 not -- not unusually out of character for the Jarbo Gap
20 area. These winds happen and they happen on a regular
21 basis. It's not every day they happen, but it happens
22 several times a year. It's a known event that happens. So
23 it's not a usual encounter to jump out of your truck and to
24 be toppled over. It's unusual. However, for the Jarbo Gap
25 area in the Feather River Canyon it didn't strike me as
26 terribly odd.

1 Q. You know a lot about meteorology; is that correct?

2 A. I know enough for my job.

3 Q. Well, that's where I'm going to is meteorology
4 important to firefighters in general but even more so to a
5 fire captain specialist and especially a fire prevention
6 officer like yourself?

7 A. Yes. And knowing the weather is one of the
8 fundamental skills of my job. I mean, I need to know what
9 the weather is doing, what it's going to be doing. And we
10 talked about this last week. The meteorology and knowing
11 what the weather has done is going to fall into my origin
12 investigation. Knowing the weather, knowing what the
13 weather is going to do, knowing what the weather has done,
14 and what it typically does with the relative humidity, how
15 much precipitation we've had in the last 30 days, lightening
16 in the last several weeks -- all that comes into play
17 because by knowing all of this stuff, number one, it
18 excludes certain causes like lightening.

19 There was no lightening in this area for several
20 weeks. Actually, for months before. But I looked back as
21 far as two weeks, and there was no lightening. But more so,
22 knowing that -- you know, knowing the relative humidity,
23 what type of weather patterns come through, what is expected
24 humidity-wise kind of helps me determine, you know, should
25 this vegetation burn or not burn, did we get rain, and that
26 stuff. Was it soaking wet and that's why it didn't burn?

1 That was changing my perspective on how these
2 indicators were set. It's part of the totality with the
3 full picture of everything. The meteorology is part of that
4 greater examination of the scene.

5 Q. Are you familiar with the term "red flag day"?

6 A. I am.

7 Q. What does "red flag day" mean to you?

8 A. Red flag means the National Weather Service or
9 another similar type agency has determined that conditions
10 exist that are going to make it very likely that a fire,
11 should it start, will progress into a major incident.

12 Q. So it's a very important thing for you as a fire
13 prevention specialist to monitor things like red flag days?

14 A. I check it several times a day.

15 Q. Was November 8, 2018, a red flag day?

16 A. Yes, it was. And it had been identified for
17 several days.

18 Q. Now, very quickly before we move on, the tower that
19 is in the background of that photograph number 12, which
20 tower is that?

21 A. That is the Caribou-Palermo 27/222 tower.

22 Q. And the blue flags -- remind us again what those
23 mean.

24 A. Backing indications.

25 Q. Okay. Let's move on to Number 13. Tell us what
26 we're looking at when it was taken and where it was taken

1 from.

2 A. Okay. So this is a very similar photograph that we
3 saw in 12. I'm -- roughly without measuring I'd say 15
4 to -- about 15 feet south of my previous location. Again,
5 just showing the vegetation in the area, the backing
6 indicators. I do have a couple of green flags in here. And
7 we will discuss those coming up, I imagine.

8 There are some items of interest in that area. I
9 did identify this as a specific origin area. Again, we are
10 in the general origin area. This whole investigation occurs
11 within, if not the whole, specific origin area. Let me
12 rephrase that. General origin area.

13 Within the specific origin area here there is two
14 flags. If you look at the vegetation around here, there
15 isn't a ton of growth here although that's not unusual under
16 transmission lines.

17 This is -- I would not typically see this much
18 vegetation this close to a specific origin area in the
19 aftermath of a fire. That just tells me this wind was
20 really howling in here and that it was really pushing this
21 down. Not necessarily unusual for this area but this is a
22 specific area with very specific weather conditions that
23 allowed the fire to progress this way.

24 So, you know, we've got all this backing here, you
25 know, very, very slow backing. So high level of confidence
26 that is a specific origin area.

1 Q. And just for the record, the tower structure that
2 is shown here?

3 A. Caribou-Palermo 27/222.

4 Q. Let me make sure we have a complete record. You
5 are talking the specific origin area around these two green
6 flags that are displayed in the photograph?

7 A. Yeah. And that would be, just for reference,
8 directly east of the tower.

9 Q. And we have blue flags down in the lower middle
10 right of the photograph.

11 A. Yes, yeah. And those blue flags -- I mean, if you
12 look -- I'm going to take your position here. We have a lot
13 of flags strewn throughout. And I talked last week about,
14 you know, as the fire is coming towards you and it starts to
15 burn one side of the grass, it makes it collapse and point
16 towards the fire. We have a bunch of that down here. And
17 that only occurs when the fire is at a specific intensity
18 that allows it to happen.

19 And so what we end up with is a perfect crescent
20 shape with all those type indicators right through here
21 (indicating). And they all point right back up to that
22 point which is where we found some items of interest.

23 Q. Photograph marked as Exhibit Number 14.

24 A. I have it.

25 Q. Tell us what we're looking at and where this was
26 taken.

1 A. So this was taken on Saturday. This is what we
2 just spoke of. Within this area we can see not only the
3 stem -- and this is the same picture on the screen. We do
4 see kind of some better examples of stem fall kind of in
5 this area all kind of pointing back in this direction.
6 Granted, they don't all point in the exact same direction,
7 but again we have to take into account the totality of all
8 the indicators. You know, you take them all together and
9 form a conclusion that way.

10 And then also within it are the items I marked.
11 Essentially, items one and two are pieces of metal that
12 appeared to be metal wire. They were located within those
13 SOAs. This particular --

14 Q. And just to define it because I know it's going to
15 come up time and again, SOA is specific origin area?

16 A. Yes, it is.

17 Q. Correct?

18 All right. So we started off in a big general
19 origin area, and now we're narrowing that down to small
20 specific areas?

21 A. Yes. And that is how the whole investigation --
22 origin investigation works. We start big and we just keep
23 working our way smaller and smaller and smaller until we get
24 to a point where we can't get any smaller.

25 Q. And that's how you figure out where the fire
26 started?

1 A. That is how we figure out where the fire started.

2 Q. All right. Let's move on to Number 15. First of
3 all, what is the tower -- there is a tower in the foreground
4 or in the background.

5 A. So the tower in the background -- I would have to
6 look up to see the exact tower number. So I don't remember
7 it offhand. But this tower right here that we see in the
8 left-hand side of the photograph, that is the same one I
9 have in my hand as Caribou-Palermo 27/222.

10 In this photograph this is just above the SOA one,
11 this first specific origin area. This again just shows a
12 couple things from a bunch of vegetation, unburned grasses.
13 It just kind of shows I think -- so I took this photograph
14 because this is probably the best representation of the
15 vegetation in our GOA. It is pretty much unscathed. There
16 is almost no burning indicators around it. There it looks
17 like it hadn't burned at all, which again tells me super low
18 intensity at this point.

19 Q. So this is just a few feet from one of the
20 locations you determined that the Camp Fire started?

21 A. Yes.

22 Q. And it's relatively unburned?

23 A. Yeah.

24 Q. But then a few feet -- as you're looking at this
25 photograph off to the left is where all the red flags start;
26 correct?

1 A. Correct.

2 Q. Let's move on to 16. And what are we looking at
3 here? When was it taken?

4 A. So we're standing on that sloped trail. Excuse me.
5 And what we're looking at is I'm facing -- I took this
6 photograph. We are directory below the Caribou-Palermo
7 27/222 tower, and we are looking west.

8 Within these photographs we can see that it has
9 some blue flags, again showing the fire was backing in this
10 direction. Again, there is still a lot of unburned material
11 in the area. There is a little bit of, you know, downed
12 sticks and everything here using what little burn indicators
13 were left here. Because it didn't burn really very much
14 through them. You've got to remember we're on the side.
15 It's hard to tell, but this is actually really steep right
16 here.

17 So not a lot -- I believe this area here didn't
18 have a lot of growth to it. In fact, if you look there's
19 almost no stubs left in the ground where everyone else is.
20 But what we have here is material blown into the area by a
21 previous wind event. It may a wind event. I don't know.
22 But there's some vegetation here, but it didn't really burn
23 very well through here. We had a few vines where it's
24 backing and kind of came downhill towards us if that makes
25 sense.

26 And then you see there is a whole lot of green

1 flags. All these green flags in here are indicating that
2 there is something interesting here. You know what's
3 interesting and what we found? Almost every one of these
4 green flags except for this one and a couple others, most of
5 these green flags are referencing broken pieces of ceramic
6 insulator.

7 When we arrived at scene the first day, we did
8 notice that this was -- you know, these lighter colored
9 green flags we put on the first day, there was all of this
10 ceramic material. But there was also a lot of garbage. And
11 we couldn't -- initially, we didn't really understand why
12 there was so much garbage. We thought maybe it was just
13 from previous work done.

14 As we progressed in our investigation, we came to
15 realize that all of this insulator material came from the
16 broken insulator string which is pretty incredible because
17 the amount of wind it would take to move that heavy material
18 plus a slope influence brought all of that material way over
19 here when the tower is up here on the hill. Again, just an
20 indication of what those Jarbo winds are like.

21 Q. Now we're on to Exhibit Number 17. And first,
22 let's identify the tower whose legs we see.

23 A. Yep. The tower in the foreground is the
24 Caribou-Palermo 27/222. This photograph was taken nearly in
25 the same position as the previous photograph. I may be a
26 couple steps towards the west looking almost directly north,

1 relatively north at the tower from the walking trail.

2 Q. So you're looking up at the tower?

3 A. I'm looking up at the tower, yeah. And there's
4 just kind of a close-up showing those indicators again and
5 how it really burned low intensity and got really small.
6 There's fine material in here that didn't burn. A couple
7 stubs but not very much, not a lot of vegetation in here.
8 Some really good indicators.

9 Nonetheless, we had some sitting over here that
10 showed the fire was backing over here and a little
11 protection back here. Really good protection right here
12 (indicating). It didn't really -- just the ground, the
13 grass, and litter but really, really low intensity.

14 Q. So over in the background up here in the left-hand
15 corner, is that a red flag?

16 A. Yes, it is.

17 Q. So in this area is the heavy intensity backing
18 fire, but just up the hill right there we have high
19 intensity advancing fire. And there is a reason for that.
20 What is that?

21 A. There is actually another origin right here
22 (indicating). So just to the south of Caribou-Palermo
23 27/222 we identified a second origin. The fire we had seen
24 remember back in here (indicating) and then we had little
25 bits. And we didn't mark it with a flag because there was
26 only maybe one or two indicators. We did have some

1 advancing through here where it burned a little cleaner, but
2 there is almost nothing left where over here we still have
3 little bits here. So we did identify a third origin -- or
4 excuse me, a second origin just to the south of the
5 Caribou-Palermo 27/222 tower.

6 Q. Exhibit Number 18 we have a photograph. Do you
7 have that?

8 A. I do.

9 Q. What is Exhibit Number 18 depicting?

10 A. This is a close-up and is the same on the screen.
11 This is just a close-up examination of the broken ceramic
12 insulator material that we found in the area we refer to as
13 a ceramic debris field or the insulator debris field.

14 Q. What in this photograph is ceramic debris?

15 A. These pieces of material here where the concentric
16 circular rings are part of the insulators. And there's a
17 small piece right there (indicating).

18 Q. Why were these items significant?

19 A. These items show -- well, these items didn't belong
20 there. These items belonged, I believe, to the insulator
21 string that was hanging inverted from the conductor wire
22 that rotated the phases on the transposition tower. Later I
23 know we are going to talk about that specific insulator
24 string. And you can see there's -- several pieces of that
25 are broken off. In fact, I think in one of our first
26 photographs we can actually see it fairly well.

1 Bear with me. Our best photograph so far we've
2 gotten to is Exhibit 8. And can you zoom in on that.

3 You can see the white kind of jagged edges of the
4 insulator string. As it came down, I believe it -- let me
5 rephrase that. As to came down, it came down with force and
6 the weight of gravity behind it. And I believe four -- I'd
7 have to re-examine a closer picture. Four of those
8 insulator bells shattered and the resulting debris field
9 came from that insulator string as the wind pushed it in
10 that direction.

11 There is another significance to that if we can go
12 back to.

13 Q. Eighteen?

14 A. No. I think I'd rather go to 16. I know it's hard
15 to put together a 360-degree view of this, but a minute ago
16 we saw in 18 -- we had a photograph -- not 18. I apologize.
17 It's 17. So 17 and 16 --

18 If you can kind of go back to 16, imagine as I'm
19 sweeping across here and put them together. There's a
20 significant distance where these portions of insulator
21 traveled through the air to land in their final resting
22 place where we found them.

23 The other significant point is they are in
24 alignment. Those pieces of insulator string are in direct
25 alignment with the slope direction to our two GOAs we have
26 identified so far. So that tells me that all the stuff --

1 basically as it came down everything fell in a separate
2 line.

3 As you can imagine, you know, when you have water
4 on your hands and when you sling it down, it's going to go
5 out in a straight line. It's going to follow an arcing
6 path. That's what happened here. As the stuff came down,
7 the influence of wind and its velocity created a straight
8 line that all the stuff came down in.

9 Q. All right. The photograph marked as Number 19,
10 let's start off. Let's identify the tower structures that
11 are in the background to the photograph.

12 A. So this tower structure is closest to us that we
13 can see in the photograph is Caribou-Palermo 27/222. In the
14 foreground photograph we see again a bunch of different
15 indicator flags, vegetation. Again, great indicators.

16 A couple more items of interest here. Those ended
17 up being, we determined, partially buried portions of wire
18 or metal wire. So it may have been there a while. So they
19 ended up being not significant. However, we did document
20 and identify them anyway.

21 But another fascinating portion is over here on
22 the -- closest to the right side of the photograph, you
23 know, we can see where we previously identified the second
24 specific origin area right in this (indicating) area. Here
25 we have a third specific origin area. Again, we have what
26 we anticipate should have been -- you know, this should have

1 all burned clean. But we had a separate origin that had
2 backing and then again moving uphill with the wind, with the
3 topography influenced the fire. We have our advancing
4 vector going up the hill. So one, two, and three separate
5 specific origin areas.

6 Q. So we have talked a lot today about blue flags and
7 we have talked a lot about red flags. Remind us what the
8 yellow flags mean.

9 A. The yellow flags are the natural vector of the
10 fire. So as our fire is burning uphill, the fire is also
11 making an advancement to the east just by following the
12 fuels partially influenced by the wind. But we are
13 protected back here (indicating).

14 It's a fascinating phenomenon. When you're walking
15 around this tower, when you're on the backside of the tower
16 here towards the east, you feel wind, but it's not a
17 significant wind. And as you come around the trail and you
18 hit basically just south of the tower, you get pushed by the
19 wind. And as you come back around over here, there is no
20 wind whatsoever. It's really amazing how this topographic
21 structure of this hill will influence the wind's velocity.

22 So the fire is actually making an uphill
23 advancement following the topography and the fuel and
24 following lateral. And that is what the yellow flags are
25 identifying.

26 And then once it gets up to the top of the hill, it

1 actually starts making another movement to the west and is
2 influenced by the wind again once it gets exposed to that
3 wind. And that has been validated in our photographs that
4 we received from our witnesses in Exhibit 5.

5 Q. Moving on to a photograph marked as Exhibit
6 Number 20.

7 A. So this is just a close-up of that backing
8 indicator. It was in the previous photograph at the bottom
9 left-hand corner.

10 I have Exhibit 20 here, and it's the same
11 photograph that is on the screen.

12 This is just -- again, this is -- all of this
13 material is super dry and it just barely burned, super low
14 intensity. And it's just -- this was a really good
15 indicator that the fire came in here. A little bit of that
16 is kind of a great example because we actually have some
17 conflicting indicators here.

18 So this branch tells me the fire is moving in this
19 direction, but yet you have sooting on this side of the
20 rock. But what I have to consider is this fuel was an
21 influence. Everything is influenced by something else. The
22 rock influences the fire. The material influences the fire,
23 the topography. Everything kind of comes into play.

24 And so we have just conflicting information. This
25 would tell me the fire came from this direction, but that
26 actually is just soot from this piece of tree burning. So

1 there's a lot to consider, but at the end of the day we take
2 a totality. This one indicator is contradictory to
3 everything else in the area.

4 Q. Number 21 starts off by identifying the tower
5 structure there in the background.

6 A. Again, this is Caribou-Palermo 27/222.

7 Q. That is the structure on the right?

8 A. Yes, it is.

9 Q. And the structure on the left is a separate line;
10 correct?

11 A. Yes, it is. So we're kind of uphill from our
12 previous location, and we are rotating our position to the
13 northwest. And this is me just capturing and documenting
14 all the indicator flags.

15 And again, kind of continuing on with our previous
16 photograph here, here is our -- at the southwest corner of
17 the Caribou-Palermo 27/222 would be our third specific
18 origin area right in here. And then as it advances a
19 proceeding advancing vector coming across the top influenced
20 with a lateral vector working its way down the hill. A
21 little greater intensity. That is why it's not a backing
22 vector. It's a lateral vector based on intensity.

23 Q. And the photograph of Exhibit Number 22.

24 A. This is a close-up of some of our previous flags we
25 just saw. Orientation is not great in this photograph.

26 It's actually a little bit skewed, but the terrain is -- you

1 saw the terrain. It's difficult to stand up straight. He
2 was leaning on rocks trying to hold our position from
3 sliding down the hill. This was just, you know, a real
4 intense fire coming through here, really just jet black
5 staining the rocks through here.

6 This side of this stick was burned. The other side
7 was not. More sooting up here. And right over here we have
8 a lateral vector because we can see the fire did not make
9 its way around here. It's actually working its way kind of
10 diagonal of the photograph.

11 Q. A photograph marked as Exhibit Number 23.

12 A. Again, this is from -- on the left-hand side we're
13 looking at the Caribou-Palermo 27/222. This is that
14 advancing vector at the top of the knob as it started to
15 make its way eventually as it was running towards Paradise.

16 Q. All right. Now, a photograph marked as Exhibit
17 Number 24.

18 A. This was taken on the second day we were up there
19 which would be Saturday, the 10th. I was -- I had set
20 spikes in the ground to take --

21 Yes, Sir.

22 GRAND JUROR NUMBER FOUR: We have different exhibit
23 numbers.

24 GRAND JUROR NUMBER FIFTEEN: Ours is 25.

25 GRAND JUROR NUMBER FOUR: We show that as 25.

26 GRAND JUROR NUMBER THREE: I think our page is 23

1 and the exhibit is 24.

2 MR. NOEL: Twenty-four.

3 GRAND JUROR NUMBER ELEVEN: It's the way the
4 PointPower is paginated.

5 MR. NOEL: Oh, you're looking at the page number.
6 For some reason when we were getting ready last week to
7 print these for you, it dropped -- the exhibit markers up on
8 the top right-hand corner disappeared. And so you're
9 looking at the page number. The page number and the exhibit
10 markers disappeared. I have no idea. I had to go back over
11 the weekend and redo it. Thank you for reminding me of
12 that.

13 BY MR. NOEL:

14 Q. So back to Exhibit Number 24.

15 A. Confirm it's 24.

16 Q. Confirm it's 24.

17 A. Okay. So in this photograph we're looking at one
18 of the wire segments we found in SOA one. This is just me
19 documenting as I am measuring out -- one of our ways we
20 measure out as a scientific process is we actually sink
21 steel spikes into the ground below grade that we can find
22 with a metal detector in the future. Basically, it's
23 setting reference points so that if we come back in five
24 years, we can basically recreate a scene if we need to.

25 So what I do is set the spikes in the ground and
26 from those spikes I measure our points of interest with

1 different indicators. This is kind of the old-school way of
2 doing it. There's much higher technology that we use, and
3 we'll get into that as well. But we always follow our same
4 process. And part of that process is setting spikes and
5 measuring everything from those spikes. So if we need to go
6 back and reference it in the future and satellites aren't in
7 the sky, anyway we can still do it.

8 Q. And this is the specific or general area number
9 one?

10 A. Number one, yes.

11 Q. Exhibit Number 25.

12 A. Exhibit 25. This confirms 25 and the photograph is
13 25. Nope. Yeah, we can rotate it. That works. This is a
14 wire fragment that we found using a metal detector within
15 SOA two. Originally, we did not see this. It came up with
16 a metal detector. And that is how we are able to identify
17 it. And this metal fragment was what I determined to be the
18 very center of SOA number two. And SOA number two had some
19 very small indicators within it. We were able to get it
20 done in an area about -- well, about five inches in
21 diameter.

22 This is still very, very small. This piece of
23 metal is about half a centimeter. With all the debris there
24 we didn't initially find it. I wear glasses. I didn't
25 exactly see it the first day. We were able to identify this
26 with a metal detector. And you can see it's a fantastic

1 photograph here of this rock. It doesn't matter what size
2 the rock. It's always a good indicator because physics
3 still affects it the same way.

4 So we still have a little sooting over here. Same
5 thing with over here with sooting over here. Good sooting
6 right here. The fire -- this one is really great. The fire
7 started here or a fire started here and worked its way out.

8 Q. Number 26. You have that photograph?

9 A. Number 26, yep.

10 Q. And let's identify the tower structure in the
11 photograph.

12 A. Again, Caribou-Palermo 27/222.

13 Q. And what are we looking at in this photograph?

14 A. So my back -- I'm facing with my face to the east.
15 I'm looking kind of uphill at the west face of the
16 Caribou-Palermo 27/222 tower. This photograph is -- excuse
17 me. This is SOA three right in this area right here
18 (indicating). I stand correct. Sorry. It's over here
19 (indicating). Right over here. So SOA two is kind of the
20 bottom right-hand corner of the photograph.

21 This wasn't the best SOA we've had; specific origin
22 area. The evidence is there on the outer edges. We did not
23 find anything specific in the area with metal detectors
24 otherwise. However, with our metal detectors there has to
25 be a certain degree of mass to that material in order for it
26 to be picked up. It doesn't mean there wasn't anything

1 there, but we weren't able to find it. I believe the amount
2 of material that would have fallen to the ground potentially
3 may be small enough we wouldn't have been able to find it.

4 Q. So now you have been wandering around investigating
5 behind or under tower 27/222. You have identified three
6 specific origin areas. You have swept this with a metal
7 detector and you found wire. What comes next?

8 A. Well, we had developed a hypothesis. We had
9 developed a plan of action. What is the next steps? We
10 know where the fire started. Now we have to figure out how
11 did the fire start. So now we finish our -- basically our
12 cause. We have some evidence. We have some ideas. We have
13 some hypotheses we are working on. But we need to go
14 through and do a cause investigation now, which is much more
15 detailed. You have to really -- you have to try and
16 disprove yourself. You have your hypothesis and you have to
17 go through and try -- you know, basically poke holes in your
18 hypothesis and try and break what you found to be truly
19 accurate.

20 And that is what we started doing. We identified
21 items we needed to look at more closely. Certain things we
22 knew. You know. In part of our cause determination we had
23 to eliminate things right off the bat. So on Tuesday I
24 spoke about my entry into the G0A, how to get the bulldozer
25 to kind of clear the roads. I was able to identify that
26 first day that there was no evidence of foot traffic, no

1 evidence of vehicle traffic, dirt bikes, anything like that.
2 One of our witnesses that I think we'll be talking to here
3 in the near future told me -- we'll get to that later.

4 There is no evidence that anybody was up there. So
5 it being human caused could be almost completely eliminated.
6 So camping, shooting, debris burning, a barbecue escape; all
7 these things I was able to eliminate.

8 There is a railroad in the area. And we have all
9 heard stories of trains causing fires. However, this
10 train -- the nearest location to the tower is about 1200
11 feet horizontal distance and about 900 feet vertical
12 distance away from the tower.

13 In my experience -- and I worked in Devore in
14 Southern California where there's six train lines, one
15 running through the backyard of the fire station. We dealt
16 with train fires on a regular basis.

17 You know, I work in Butte County. We have lots of
18 trains here, too. In my experience with all the train
19 fires, this is not a location that would be a likely train
20 fire started. The distance is so far away, plus in order
21 for that to happen the winds are out of alignment. Even if
22 in the unlikely event that this was a train-started fire,
23 the winds are going 90 degrees in the wrong direction. If a
24 train did start a fire, it would have been down in the
25 Feather River Canyon close to the waters's edge and not up
26 the hill. So we were able to eliminate trains rights off

1 the bat.

2 Q. So let me just make sure that we're on the right
3 track. When you say 1200 feet horizontal and then you said
4 800 feet vertical or 900 --

5 A. Eight or 900 feet.

6 Q. We're talking about this tower is up on the canyon
7 wall and the train tracks are down at the river.

8 A. At the water's edge, yep.

9 Q. So we're way up above.

10 What about vehicles? Where is the road in
11 reference to this tower and the specific origin area?

12 A. A very steep and sandy climb away from the tower.
13 There is a road. And I told you that is how we were able to
14 get in. But there was trees across the road, a washout in
15 the road. There was debris in the road. Not just debris
16 from the fire but years and years of slides and earth moving
17 from erosion had made that road impassable.

18 Could you walk in? Absolutely. But the amount of
19 time it would take for somebody to run out of there, they
20 probably would have perished at the rate this fire was
21 moving. You're talking -- I think it's about 2.2 miles.
22 I'd have to look, but it's quite a distance from the town of
23 Pulga in a very unfriendly environment with a fire going,
24 earth in the way, unable to drive. Unlikely somebody
25 walking. I think human cause can be eliminated.

26 Q. And what is the distance between the specific

1 origin areas under the tower and Camp Creek Road?

2 A. It varies. In some points it's a horizontal
3 distance. It's only about 120 feet, which isn't very far.
4 But if you take into consideration that that specific point
5 is almost on the cliff and then other points. It's almost a
6 quarter mile depending on how it loops around and the
7 distance to get there.

8 Q. So the tower is up above the roadway?

9 A. Yes. And if you consider, you know, any mountain
10 road is windy. It usually follows the terrain. There's
11 kind of a spur ridge coming off the main Feather River
12 Canyon ridge. Soon the road basically makes this big
13 lapping turn almost like a horseshoe around where this tower
14 is located. So to give a specific -- I mean, it's far
15 enough away from the road that it's not an easy access.

16 Q. So as you're switching from an origin investigation
17 to a cause investigation, did you become aware of
18 information from PG&E?

19 A. Yes, I did. I did. The first day we were up
20 there, obviously we had no cellphone communication, no
21 Internet, anything like that. But I don't remember if
22 specifically that evening -- actually, it wasn't that
23 evening. The following day we couldn't make access so we
24 went back to our office and tried to do as much research as
25 we can. And we became aware that Pacific Gas & Electric had
26 made a filing with the California Public Utilities

1 Commission in the public filing. I assume that's what
2 you're getting at.

3 Q. Yes.

4 A. In a public filing they had notified -- as a
5 requirement of their company under the regulations of the
6 California Public Utility Commission they had made a public
7 filing that they had a loss of service at 6:15 in the
8 morning on the Caribou-Palermo line in the -- directly at
9 the Caribou-Palermo 27/222 which they indicated was near the
10 area of the Camp Fire.

11 Q. So when you get back up there and you start your
12 cause investigation, where is the first place you looked?

13 A. We looked up.

14 Q. Oh.

15 A. We looked up. We looked up at the tower.

16 Q. And now direct your attention to Exhibit Number 27.
17 What does the Exhibit Number 27 show?

18 A. So this is a picture provided to me, Cal Fire, by
19 Pacific Gas & Electric.

20 If I may kind of talk about evidence collection
21 and --

22 Q. Well, let's describe what the photograph is first
23 and then we'll go back to that.

24 A. Okay. So this photograph is our insulator string.
25 At the very bottom of the insulator string -- actually, it
26 should be the top of the insulator string, but it's

1 inverted. So this is the end of the support hook -- what
2 was left of the support hook that held it to the tower.

3 Q. So when was this photograph taken?

4 A. I would have to refer to my MedData, but I believe
5 this was taken on the 14th of November.

6 Q. Did you take this photograph?

7 A. No, I did not.

8 Q. Was the photograph taken under your supervision?

9 A. Yes, it was.

10 Q. And do you know by whom this photograph was taken?

11 A. This was taken by a Pacific Gas & Electric tower --
12 excuse me, electrical line worker.

13 Q. Now, based upon on the orientation of the
14 photograph it appears that this photograph was taken by
15 somebody in tower 27/222.

16 A. Yes, it was.

17 Q. Can you explain to us why on November 14th,
18 approximately six days after the Camp Fire started, while
19 you're doing your cause investigation of the Camp Fire there
20 are PG&E employees in tower 27/222 taking photographs for
21 you?

22 A. Yeah. So I don't mess around with really big
23 electricity, and this is a big electricity. When I say "big
24 electricity," I'm referring to high voltage. If they tell
25 us it was de-energized, we still don't touch their lines.
26 That's not part of my job description. And PG&E Company is

1 a large entity. They're an industry leader in electrical
2 distribution transmission. And we could not find within
3 four states a contractor or any other licensed professional
4 who is willing to remove this equipment for us off of a
5 Pacific Gas & Electric tower.

6 Q. So you had to rely on Pacific Gas & Electric to
7 remove the equipment off the tower?

8 A. Yes, we did.

9 Q. And document the condition of the tower?

10 A. Yes, we did.

11 Q. So you were present?

12 A. I was.

13 Q. Was there other Cal Fire present to watch this?

14 A. Yes, there was.

15 Q. And a supervisor?

16 A. Yes, there was.

17 Q. And take control of the evidence?

18 A. Yes, there was.

19 Q. So photograph number 27 -- is that how that
20 insulator string was found?

21 A. Yes, it is. I watched this photograph being taken.
22 This was one of the first photographs that the line person
23 took. And they were instructed by me not to touch anything
24 until it had been well documented by photographed. Also,
25 there was an agreement -- and the reason why I have this
26 photo is we had an agreement with them that any photo they

1 took that day, because of their value, they would turn them
2 over to us so we would be able to examine them.

3 Q. And by "turn it over," you mean the SD card from
4 the camera?

5 A. The information from the SD card. They provided --
6 at the end of the day after all the evidence was collected,
7 they provided the SD cards to us, "us" being myself and
8 co-worker Mark Hillskotter, who is also in the prevention
9 bureau with me. Basically he's my counterpart. Mark
10 Hillskotter put the SD card into his computer and
11 transferred that information directly on his computer and
12 let me back that up. He copied the information to his
13 computer and returned the SD card, which stands for "secure
14 data," to PG&E employees to make sure they still had
15 their -- all their photographs as taken initially when they
16 confirmed, yes, they were whole in all the pictures.

17 Q. All right. Before we move on -- interesting here.
18 Can you give us a little bit of, I guess, placement as to
19 where this is, where this hook is as compared to the -- the
20 specific origin areas.

21 A. Yes, I can. Can I actually jump to -- hold on a
22 second. Let me take a look at it. Still try and describe
23 this in words. I don't have a really good overshoot of this.

24 When we were up there taking this photograph, there
25 was still firefighter operations going on. And so any
26 aircraft that was in the area was being used for

1 firefighting operations. So we had to get a really good
2 overshoot of everything like we'd normally like to get.

3 So this -- if I can kind of put it in perspective
4 here, this vertical beam right here that we're looking at in
5 this photograph is just a little bit turned from being
6 plumb. This vertical beam right here would be the southeast
7 corner of tower 27/222. This would almost be --

8 So if you're to draw a line between SOA one, two,
9 and three and just establish -- draw a straight line, this
10 would almost be directly above that line. And then our
11 insulator debris that came off of this bell here would also
12 be in line with it had it not tumbled down the hill a little
13 bit. So taking all of those factors into consideration, you
14 know, it's pretty easy to paint a picture of the sequence of
15 events that occurred.

16 Q. That was going to be my next question. You see the
17 white here at the top of the bell shape. That is, you said,
18 a broken insulator?

19 A. It's a broken insulator.

20 Q. And what other thing of interest --

21 Before we move on, what's all the greenery in the
22 background?

23 A. Yes. So to photograph -- excuse me. That was
24 taken several days after. This would have been in the
25 backing vector. We have already had something occur because
26 we are several days after the fire. The pine needles had

1 died and had fallen to the ground. So we see a lot of brown
2 down here and some ash pits down in this lower left-hand
3 corner. The fire backed from this location down that way.
4 So we're looking -- the way we're looking is almost straight
5 downhill towards the Feather River Canyon towards the
6 Feather River.

7 Q. Now, you went up to it the first time on
8 November 8th. You left. You went back on November -- you
9 couldn't get back in until November 10th. You did the
10 origin investigation and then ultimately you came back
11 approximately on November 14th to start the collection of
12 evidence in the cause investigation.

13 A. We never officially left.

14 Q. Right. That is the question I'm getting to. What
15 steps were taken to make sure that the scene was secured --

16 A. Okay.

17 Q. -- when you weren't physically there?

18 A. So early on -- I believe I touched on this last
19 Tuesday. Early on in the fire even as I was responding, I
20 identified that this would be a major incident. One thing
21 that we always do, like any good police officer or
22 investigator, is you always treat every scene as a potential
23 crime scene until you deem it otherwise.

24 So early on, like any other fire I go to, I had
25 identified a need for security. Now, sometimes I can
26 fulfill that need. Other times I cannot by myself. I'm

1 just -- physically I can't stay away for seven days straight
2 and watch a scene. So early on I ordered security as a
3 protective measure of the scene should we decide that there
4 was a potential for a crime scene to exist. So early on we
5 ordered security. We had security there 24 hours a day
6 seven days a week until we were done with our investigation
7 at this site.

8 Additionally, I had mentioned that we had Tom's
9 Earth Dozer, E-22. We had that dozer drive uphill -- not
10 uphill, up Camp Creek Road. He investigated for us. He
11 said there was a rock in the road and nobody has been
12 driving down it.

13 The next major intersection we knew east of there
14 was Dixie Road and Camp Creek Road. That intersection was
15 closed due to fire activity and again washouts, and later on
16 we investigated and determined that road was destroyed.
17 There was nobody going to be driving down that direction.

18 On the Pulga side of our GOA, which would be east
19 of the GOA, we actually had Tom's Earth pull another giant
20 boulder into the road and brought a fallen broken tree into
21 the road as well. So for some reason if somebody should get
22 past security and get past the bulldozer parked in the road
23 and still continue to go through, they're going to run into
24 an oak tree and another giant boulder.

25 So nobody was getting through. We did everything
26 we could to prevent anybody from getting through to our

1 protected scene.

2 We couldn't physically have security at the
3 location because they don't have the fire training and the
4 safety gear. They don't have that ability to be safe out
5 there. So we did everything we could to exclude the area
6 from all directions.

7 Now, could somebody have hiked over the hill, over
8 down through the fire and made their way through there?
9 It's not impossible, but I find it very unlikely.

10 Q. Now, you said that last week when you testified
11 that as you were walking up here and starting to look around
12 in your origin investigation, that -- I believe it was
13 Battalion Chief Thompson said something to the effect of
14 "That doesn't like right" and pointed up to the inverted
15 insulator string.

16 And you documented that in the photographs?

17 A. Yes, I did.

18 Q. When you finally got somebody up into the tower on
19 November 14th, had you noticed any changes to the insulator
20 string?

21 A. Changes in position or --

22 Q. Yeah.

23 A. No, there had been no changes.

24 MR. NOEL: It's two minutes after 10:00.

25 MR. RAMSEY: Go to 10:15.

26 MR. NOEL: You want to go a 10:15?

1 MR. RAMSEY: Correct.

2 MR. NOEL: All right.

3 BY MR. NOEL:

4 Q. All right. Let's go on to the photograph marked
5 People's Number Exhibit 28.

6 A. Yep. I have it here.

7 Q. Explain to us what we're looking at here.

8 A. Again, this is the insulator string with the
9 damaged hook from Caribou-Palermo 27/222. As I know it to
10 be coming from, it should have been the left phase of the
11 transposition line.

12 Q. You described it as "the damaged hook." What makes
13 you think this is damaged?

14 A. It no longer appears to be a hook. There's a -- so
15 I'm not a metallurgist. But from what I can see and my
16 understanding of metal, which is within the scope of -- you
17 know, I've had some training to understand how metal is
18 affected by fire, how it's affected by wear to the limited
19 scope within, you know, my discipline.

20 Some things I noticed in this photograph that I saw
21 is that there's -- and also in Exhibit 27 is there is a flat
22 face that has -- and this would be what I would call the
23 apex of what should be a hook. There's a flat face. It
24 appears to be oxidized. It's not shiny. It's not new
25 metal.

26 Q. Let's get away from there for now.

1 A. Okay.

2 Q. It's just pretty obvious that this is an incomplete
3 hook?

4 A. Yeah. It's not a hook.

5 Q. It doesn't look like it would actually hold up
6 anything?

7 A. No.

8 Q. All right. Now, obviously the hook breaking isn't
9 going to cause a fire?

10 A. No.

11 Q. So was the tower checked for other evidence of what
12 might have been the cause of the fire?

13 A. Unfortunately, I wasn't able to inspect the tower
14 myself, but I was able to examine some photographs that were
15 provided.

16 Q. Right. So we'll move onto Exhibit 29. What is
17 depicted in Exhibit Number 29?

18 A. In this photograph this is the conductor that we
19 spoke of from the transposition line from right to left
20 phase. And this is a point where -- although I can't see
21 it, it looks like this is a point where it made contact with
22 the structure of the Caribou-Palermo 27/222 tower.

23 Q. Why do you believe that this photograph shows that
24 the conductor may have made contact with the structure?

25 A. As part of the FI-210 fire investigation, the 210
26 course, we're taught to identify several things which causes

1 fire. It's a specific chapter within the curriculum.
2 Certain things we look for is scorch marks, a clear
3 demarcation from damage in the material. In other words, it
4 looks like it's been melted from a native position of the
5 metal. So in other words, if you look -- I'm going to use
6 this as a bad example. But here we have, you know, what
7 appears to be downed wire. It's round. I was straight.
8 It's as we expect a wire to look.

9 If you look in here, we have pitting, which there's
10 actual material missing. That is called a clear line
11 demarcation where it goes from very much a piece of drawn
12 wire to almost instantly having material missing. And there
13 is a pit in there. So I have a little bit of experience in
14 electrical --

15 Q. Why don't we take this opportunity to go over what
16 experience you have with electricity and electric wires.

17 A. So my whole family is in the International
18 Brotherhood of Electrical Workers on my mother's side; my
19 uncle, grandfather, my cousins. They all work as
20 electricians to some capacity; wiremen, linemen. I
21 disappointed them by becoming a firefighter instead.

22 But as I was growing up as a young man, I would
23 work with my uncles and my grandfather and my older cousins
24 in the trade, you know, staying out of trouble in the
25 summertime, making a little extra cash. And so I have been
26 pulling wire since I was about 15 years old and, honestly,

1 with my grandfather probably since I was four years old just
2 handing him screwdrivers. You know.

3 So seeing a wire that has arcing, I mean, it's --
4 to me it's pretty clear what it is. You know, having -- and
5 I still enjoy the trade. I still help out, you know, at mom
6 and dad's house and grandma and grandpa's house -- they're
7 still with us -- doing work for them. And so I am still in
8 the field, if not the trade. And so for me to identify, you
9 know, arcing is -- to me it's pretty clear.

10 Q. You used the term "arc" several times. What
11 does that term mean to you?

12 A. So arcing is when you have an electrical discharge
13 that is not turned on. So it's either going to be what we
14 call phase to ground, which this is an example of phase to
15 ground, or even phase to phase. So if you cross two
16 different wires, you energize two 110 wires that weren't
17 supposed to be touching. If they start touching, there is
18 going to be an arc. And that arc is basically electricity
19 jumping from one conductor to the other and burning the
20 atmosphere in between them causing even for just a second a
21 plasma which is basically superheated gases. And so it
22 creates heat in the area. And that is exactly what an arc
23 is.

24 So what ends up happening is you have this
25 discharge, this basic ground discharge where it energized
26 the conductor and made contact with a grounded structure and

1 an arc ensues.

2 So we had discharge from the conductor to the
3 grounded structure creating that plasma that are super hot
4 heated gases that heat the atmosphere which in turn melts
5 the conductor. And as it expands from it's super intense
6 heated, you know, localized area, it actually sends the
7 material out of its original case as it expands out.

8 It 's just a super fast -- I wouldn't call it an
9 explosion but more of a -- you know, maybe a burst where
10 that -- as that is heating up, it has to expand to go
11 somewhere so it goes outward. And so we are left with
12 pitting and melting and burning of material around it. You
13 know, there's lots of evidence of a discharge here.

14 Q. So just to define terms here, what you're referring
15 to as the conductor is what most of us would refer to as the
16 power line or wire; correct?

17 A. Yes. The industry calls them conductors.

18 Q. So what makes you think that this conductor was
19 energized when it fell?

20 A. If it wasn't energized, we would not have any of
21 this marking. What we would have is abrasions where it came
22 into contact -- maybe even a dent as gravity and part of its
23 force on it came into contact with the tower. But these
24 types of markings only happen from a discharge.

25 Q. And where is this in relation to this broken hook
26 and that insulator string that we're looking at?

1 A. So this photograph here is a really close-up
2 photograph. And so this (indicating) is a support arm.
3 They use, it looks like, three-quarter inch conduit or
4 three-quarter inch galvanized pipe of some sort. These are
5 used to support it. There's clamps between them. They keep
6 the conductor attached to the support.

7 In the photograph here in the bottom left-hand
8 corner is where the attachment to the conducting structure
9 string would be. And then this goes up attached to another
10 insulator string and then to the tower which leads to
11 Palermo.

12 Q. So this is above the inverted insulator string and
13 the hook which is dangling at the bottom?

14 A. Yes.

15 Q. Exhibit Number 30. Can you describe what we're
16 looking at here.

17 A. Exhibit 30 again just another view of the
18 conductor. It looks like they moved it a little bit. This
19 particular marking here a metallurgist would have to define
20 what that is exactly. That could be arcing evidence. It
21 can be abrasions from this just leaning against the tower.
22 Regardless though, here we have really good pitting, really
23 good lines of demarcation that comes from being normal drawn
24 conductor to having material damaged.

25 Again, here are the support bars. We have good
26 pitting as well. Now, this is -- I believe this to be

1 steel. I didn't test it with a magnet. But based on its
2 makeup, mass, you know, I believe it to be steel. This
3 appears to have -- and also because it has kind of a
4 different pattern the way it burned. Steel takes much more
5 energy to melt it and for it to become fluid.

6 The aluminum, you know, somewhere between 750 and
7 1200 degrees, depending on the alloyed steel upwards of 2500
8 degrees for it to melt. So there was arcing that occurred
9 here as well although not as defined as the aluminum. There
10 is arcing that occurred on the support arm itself because
11 it's energized in line.

12 Q. All right. Now, we're on to Exhibit 31; the
13 photograph.

14 A. So this is kind of a back-up picture. Can we back
15 up a little bit. This kind of just shows the overall -- for
16 reference, this is Caribou-Palermo 27/222 and this rope here
17 is the lineman's or the line worker's safety line that he's
18 using to protect himself from falling. I watched him attach
19 that. That wasn't already there natively before we arrived.
20 And this is just kind of an overview kind of showing all the
21 damage.

22 Q. Again, right here is the southwest leg of the
23 tower?

24 A. Yes.

25 Q. Or southeast. I'm sorry.

26 A. This would be the southeast corner of the tower,

1 yes.

2 Q. The crossmember that we were talking about earlier?
3 The crossbeam?

4 A. Yes. And this photograph is at the -- actually, it
5 would be at the horizontal level. So we're kind of looking
6 from a lower position looking up at the damage.

7 Q. Now, in the earlier photograph we were looking at
8 the damage on this metal or steel pipe, for lack of a better
9 term. Here we're seeing a little bit better the
10 relationship between it and the conductor.

11 A. Yes.

12 Q. Are you familiar with why that pipe is there or
13 what that pipe is?

14 A. So I asked -- during our evidence collection day, I
15 asked the PG&E representatives who were there "What is the
16 purpose of that bar?" And they said it was just to
17 stabilize that conductor to keep it from slacking and having
18 the ability to sway in the wind.

19 Q. All right. One more photograph; Number 32.

20 A. So this is a different perspective of the same
21 photos we had just been looking at. So this is -- again,
22 this is the member steel right here is the southeast corner
23 of the Caribou-Palermo 27/222 tower. This is that arcing
24 evidence we've been talking about the last two photos.

25 What this photo provides is the contact points on
26 the tower itself. So what I earlier described as that

1 horizontal level member that can -- is what we're looking at
2 across this beam here. And these pitting marks here are
3 what I recognized and what one of our electrical engineers
4 identified as evidence of discharge for a phase ground
5 discharge.

6 Q. So basically the energized conductor made contact
7 with the steel crossbeam right in that location?

8 A. In at least these two locations, yes.

9 Q. Right. And so as a result there's pitting on the
10 conductor itself as well as the pitting on the crossbeam?

11 A. Yes.

12 Q. And then from the electricity arcing between the
13 energized conductor and the steel crossbeam?

14 A. Yes.

15 MR. NOEL: We ready to take a morning recess?

16 GRAND JURY FOREPERSON: I think we are.

17 Everybody agree? Yes.

18 MR. RAMSEY: Madam Foreperson, approximately
19 15 minutes?

20 GRAND JURY FOREPERSON: 15 minutes, yes, please.

21 MR. RAMSEY: Thank you.

22 GRAND JURY FOREPERSON: Back by 10:30ish.

23 [Recess taken from

24 10:18 until 10:33 a.m.]

25 GRAND JURY FOREPERSON: I think every one is back
26 from break. Yes.

1 MR. RAMSEY: It does appear everyone is back.

2 GRAND JURY FOREPERSON: It does appear that
3 everyone is back from break.

4 MR. RAMSEY: Yeah.

5 BY MR. NOEL:

6 Q. All right. Now we're up to Exhibit Number 33, the
7 photograph. Do you have that in front of you?

8 A. I do.

9 Q. Can you please describe what we're looking at in
10 Exhibit Number 33.

11 A. Yes. So this is again looking at the southeast
12 corner of the Caribou-Palermo 27/222 tower. This is part of
13 my instruction that I gave to -- or direction that I gave to
14 the PG&E workers as they were removing evidence was to
15 photograph everything before they touched it and photograph
16 everything after they have touched it.

17 So that is a photograph after they removed the
18 conductor. Before they removed the conductor, I also had
19 them mark the tower using electrical tape below as well as
20 above the contact points so that if we have to go back in
21 the future, we can identify that again as well. But in this
22 photograph that we're looking at is again that horizontal
23 support member of the tower.

24 And to reference the previous photograph
25 Exhibit 33 -- excuse me, Exhibit 32, these are the same two
26 discharge evidence that we saw in the previous photograph.

1 Now, this is just another perspective of the discharge
2 evidence that we saw in the photographs. We have another
3 one here. Although it doesn't have good clarity in this
4 photograph, there is evidence of a discharge in both the
5 sooting and staining of the painted metal. There also you
6 can see there are white marks that, I think, in this
7 photograph would be similar to these as well referring to
8 the discharge evidence.

9 Q. So let's move on to 34. Do you have that
10 photograph?

11 A. I do.

12 Q. And describe for us what the photograph Exhibit
13 Number 34 is showing.

14 A. This is the Caribou-Palermo 27/222 tower. Again,
15 this is a perspective of the southeast corner. And we're
16 basically from the outside looking towards the inside of the
17 tower. So we are basically outside looking in.

18 This line we see up here I believe -- without
19 having been up there just off these photographs, I believe
20 this would be evidence of an abrasion from that conductor
21 making contact after it was de-energized. But this mark
22 right here we can see in the photograph with the black
23 around it, around the corner of the support tower member has
24 evidence of a discharge at that point as well.

25 These different spots here are different. You
26 notice that they don't have the -- if you -- if I may refer

1 back to real quickly a better photograph. To Exhibit 32.
2 Exhibit 32. You see this discharge that is here, it also
3 looks like there's a button in the middle of it where the
4 metal had melted and then cooled. Like it almost looks like
5 there's a coat button in the center of that metal.

6 And if we go back to 34, it's different. That
7 black around the smaller dots is much smaller which means
8 that we didn't -- I don't believe these are points of
9 discharge. I believe these to be actual -- where molten
10 metal from where the conductor had fallen onto the member
11 after it left the conductor and it adhered itself to that
12 metal and only burned the paint around it.

13 Q. We also had spots like that on this other
14 crossmember?

15 A. Yes.

16 Q. Three of them to the left way?

17 A. Yes.

18 Q. All right. So 35. This one, because it's backlit,
19 it's a little hard to see. But if you can explain to us
20 what we're looking at.

21 A. Again, this is the southwest corner of the
22 Caribou-Palermo 27/222. The very bottom of the picture we
23 see that tape mark identifying the lower extent of the
24 contact with the conductor. This is after the conductor had
25 been removed. This is a really terrible picture on the big
26 screen, but it does appear to be the same as the exhibits I

1 have in my hand 35. I can see on your photograph that there
2 is that black mark. It's a close-up. And again, a lot of
3 that small metallic pitting all over as well. Judging by
4 this photography I would say that that is evidence again of
5 metal that had melted, was hot, and made contact with the
6 tower.

7 Q. Now, we have seen photographs of the inverted
8 insulator string and the apparently broken hook. Did you
9 direct the PG&E employees who were in the tower removing
10 this for you to also take photos of other similar insulator
11 strings in position?

12 A. I did.

13 Q. Moving on next to what is marked as Exhibit
14 Number 36 for identification. Do you have that photograph?

15 A. I do.

16 Q. And what is it that you see in Exhibit Number 36?

17 A. I recognize this photograph to be the photograph of
18 the -- what we call the right phase insulator string that
19 supported the transposition line conductor in the
20 Caribou-Palermo 27/222.

21 Q. And what is the significance of this photograph?

22 A. Several things. Number one, it gives us a good
23 example of the position our subject insulator string should
24 have been in. It tells us "I know this is the way it was
25 intended to be set," not the insulator string hanging from
26 the conductor touching the tower. This gives me an idea of

1 what the original hook would have been most likely to look
2 like.

3 But as part of my cause investigation, I didn't
4 settle for just that. I wanted to find out more about this
5 equipment. So I put in a request to PG&E asking them for
6 any information they had on these hooks and any of the tower
7 components. And they were -- they complied with my request.
8 And I actually got specific drawings for this
9 Caribou-Palermo construction line identifying what these
10 hooks originally should have looked like and what these
11 towers originally looked like.

12 Q. Let me stop you right there. When you say
13 drawings, are you talking about like computer drawings or
14 hand drawings?

15 A. No. These were hand drawings like drafted
16 documents from I believe -- I'd have to look at the
17 individual documents but circa 1910 to 1922. So old
18 documents. But these are the documents they provided for
19 the -- as built for the Caribou-Palermo line, which was
20 originally called the Caribou-Goldengate line originally.
21 It was under the Great Western Power Company.

22 That's what I learned from those drafted documents
23 is that the apex of this hook is supposed to be 15/16ths of
24 an inch from top to bottom. It is somewhat oblong. The
25 width should only be 7/8ths of an inch.

26 This hole that you see in the foreground -- there's

1 two. You can see the hole in the foreground on this
2 bracket. That is attached to the end of the support arm of
3 the Caribou-Palermo 27/222 tower. That hole -- by those
4 specific drawings that hole is only supposed to be an inch
5 and one-eighth in diameter drilled with a machine drill.
6 That being said, simple math where they're showing me
7 three-sixteenths of space between the top of the apex of
8 this hook and the top of the apex of that hole. And as you
9 can see, there are a lot more than three-sixteenths of an
10 inch. I was not able to measure it on the tower as it
11 stood. But looking at it I can see that there's more than
12 half a diameter of that hole showing air space between the
13 hook and the hole itself.

14 Q. And what are these brown disk-like things?

15 A. Those are the insulators; the insulator bell.
16 These insulators are actually three parts. You have a cup
17 that is made out of steel. This insulator itself, the
18 concentric circle that is made out of ceramic. It's
19 actually cemented and ground into the cup. And then there's
20 a pin inside. You have a better view down here. These pins
21 are also cemented and grounded inside the ceramic insulator.

22 So there is no metal-to-metal contact. That is how
23 they insulate it. So this is what the insulators are
24 supposed to look like when they're in good repair; the
25 insulator and the hook. This hook is actually showing signs
26 of damage as well.

1 Q. Now, moving on to 37, do you see that photograph?

2 A. I do.

3 Q. And what is depicted in the photograph marked as
4 People's Exhibit 37?

5 A. This is another perspective. This is again the --
6 what I recognize as the right phase insulator of the
7 transposition conductor of the right-to-left phase of the
8 27/222 tower. It's just another perspective looking more
9 easterly. It's a great example because this also shows that
10 there is another hole drilled in the actual support member
11 itself. And if you look closely -- I examined this
12 photograph zoomed in pretty well. There appears to be
13 another wear mark that makes it greater than an inch and
14 one-eighth in diameter. This tells you at some point there
15 was another piece of equipment hanging from that hole and it
16 caused wear on that location.

17 Q. So one of the other things that this photograph
18 gives us is some perspective. This looks like a road
19 running through the photograph there.

20 A. Yes, it is.

21 Q. What road is that?

22 A. That is Camp Creek Road.

23 Q. So earlier when we talked about the proximity of
24 tower 27/222 and specifically the specific origin areas and
25 the general origin area to Camp Creek Road, were you talking
26 about how far up above -- vertically above the road?

1 A. Yes.

2 Q. And this photographs illustrates that?

3 A. Yes, it does. It also shows the terrain very well
4 as well as the background. You can see that at the next
5 spur ridge, for lack of a better term, it shows the terrain
6 and how steep it is. And the hill that the subject tower is
7 on has very similar terrain.

8 Q. All right. Now, you noted in photograph Exhibit
9 Number 37 that there is two holes. Did you direct the
10 photographs be taken to document those holes?

11 A. I did.

12 Q. Directing your attention to photograph Exhibit
13 Number 38, do you have that photograph?

14 A. I do.

15 Q. And what is Exhibit Number 38 showing?

16 A. This is a photograph that was taken by PG&E tower
17 line personnel and this is the left -- we call the left
18 phase of the transposition conductor of Caribou-Palermo
19 27/222.

20 Q. So let's take a second here and define what you
21 mean by "left phase" and "right phase."

22 A. So like we spoke before on Tuesday, with my back
23 towards the Caribou Powerhouse I am facing -- in this case I
24 would have been facing west. We refer to the tower as
25 everything on the ride side is right-hand phase and
26 everything on the left is the left-hand phase and the center

1 is going to be middle phase.

2 Q. So is this the crossarm to which the inverted
3 insulator string with the broken or apparently broken hook
4 should have been attached?

5 A. Yes. As exemplified in photograph 37 all things
6 being the same, yes, this is where it should have been
7 hanging.

8 Q. So that hook, if it had actually been a hook at
9 that point, would have been hanging through either one of
10 these holes that we see here in 38?

11 A. Yes.

12 Q. Now, let's move on to 39.

13 A. Okay. I have that photograph in front of me.

14 Q. You have that photograph?

15 A. Yes.

16 Q. And describe what we're looking at?

17 A. This is the same perspective, but they've began
18 removing equipment. So the crossarm we saw above the prior
19 is now missing. So as I directed them, they photographed
20 everything as they -- before, after, and during the removal.
21 And this better kind of shows a little different
22 perspective. It's a little higher. You can see -- although
23 it's not the best picture, you can see the wear, the pattern
24 a little better in this photo than in the previous photo.

25 Q. So just to quickly summarize the photographs we
26 have been looking at now starting at number 27 and running

1 through this one Number 39, those were photographs that were
2 taken by PG&E personnel in the tower; correct?

3 A. Yes.

4 Q. And those were taken at your direction and
5 under your supervision?

6 A. Yes.

7 Q. And then immediately that day when they came out of
8 the tower the SD cards were handed over to you to download?

9 A. Correct.

10 Q. Or actually to your partner Mark Hillskotter?

11 A. Hillskotter.

12 Q. All right. So you direct PG&E to remove all this
13 stuff from the tower?

14 A. Yes.

15 Q. And what is done with it when it's removed?

16 A. Once it is removed, it's lowered to the ground
17 where a receiving team -- again, because of the location,
18 the receiving team was comprised of Pacific Gas & Electric
19 employees. They received the equipment on the ground. It
20 was placed on a yellow tarp for protection to keep it clean
21 and then it was documented and photoed.

22 Q. So moving on to People's -- or to Exhibit Number 40
23 for identification, do you have that exhibit with you?

24 A. I do.

25 Q. Describe what we're looking at in Number 40.

26 A. So this is the left phase insulator string with the

1 hook still attached. This is when it first came to the
2 ground. And I started photographing, you know, basically
3 its condition. In the photograph what we see is a Pacific
4 Gas & Electric pre-marking each bell just in the order from
5 number one being close to the rack down to ten which is the
6 last insulator on the string. Again, we see the broken
7 insulators and at the end of the insulator bell one you see
8 the damaged hook.

9 Q. So that is immediately after that insulator string
10 was removed from the tower?

11 A. Relatively, yes. There were a series of
12 photographs that were taken, yes.

13 Q. Moving on to Number 41, what is depicted in Exhibit
14 Number 41?

15 A. So this is the hook that is damaged. That is
16 attached to the first insulator string. This is the first
17 insulation bell of the insulator string that you saw
18 inverted from Caribou-Palermo 27/222. In the photograph you
19 can see that there is wear and metal that has been deformed
20 near the edges.

21 One thing that I did note when it came to the
22 ground and I had an opportunity to exam it is that there's a
23 difference in the presentation of this metal and the phase
24 of the damage as opposed to this even -- I know it's not
25 terribly easy to see in the photographs that you have but --

26 Can we zoom into this a little bit.

1 Q. Sure. Is that better to see?

2 A. Earlier when I was kind of speaking of what I think
3 is oxidization, that is more for a metallurgist to
4 determine. But this appearance and presentation is
5 different than that. This appears to be relatively smooth.
6 This appears to be jagged. And you can actually see what
7 was told to me to represent a --

8 Q. Okay. Let's not go with anything that's told to
9 you.

10 A. Yep. So we can see it's a jagged point which
11 appears to be something as simple as a break, yeah.

12 Q. Let's move on to 43.

13 A. You skipped one.

14 Q. Did I skip one? Oh, yeah. I skipped 42.

15 A. I have 42 in front of me.

16 Q. And also in both 41 and 42 there's some kind of a
17 white thing.

18 A. Oh, a glove?

19 Q. A glove.

20 A. Yes.

21 Q. So that is somebody's hand?

22 A. Yes, it is.

23 Q. Somebody is holding it. Maybe we have to make a
24 record of all of this.

25 A. Yes. And I'd also like to note that these pictures
26 that we're looking at right now were not taken by me. These

1 were actually taken by Mark Hillskotter.

2 Q. Spell that last name for us.

3 A. H-i-l-l-s-k-o-t-t-e-r.

4 Q. And who is Mark Hillskotter?

5 A. Mark Hillskotter is my counterpart of the bureau.
6 At the time of the fire he was assigned to Lassen/Modoc Unit
7 as prevention 2224 here in Butte County. He's now 2124.

8 Q. So he's a fire captain just like you?

9 A. Yes, he is.

10 Q. Assigned to the Fire Prevention Bureau?

11 A. Yep. And he attended POST with me.

12 Q. And a fire investigator?

13 A. Yes, Sir.

14 Q. Okay. What are we looking at here in 42?

15 A. It's a similar photo to 41. It's a different
16 perspective. I asked the PG&E employee to rotate the
17 insulator bell and attached the damaged hook to get a better
18 view of the phase of the damaged portion. I know the shadow
19 here -- this is kind of still the rounded portion. So this
20 is kind of turned up just a little bit and this would be
21 what used to be the apex of the hook.

22 Q. Now, you said that you've reviewed documents from
23 PG&E, original schematics on this and that this hook -- the
24 apex from edge to edge, that is supposed to be
25 fifteen-sixteenths of an inch?

26 A. Yes.

1 Q. Now, and the hole that it was going through was
2 supposed to be one and one-eighth of an inch?

3 A. That is correct.

4 Q. Or basically eighteen-sixteenth of an inch?

5 A. Yes.

6 Q. All right. Let's move on to 43. Tell us what
7 we're -- what we see in Exhibit Number 43.

8 A. So this is as they're disassembly portions of the
9 tower you've identified that we wanted to maintain as
10 evidence. This is the left -- wait, a PG&E employee
11 referred to as a runner. We have been referring to it as a
12 support beam. This is a tower portion. This is the --

13 Oh, my goodness. I didn't touch it.

14 Q. The county no longer likes Java so 14 times a day
15 Java sends a message.

16 A. So this is the -- basically the left support
17 structure that's supported the subject insulator that was
18 damaged and made contact with the -- allowed the conductor
19 to make contact with the tower. So this is just kind of an
20 overall view of it coming down to be marked by an PG&E
21 employee.

22 Q. So you said PG&E refers to this as a left runner?

23 A. It's more of a colloquial term. There's jargon
24 within the industry and these being.

25 Q. But that's what's PG&E's writing on the inside;
26 correct?

1 A. Yes.

2 Q. And I just want to have you explain real briefly
3 why it is that when evidence is removed like this, that it's
4 immediately written on and marked.

5 A. In order to keep items identified -- you never know
6 at the end how many pieces of whatever we're going to have
7 so everything gets identified immediately. Documentation is
8 absolutely of the utmost important when collecting evidence.
9 You've got to know who collected it, how it was collected,
10 what item was collected, the time it was collected. A lot
11 of information is actually captured by camera and the
12 MedData that goes with the camera. But everything needs to
13 be identified from the moment we get our hands on it until
14 it's maintained.

15 Q. So let's talk briefly about the process of removing
16 these items from the tower. Just give us a basic overview
17 of how that occurs.

18 A. Specifically towers in general?

19 Q. From these towers just give us a general --

20 A. Well, it's no feat of ease. I will tell you that
21 much. All of that equipment is extremely heavy. You have
22 to basically identify who is going to do it, the individuals
23 identified after briefing and clear direction climb up in
24 the tower using safety harnesses. They have to have minimum
25 one point of contact all the time. When I say "contact," I
26 mean they have to be tied in.

1 So as they are climbing, they are using two hooks
2 to work their way up the tower to get through the members.
3 So they are never disconnected from a safety line.

4 Once they get up there, they have to de-energize
5 the lines. Excuse me. Not de-energize. They have to
6 insure they are grounded so, you know, that the lines -- the
7 line is de-energized by their company. They still have to
8 attach grounding wires. So they connect the wire to the
9 conductor. I don't do it. But if they feel it's safe, they
10 connect a wire to the conductor and then attach that wire to
11 the structure itself because the structure is grounded. So
12 once they know that everything has been grounded and it's
13 safe, then they have to slowly disconnect the parts.

14 They have pulley systems they rig up to load all
15 this heavy equipment and safely lower it to the ground.
16 It's quite a feat to watch. I'm sure it's more of a feat to
17 do, but I will never know that.

18 Q. So one of the things that I want to get is these
19 parts are being disconnected and lowered to the ground one
20 at a time; correct?

21 A. One at a time.

22 Q. So as they're being lowered to the ground by ropes
23 and the pulley system, they are immediately taken -- they
24 are immediately marked up. They are immediately documented?

25 A. Immediately.

26 Q. Okay.

1 A. And they are even photographed as they are coming
2 down. We have --

3 Q. And that was the next point is you're standing
4 there or in this case your partner Captain Hillskotter is
5 standing there photographing everything as it's going on?

6 A. Yes, Sir.

7 Q. All right. So this is what the PG&E person
8 identifies as a left runner; correct?

9 A. Correct.

10 Q. Which we have talked about as a left crossarm, a
11 left crossmember, or a left phase?

12 A. Yes. I know we keep bouncing back and forth in
13 terms, but there's -- a lot of these terms are used
14 unilaterally in the industry.

15 Q. And also a lot of them depend upon what exactly it
16 is that you're talking about the context?

17 A. Correct. Most of these pieces start out as a piece
18 of angle iron.

19 Q. So this is the phase or the crossmember or the
20 runner to which the inverted and broken insulator string
21 should have been attached?

22 A. Yes.

23 Q. And these holes -- one of these holes is where the
24 hook -- what used to be a hook or appears to have been --
25 used to be a hook should have been attached?

26 A. Yes.

1 Q. All right. Let's move on to 44. Describe what we
2 are looking at in Exhibit Number 44.

3 A. Again, this is the item that the PG&E worker
4 identifies as the right runner. Excuse me. Left runner.
5 Left runner. Excuse me.

6 Q. Is that right or left?

7 A. This is the left. Oh, 44. I had 45 here. Sorry.
8 Okay. I got out of sequence here.

9 Q. All right.

10 A. Forty-four. This is 44, and this is the same
11 photograph that is on the screen.

12 Q. Great. So that is the right runner. That is the
13 runner crossmember phase to which the insulator string was
14 still attached?

15 A. Yes, it is.

16 Q. And see the holes that are -- that are in the phase
17 crossmember runner?

18 A. Yes, I do see them.

19 Q. And you've looked at documents provided by PG&E as
20 to designs for these things?

21 A. Yes.

22 Q. Did the holes that we are seeing in these items
23 match what the design specs show?

24 A. No, they don't. If I may elaborate.

25 Q. Yes.

26 A. The design specifications for both of these pieces

1 of equipment, both the pieces of angle iron that is
2 identified as right runner but also the bracket that was
3 identified in their specifications is ST-20. I'm not sure
4 what that means, but that is what the bracket is identified
5 as. They both are identified to have an inch and one-eighth
6 diameter hole drilled with just a machine drill. So this
7 should be as round as a hole could be drilled. And what we
8 see in the photograph is we see this oblong wear mark, this
9 one being shiny and this one is not shiny. I actually used
10 this as comparison to identify which hole was likely being
11 used on the other support arm.

12 Q. Let's get to that real quick because that is the
13 next photograph we have. Number 45.

14 A. Yes. So in 45 when the equipment was down on the
15 ground, I was able to examine it closely. And I could
16 see -- and also evident in this picture -- that on the ST-20
17 bracket, there is a shiny wear mark and on the angle iron
18 portion, what I would consider probably to be the original
19 use hole, there was no shiny wear marks. So using the right
20 support arm as an exemplar I was able to figure that the
21 bracket, the ST-20, is where the damaged hook was hanging
22 from.

23 Q. Now, going back to the original schematics, the
24 blueprints for those towers that you went back to, do those
25 blueprints show this ST-20? This additional bracket?

26 A. No, they don't. That ST-20 was intended to be used

1 on the T superstructure that is above the towers for a
2 transposition tower.

3 Q. Okay.

4 A. That was not identified to be used as a support
5 bracket for this use.

6 Q. So in the original schematics and the blueprints
7 that were provided to you by PG&E for these towers, where
8 were the insulator string, the suspension hooks to connect
9 to the crossarm?

10 A. In the original drawings the hooks that supported
11 the insulator strings were supposed to be in the angle
12 iron -- the hole drilled was in the angle iron itself.

13 Q. Okay. Let's move on to 46.

14 A. I have 46 in front of me.

15 Q. And what does 46 show?

16 A. Exhibit 46 is the right support arm or right runner
17 inverted. This photograph just shows a different
18 perspective; the underside of those brackets. I think it's
19 a better example of the original wear that had occurred in
20 the original hole that was drilled in the angle iron. It
21 also shows the sharp corners where it goes from the original
22 drilled hole to the worn area where the hooks are sitting.

23 Q. So why don't you pull out the drawing tool on
24 there. And just to demonstrate, show us when you said the
25 original hole wear versus the wear. Highlight that.

26 A. I will use red. These corners are here. They are

1 visible. I'm exaggerating here just a little bit for that.
2 These sharp corners are what are referred to as a clear line
3 demarcation where it goes from the original hole that was
4 drilled into transitions in the wear line.

5 Q. Right.

6 A. Does that answer the question?

7 Q. Yep.

8 A. Okay.

9 Q. Let's move on to 47. And what are we looking at in
10 47?

11 A. This is the left runner, and this is probably one
12 of the better pictures that shows the same wear pattern.
13 Again, using the drawing tool in red I will identify those
14 same points of demarcation where the transitions from the
15 original milled steel to the wear pattern.

16 Is that more visible? Does that help?

17 Q. Now, this one also shows again the shiny metal on
18 the base of the hole on the bracket. The ST-20 bracket;
19 correct?

20 A. It does, yes, right here on the bottom edge. I
21 will draw that again.

22 Q. It sure is nice having this big TV.

23 A. So you could see here I'm going to draw in blue --
24 actually, I'm going to circle it because I don't want to
25 draw on top of it. Even though there's a shadow there, I
26 can tell you I did not see anything shiny in that hole. And

1 even in this picture you can see there is nothing shiny or
2 reflective in that area. Right here in blue again on the
3 ST-20 bracket you can see that there's a shiny edge.
4 Actually, I wouldn't call it an edge. It's somewhat rounded
5 where the wear had taken place.

6 Q. And just to specify, I know it's pretty obvious,
7 but can you show us what side is top and which side is
8 bottom. Kind of up and down.

9 A. Yeah. So it's native position that we found it in
10 would have been up.

11 Q. All right. Moving on to number 48. Oops. There
12 we go.

13 A. Can we zoom in on this picture.

14 Q. First, let's set the foundation here. What are we
15 looking at?

16 A. So this is Exhibit 48; the same photograph that I
17 have in my hands. This is the right phase insulation string
18 hook. This is the -- that one was still intact on the tower
19 as we found it. Again, we have a PG&E employee holding it
20 in his hand. And there is other evidence in the background,
21 but specifically what we're looking at here is this specific
22 hook. There is several things to note about the hook.

23 Q. Want me to blow it up?

24 A. Yes, please.

25 Q. There.

26 A. There are several things to note on the hook.

1 First off, it's a complete hook, mostly complete hook.
2 There are marks that we identified. I know you can't see
3 texture here so much, but this is actually a raised "B."
4 It's a casting place. And then you have an "OB" or a circle
5 with a "B." We later learned that "OB" is the signature
6 stamp or raised insignia for the Ohio Brass Company. The
7 raised "B" was an earlier stamping or identification for the
8 Ohio Brass Company. And that particular raised "B" was also
9 identified in the build specifications that we got from PG&E
10 in those hand-drafted documents.

11 So this is what was the intention when they
12 designed the -- this isn't the intended hook that was used.
13 That's the original design specifications. So this raised
14 "B" here you see, that appears in the original design specs
15 for the tower line. And that is the only place we found it.

16 Q. Okay. And those records that were provided by PG&E
17 reference this as the Ohio Brass Company?

18 A. Yes, it is. And there is a category number that
19 goes with it, but I don't have that on me.

20 Q. Okay. And then you said this circle with a "B"
21 inside, that you were also able to identify that that goes
22 to the Ohio Brass Company?

23 A. Yes, it is.

24 Q. How were you able to identify the circle "B" to the
25 Ohio Brass Company?

26 A. I did a great deal of research through the

1 Internet, contacting different companies. Come to find out,
2 the Ohio Brass Company was originally -- was later purchased
3 and owned by Hubble Company who now makes equipment for the
4 transmission line industry. They were able to tell me and
5 confirm what I found on the Internet; that the "OB" was --
6 the circle "B" is the Ohio Brass Company. So not from the
7 original company but the company that bought them told me
8 that that is the emblem for Ohio Brass Company.

9 Q. Have you been able to determine how far back in
10 time the circle "B" goes?

11 A. So we know that our drawings with the raised "B"
12 are from 1911 and the circle "B" is somewhere around 1921.
13 So we're in that area. So roughly a ten-year period was the
14 first -- I think 1921 is the first record of the circle "B"
15 and our first record of the raised "B" is 1911.

16 Q. Now, we didn't put another picture in here, but
17 this is the right phase. This is the insulator string that
18 was still hanging on the right crossarm; correct?

19 A. Yes.

20 Q. And this has the circle "B" which would indicate
21 1921?

22 A. Yes.

23 Q. At least. The left phase, the broken hook --

24 A. Yes.

25 Q. -- were you able to find a marking on it?

26 A. Yes. I think we actually have a photo of it if we

1 go back to Exhibit 28.

2 Q. There it is.

3 A. There's the raised "B."

4 Q. So the hook that failed only had the raised "B"?

5 A. Correct.

6 Q. And you said that was consistent with the hook that
7 was shown in the schematics and diagrams for the building of
8 this tower line and that were provided to you by PG&E?

9 A. Yes. All told it was on the opposite phase. So in
10 this schematics it would have been written on the other side
11 of it.

12 Q. So more or less the same?

13 A. The same "B" design.

14 Q. And there was no circle "B" on this hook?

15 A. No, no. That was the only marking that is still
16 visible.

17 Q. All right. Let's go to 50. Oh, you want to go
18 back?

19 A. Yeah.

20 Q. Okay. Go ahead.

21 A. There's still some -- actually, I don't think we
22 talked about 49 yet. We talked about 48 so we can talk
23 about 49. That works.

24 Q. Okay.

25 A. So I have 49 in my hand. This is the same on the
26 screen. This it's a little bit different angle than 48.

1 I'm going to identify a couple things here that may be
2 difficult to see. So of course we have the white glove in
3 the background. What I can identify here -- it only
4 identifies the glove outlined as I see it in this
5 photograph. So that is where I see gloves. So what this
6 shows is that there's a significant wear pattern in this
7 hook. I know it's difficult to see in the photographs you
8 have in front of you, but there's a significant amount of
9 material missing from this particular support hook or C-hook
10 as they call them.

11 And again, we have the shiny phase that is
12 consistent with the shiny wear marks on the inside of the
13 support arm or the right runner in this case.

14 Q. So is it safe to say that this channel lines up
15 with where this hook would be hanging from the support arm
16 or the phase or --

17 A. Yes. That's -- I saw that hook in the eye of that
18 ST-20 bracket on the right runner.

19 Q. So when you were able to see it up there, that is
20 where the contact is being made between the angle iron of
21 the phase or crossarm or runner and the hook itself?

22 A. Correct.

23 Q. All right. Ready to move on?

24 A. Sure. You skipped one.

25 Q. Double-checking. All right. The next couple of
26 photographs I think are going to have to do with the wires.

1 You know.

2 A. Yes. There's quite a few of them.

3 Q. Yep. 50, 51, 52. We're up to Exhibit Number 50.
4 Do you have that in your hand?

5 A. I do.

6 Q. And describe for us what is depicted in Number 50.

7 A. So this is the conductor -- the transposition
8 conductor with the support bar that was brought down. This
9 is a close-up view of it once it was on the ground. What we
10 can see is we have the conductor with damage to it where it
11 goes from being in tact to being frayed and the material
12 missing.

13 Q. All right. Exhibit 51.

14 A. Exhibit 51 again is more evidence of discharge in
15 the different portion of the conductor. This was the
16 portion that you saw earlier that had the portion actually
17 touching the tower when we arrived. Again, this is on the
18 ground and this is the transposition conductor.

19 Q. All right. From your training and your experience
20 in dealing with electrical fires and electrical wiring, are
21 you familiar with the term "bird-caging"?

22 A. Yes.

23 Q. What does bird-caging mean?

24 A. So bird-caging is when you have a strand set of
25 wires within a C conductor. So that is a sealed conductor.
26 And each one of these individual segments is a wire within

1 the conductor. And what occurs is when we have some sort of
2 discharge or significant overheating, the aluminum conductor
3 expands. I mean, it gets heated up. And like all metal it
4 expands as it gets heated. And if it's not continued -- if
5 it's not allowed to cool slowly and it cools rapidly, it
6 will actually freeze in that expanded position which is what
7 we see here.

8 So we have where this entire conductor should be
9 wound tight like it is right next to the bracket here.
10 Actually, this isn't wound that tight. There's a little bit
11 of evidence of bird-caging here, but it's probably the
12 tightest portion we can see in this whole conductor line.

13 But this (indicating) is the bird-cage. Basically,
14 it opens up and visually it's comparative to a birdcage.
15 And that's why they call it bird-caging. That is a
16 technical term; bird-caging. That is how it occurs just
17 from that rapid heating and rapid cooling.

18 Q. All right. Moving on to Exhibit 52, tell us what
19 we're looking at here.

20 A. So this is another perspective of the conductor at
21 the most significant discharge point. I say it because
22 there is the area that had the most amount of material that
23 is missing and some of our best evidence of a discharge.
24 There is a foot in the background. I believe that is one of
25 the PG&E employees. Yeah.

26 Q. All right. So first up on this one, again is this

1 an example of bird-caging where the wire is?

2 A. Yes, it is. So there's all this open and twisted
3 area. This is bird-caging. I'm not going to exclude the
4 possibility that some of this was opened up from the wind
5 potentially moving this after the fact. But all the way
6 down here this is mostly significantly here. This is all
7 bird-caging here. This within the protected area is
8 absolutely bird-caging. That is absolutely bird-caging.
9 This was definitely portions of bird-caging, but I think it
10 might be some other articulation that occurred within.

11 Q. Now, you said that this also shows that we have
12 wires that are broken. We have strands of this conductor
13 that are broken. But you also said it shows that there's
14 strands of wire missing.

15 A. Yes. In the next photo it has -- actually the next
16 two photos have a better example.

17 Q. All right. Let's go on to 53.

18 A. So 53 is a little bit more closer up. And I do
19 have that photograph in front of me. This is 53. Wrong
20 direction but a closer-up example. But I think 54 is
21 actually going to be the best one to talk about. It shows
22 the most material missing. We can come back to 53.

23 I have 54 in front of me; that very good close-up
24 photo. A lot of great things to look at here. First off,
25 what we have is these marks here and there is wire that has
26 been separated. It goes from being -- again, we talked

1 about a clear line of demarcation.

2 There is some previous abrasive damage that is done
3 here to this bracket that you can see where this conductor
4 has almost been adhered to a flat surface on the top right
5 side over here where it appears to be rounded. But that
6 actually helps in identifying that clear line of demarcation
7 because the flat surface is dropping off instantly. Again,
8 that happens when you have very concentrated heating.

9 So if this had been subjected to a fire, what you
10 would have is all these conductors would be evenly tapered
11 to the point where they started to melt off. They would
12 slowly start -- almost like a pencil tip is what they would
13 look like. When you have a discharge like this, you know,
14 we actually develop a plasma. When you get that heat built
15 up, it very quickly expands the metal and thrusts it
16 outward. And then once the electrical discharge is stopped,
17 there is no more heating. So the time it takes to heat up
18 this entire mass isn't there. So you have a very finite
19 location of damage. And that is exactly what we have here.

20 Now, if we go back to the previous photograph, we
21 can see again now that we're looking at all these
22 conductors. And these conductors -- after we packaged up
23 our evidence, one thing we want to do is protect all of
24 this. And so we wrapped it all up. As we were wrapping
25 this up to bring it together to protect those ends, we
26 noticed there's a gap; that those wires did not touch their

1 counterparts. There is actually a significance amount of
2 material missing.

3 Q. For the record, you are holding up to the jury your
4 thumb and your forefinger approximately half to
5 three-quarters of an inch apart.

6 A. Yeah, that sounds about right.

7 Q. So that approximately a half inch to three-quarters
8 of an inch gone of these strands?

9 A. And there is more material missing then that
10 because we also have portions that are just no longer in
11 existence. You can't see from the backside, but that strand
12 is broken off completely. So that accompanied with the
13 evidence we found on the ground, I think there is a nexus
14 there. I think the point of these two items might have been
15 together at one point.

16 Q. So that is where I want to go. You said "Coupled
17 with the evidence I found on the ground." Now we can go
18 back to the SOA photographs, the specific origin area
19 photographs and specifically origin Number 2 where we saw
20 that little tiny piece of metal.

21 Describe what you're talking about when you say
22 "Coupled with what we found on the ground."

23 A. Can we go back to that photograph. It might
24 actually help.

25 Q. Sure.

26 A. I know it's not 25.

1 So I know it's not really great for size reference,
2 but this piece of material is about a centimeter to half a
3 centimeter in length. It's a very small piece of material.
4 There are certain things that I noticed about this piece of
5 material. And you can't see the other side because I didn't
6 photograph it upside down. I photographed it as the native
7 position as I found it. But we have a very finite point
8 here where it goes from being nice straight steel to a clear
9 line of demarcation again. There was some deformation right
10 at this apex of the turn right there and even more along the
11 approach to the apex which tells me that this whole piece of
12 material at some point in its entirety was influenced by
13 heat. In other words, it had been deformed by heat.

14 There is no process that I'm aware of that causes
15 this expansion in a localized area other than the fire that
16 allowed it to basically as it's melting --

17 You guys heard of surface tension of water. Almost
18 all materials that have liquid have surface tension
19 including molten metal. So if you have a piece of metal
20 that is molten, it wants to form a bead or a ball just like
21 water does in a droplet. That's the process that is
22 happening here. So it's actually widening like trying to
23 form that ball or that bead. And that out of all the
24 evidence that we have collected this is my most competent
25 piece of evidence that it was likely from our transposition
26 conductor.

1 Q. Other than that small piece of wire that is shown
2 in the photograph from 25, did you find any other wiring or
3 what appeared to be wiring on the ground?

4 A. Yes. We found actually quite a bit of it. Some of
5 it was partially buried. Some of it was on top of the
6 surface. We did find two segments of wire within SOA one.
7 Those wires were significantly larger in size. And because
8 of their degree of damage, we're not sure how long they were
9 there anyway because those were in an area that did sustain
10 a little bit more heat and were not as defined as this
11 particular piece.

12 Q. So we have kind of walked through the origin
13 investigation. We have kind of walked through the cause
14 investigation. What was done prior to finishing your
15 investigation up there at origin -- or at tower 27/222 to
16 document where all this evidence was found?

17 A. We do a couple things. Number one, we did have an
18 electrical engineer come up and examine some of the evidence
19 before it was collected so he could see it in its native
20 position and we also had a -- we call it a LiDAR team. It's
21 light and distance ranging is what it's called. It's
22 acronym to LiDAR because what they're doing is this team
23 comes in. It's a Cal Fire survey team. We ordinarily use
24 them for surveys of property and realized that they'd fit
25 very well into our investigations for identifying and
26 mapping items down to half a centimeter. So that's all

1 their measurements. They came and they scanned our sites.

2 And if we can, can we look at --

3 Q. That's where we're going to.

4 A. Fifty-five.

5 Q. Once the LiDAR team comes in and does their scans,
6 are they able to generate those scans into a diagram for
7 you?

8 A. Yes, they can.

9 Q. And as part of that scan that we've talked a lot
10 about today and we'll talk a little bit more in a second
11 about all of your different colored flags, do the LiDAR
12 scans also document the locations of the flags?

13 A. Yes, they do. And they use what is called Trimble
14 GPS Technology which is, I mean, commercial grade GPS. For
15 those of you who aren't familiar with Global Positioning
16 System, it's identifies location.

17 Normally Global Positioning Systems are good for up
18 to six to nine yards, somewhere in there, where a Trimble
19 grade takes it down to half a centimeter which is extremely
20 accurate to both horizontal locations but also vertical
21 distance in relationship to the ground.

22 And so this is --

23 Q. Well, first of all, let's stop right there. You
24 have in front of you in your hands what is marked as Exhibit
25 Number 55.

26 A. Yep.

1 Q. Can you explain to us what is Exhibit Number 55?

2 A. Exhibit 55 is an end product from the LiDAR team.
3 So after they collect all their data, they're able to put it
4 into a computer and generate this, for lack of better term,
5 map.

6 Q. Okay.

7 A. This map is able to identify -- these lower three
8 red lines are the three conductors from the Caribou-Palermo
9 line. In the very center of the map we have a square with
10 triangles on either side. That is the representation of the
11 Caribou-Palermo 27/222 tower.

12 Around it we see all the flags or indicated flags
13 that I put on the ground. And it's -- the resolution isn't
14 great here. But here we had the yellow, which appears to be
15 more orange in this printing. And we have reds and the
16 blues, all my greens, and my -- what we call the debris
17 field. And so these triangles down here at the bottom,
18 these are the reference spikes that I set. Two and three
19 are reference spikes that the LiDAR team set. Here is my
20 evidence. Here is evidence one and evidence two. There is
21 evidence three. GOA number three.

22 Q. SOA. Specific or general?

23 A. I'm sorry. Specific origin. Yeah, number three is
24 over here and here is our debris field. So we have specific
25 origin number one, specific origin number two, specific
26 origin number three, and here is our debris field.

1 Q. Okay. As you're pointing to them, we need to
2 reference those for the record so Madam Court Reporter can
3 get them down exactly where you're pointing to them on the
4 screen. So if we're on the exhibit --

5 A. So on the screen -- my middle screen, this is
6 identified as E-1 and E-2. That would be specific origin
7 area one. On the screen where it says E-3 that is specific
8 origin area two. And directly off what would be the south
9 corner -- southwest corner of the tower is where
10 specifically origin area number three would be.

11 Q. Now, we talked -- and just to make sure we've got
12 all this straight, the various times during the day, we'll
13 go over it one more time. The colors. What does each of
14 the colors mean?

15 A. So that is a great view to talk about it. So since
16 I always start in the advancing vector, I will start over
17 here. As I was driving in -- and it's hard to see here.
18 Actually, it's not even in the screen. But Camp Creek Road
19 kind of runs through here and basically follows the contour
20 line. It's kind of out of shot here, but I came in here.

21 These are all the advancing vectors as I was
22 walking up the hill. And I came up the steepest side
23 because I like to work hard. That is where I started
24 setting all my flags. And I was identifying all these
25 advancing vector indicators. Actually, excuse me. I
26 actually came up over on this side and first came around and

1 realized I was getting the backing vector, came back around.

2 This is the serpentine counter clockwise approach I
3 was making okay. So we're going back and forth working my
4 way up and working my way around here. Here is the
5 advancing vector again. There is some lateral. Got to the
6 point where I got to this roadside. These are the blue
7 backing vectors we saw along that walking trail. All these
8 greens down here next to reference point number 20 on the
9 diagram is where we took a lot of photographs looking up at
10 the tower. And we got back here and we saw the photographs
11 of a lot of vegetation that was still intact looking west
12 past the tower.

13 So once you identify and can understand "Okay.
14 Backing lateral and progressing," you can really -- and that
15 is why these flags are such a great tool for us. It really
16 shows us how the fire started here and progressed out. And
17 the flags kind of give you that visual reference. It kind
18 of puts the story into place. Because I have no way of
19 seeing 360 degrees all at once around an incident. I have
20 to use these flags as a tool to help me identify, you know,
21 the flow.

22 And it's really a matter of me -- I'm looking down
23 at the ground and I'm setting flags. And I'm not even
24 really paying attention to where -- you know, my
25 relationship with the other flags. I'm just setting this
26 flag right now. Once it's set, I move on. And I'm just

1 look for the next place to set a flag. And then when it's
2 all done I stand back and then I look. So with what I see
3 it's pretty clear how the fire progressed.

4 Q. All right. A couple other things just to make a
5 note of this. We see these black lines kind of through
6 here. And some of them have numbers on them, prints on the
7 far left 2075 and then the next one to the right is 2100.

8 Can you explain what those are, what they mean.

9 A. Yes. These are contour lines. In this particular
10 diagram, we have 25-foot interval contour lines. Basically,
11 it's showing the elevation. So if you can imagine each one
12 of these lines is a slice of the topography, the horizontal
13 plane. It kind of gives an example of what the terrain
14 looked like. So these dark lines are separated by 25 feet
15 of distance. And I could see that there's five smaller
16 lines -- sorry, four smaller lines in between for a total of
17 five intervals between 25. So each one of these
18 lighter-shaded lines represents five feet.

19 Q. Okay. So red is the advancing fire; correct?

20 A. Correct.

21 Q. Yellow is the lateral movement of the fire?

22 A. Correct.

23 Q. And blue is the backing fire?

24 A. Correct.

25 Q. Now, can we use the drawing tool over there and can
26 you give me the specific origin area one, specific origin

1 area two, specific origin area three, and the direction of
2 the wind.

3 A. So for the record, I'm identifying specific origin
4 area one in black, two is in blue, and three is in green.
5 The wind --

6 Q. Probably use the highlighter to make the wind.

7 A. So the wind is running this (indicating) direction
8 generally speaking. That was the general direction of the
9 wind contour lines. The topography always had an influence,
10 but it was a hard easterly wind. Hard is not a good
11 descriptive word. It was an easterly wind.

12 Q. Coming out of the east?

13 A. Yes.

14 Q. The insulator pieces that we talked about earlier
15 when we saw several photos and you talked about the
16 insulator being in line with everything, can you identify
17 for us on Exhibit Number 55 where the insulator string or
18 the insulator pieces were.

19 A. Yes. Right here (indicating). So this is
20 generally where the insulator debris field was, which again
21 taking into consideration the debris, the wind, and the
22 topography it always kind of fits in the line there.

23 Q. I -- just to make sure it's absolutely clear, we
24 have talked about the right phase and the left phase. Can
25 we indicate on the tower structure itself the phases.

26 A. So in the electrical engineer field we use the phi

1 symbol for phase and the middle phase.

2 Q. All right. So we have right phase, middle phase,
3 left phase. And it was the left phase where the hook
4 failed; correct?

5 A. Yes, it is.

6 Q. And the left phase that was found with the inverted
7 insulator string and the broken hook?

8 A. Yes, it is.

9 Q. All right. You can return to the witness stand. I
10 don't think we're going to need that any more.

11 All right. A couple things to clean up real quick.
12 You used the term "debris field."

13 A. Yes.

14 Q. What debris was found?

15 A. Ceramic insulation from what I believe to be the
16 concentric circles of the insulator bells.

17 Q. Now, we were talking about the arcing and what
18 happened probably when the energized conductor came into
19 contact with the steel structure. And we looked at the
20 pictures of those contact points and the pitting and the
21 other damage. And you used the term "molten metal."

22 A. Yes.

23 Q. Did you search below in the areas of origin of the
24 fire -- the specific origin areas of the fire for molten
25 metal?

26 A. I looked for metal. I didn't expect there to be

1 still molting.

2 Q. Okay. And what is the different metal and molten?

3 A. Molten metal is high temperature, has viscosity to
4 it whereas regular metal is not. It's in a solid form.

5 Q. Molten would indicate it's liquified?

6 A. Yes.

7 Q. Did you find any other metal in any of the specific
8 origin areas?

9 A. Other than the piece I identified so far, no.

10 Q. The hook off the left phase that looked to have
11 appeared to have failed and was broken we have compared with
12 the hook right next door, the hook from the right phase?

13 A. Yes.

14 Q. Do you know what the apparent missing portions of
15 the hook look like?

16 A. Yes.

17 Q. Did you ever locate the missing portion of the
18 hook?

19 A. Too exhaustion.

20 Q. What do you mean by that?

21 A. We had everybody from our investigation team up
22 there looking for that missing portion of the hook. We
23 both -- I did an examination -- metal detector examination
24 and I observed the PG&E employees also looking for that
25 missing piece of metal during the evidence collection day.

26 Q. So it was never found?

1 A. To my knowledge, no, it's not been found.

2 Q. All right. Now, the final question. Based upon
3 everything you know right now to date, do you have an
4 opinion as to what started the fire underneath 27/222?

5 A. Yes, I do.

6 Q. And what is that opinion?

7 A. In my professor and in my discipline we always look
8 for what' called a -- the most competent ignition source.
9 My original hypothesis included the possibility that the
10 hook failed, came in contact with the transposition tower,
11 an arc occurred and allowed hot metal to fall to the ground.
12 The ensuing metal that was hot came in contact with the
13 receptive fuel bed, which is the material on the ground, and
14 started a fire.

15 I was not able to disprove that hypothesis. And
16 the other hypotheses that I had which included, you know,
17 trains and everything else, they are not competent ignition
18 sources. The only competent ignition source on that hill
19 that day was the energized conductor of the Caribou-Palermo
20 115 KV line.

21 The only way that could have happened was when the
22 insulator hook broke, fell, and came into contact with the
23 tower and allowed hot material to fall in the receptive fuel
24 bed and started the Camp Fire.

25 Q. Do we see evidence of that in the tower struck
26 itself?

1 A. Yes, Sir.

2 Q. Does the fact that PG&E reported a problem on that
3 line also come into play in your opinion?

4 A. Yes, it does.

5 Q. How so?

6 A. The Cal Fire Butte Unit Oroville Emergency Command
7 Center received a first 9-1-1 report at approximately 6:29
8 in the morning. That came directly from a Pacific Gas &
9 Electric facility. It was radioed in from a Pacific Gas &
10 Electric employee who didn't have cell service to call 9-1-1
11 himself. He reported that fire and said it occurred
12 directly -- he reported it as being under a Caribou-Palermo
13 transmission line. That coupled with the evidence that we
14 found coupled with their reports saying they had an event
15 where they lost power and had a discharge at 6:15 again
16 supports my hypothesis. It solidifies it along with the
17 photographs from witnesses including the first responding --
18 excuse me, the first known witness which was the PG&E
19 employee and his photograph.

20 Q. That's the Caltrans employee?

21 A. I'm sorry. Excuse me. Yes, the Caltrans employee
22 was -- excuse me. Yes, the Caltrans employee was the first
23 one. His photograph showed -- the photograph showed the
24 fire directly under the tower. All this stuff put
25 together -- my origin investigation, my cause investigation,
26 and all the support evidence that tells me that my

1 scientific method was sound leaves me no other opinion to
2 have.

3 Q. And that opinion is that this fire was caused by
4 the failure of the hook on 27/222?

5 A. Yes.

6 MR. NOEL: I have nothing further.

7 Do any of the grand jurors have any written
8 questions? If you'd give them to the Sergeant at Arms to
9 give to the foreperson to review with us.

10
11 [DISCUSSION OMITTED.]
12

13 MR. RAMSEY: What we will do right now is just a
14 bit of cleanup. This is Exhibit 55. And Captain Kluge --
15 he had made various markings on this in front of the jury as
16 an explanation. And it should be noted that he put in terms
17 of the debris field in which he put basically red oblong
18 circles around where the green dots are, which were -- the
19 green dots were items of the interest.

20 And he also made note as to where the specific
21 point of origin was. And that was in terms of the number
22 one point of origin would be where we see on this diagram
23 just to the right of the placement of E-2 where I just put a
24 red dot there unfortunately with my hand. But it's to the
25 right of the affected tower in the small circle saying that
26 that would be the specific point of origin on the parts of

1 this surveyor diagram that is noted as E-2. And for a point
2 number three -- or pardon me. Specific point of origin
3 number two it's around a green dot that is on the surveyor's
4 map as E-3. And then for number three, it would be
5 basically a small circle -- number three specific point of
6 origin would be to the right lower corner of the affected
7 tower.

8 The three lines or conductors that come on the
9 diagram Captain Kluge has noted it's the left and then using
10 the word or the symbol for phi. So the left phi is the
11 lower of the lines, the middle line is M-5 is the middle
12 phase, and the right phase would be the upper line on the
13 affected tower. There is a yellow arrow that shows the
14 direction of the wind basically from an easterly to a
15 western direction.

16 MR. NOEL: Can we save that?

17 MR. RAMSEY: We can but, I don't know how.

18 MR. NOEL: Successfully saved. All right. Now,
19 how do we get back to where we were?

20 MR. RAMSEY: You've done it now.

21 MR. NOEL: All right. So we've saved that. And a
22 good point was made with all the drawing on that. We will
23 have that marked later on as 56-A so you can keep it in the
24 record.

25 All right. Now, we are going back to the markings
26 on the "B." We have the broken hook here as it was found

1 hanging in the -- in the tower showing the raised "B." And
2 the question is does the raised "B" without the circle "B"
3 and the broken C-hook indicate that the C-hook in question
4 was made before 1921?

5 THE WITNESS: I wouldn't be able to answer that
6 specifically. I was not working in the foundry to know
7 specifically that that was the absolute time that that
8 happened. The only thing that I was able to reduce from
9 basically doing Internet searches and then the drawings that
10 we had is I know the range that these were identified.
11 Beyond that being able to identify the year in which this
12 was made or specific parameters in which this specific hook
13 was made I wouldn't be able to answer that question.

14 MR. NOEL: And I am handing the question back to
15 madam foreperson to mark it and document it.

16 Who is responsible for maintaining Camp Creek Road
17 where the fire started, if you know?

18 THE WITNESS: It's my understanding that that is a
19 county maintained road. Who has the ultimate financial
20 responsibility I don't know.

21 MR. NOEL: And again, I'm handing this to madam
22 foreperson.

23 Have you ever seen a fire move as fast as you saw
24 the Camp Fire moving?

25 THE WITNESS: That's a tough question to answer. I
26 assume by fast you're talking about the rate at which it

1 spread. After a relatively long career I wouldn't be able
2 to say specifically that I have seen a fire -- I wouldn't be
3 able to answer that question with any type of accuracy
4 unfortunately. I'm sorry.

5 MR. NOEL: I guess see if I can summarize this up.
6 The speed with which this fire moved from its starting
7 location at 27/222 and just a couple hours later hitting the
8 town of Paradise, is that in your experience normal.

9 THE WITNESS: No, that's not a normal phenomenon.
10 We've had many large fires throughout the North State and
11 all of California, and we do have fires that move quickly.
12 We have fires that will take individualized runs that are
13 fast and other runs that are slow.

14 That's the same thing that happened in the Camp
15 Fire. Some runs -- when I say a run, I'm referring to, you
16 know, a specific, you know, timelines for the fire, times
17 where it moves very fast and there's some times where it
18 moves very slowly. It's called ebb and flow. There's give
19 and take on the progression.

20 So I can say that -- and I'd have to confirm this,
21 but I believe this is in terms of acreage in a single
22 burning period, I think this is the -- the top fire for the
23 amount of acres burned in a single burning period. But I'd
24 have to confirm that.

25 MR. NOEL: If you know, what is the distance
26 between the area -- the general area of origin and the

1 general origin area of the Camp Fire under 27/222 and the
2 town of Paradise?

3 THE WITNESS: I would have to refer to a map to get
4 the exact distance. I -- knowing the area -- and this would
5 be a ballpark -- I' say it's about five to six miles from
6 the outer edges of Paradise in that direction.

7 MR. NOEL: What is between the general origin area
8 under tower 27/222 and the town of Paradise?

9 THE WITNESS: Community of Concow.

10 MR. NOEL: Do you know how far the distance between
11 the eastern edge of Concow and Concow Road specifically the
12 intersection of Concow Road and Rim Road and the tower
13 27/222?

14 THE WITNESS: I believe it's just over two miles.

15 MR. NOEL: If you know, could the fire itself have
16 caused the broken insulator string?

17 THE WITNESS: That was a hypothesis that we had.
18 We absolutely examined that possibility. There's no
19 evidence that I could see on the hook itself that lends me
20 to believe that that hook was subjected to any type of heat.

21 MR. NOEL: The next question was in the photos of
22 the ground at the base of the tower in question -- and I
23 pulled up on the board here in front of you the photograph
24 marked as Exhibit 8 -- where is the scorching?

25 THE WITNESS: May I approach?

26 MR. NOEL: Absolutely.

1 THE WITNESS: And just to confirm, we're talking
2 about scorching on the tower?

3 MR. NOEL: Yes.

4 THE WITNESS: Okay. And I -- for specifics we're
5 talking about the scorching that was kind of an "S" pattern?
6 There's several points of scorching.

7 MR. NOEL: All the scorching. Was it all in
8 different areas of the tower or it was all in one?

9 THE WITNESS: And if I'm not on point here, please
10 let me know. The majority of the photos that we had that
11 showed the scorching or the spot burning around it or the
12 "S" pattern that you saw on the one phase, it was all in
13 this (indicating) area right here. So the area I'm pointing
14 to is basically directly south of the hanging -- or I'm
15 sorry. Right here (indicating).

16 Can you zoom in?

17 MR. NOEL: Yes, I can zoom in.

18 THE WITNESS: There we go.

19 MR. NOEL: Nope. Can't zoom in at the same time.

20 THE WITNESS: So all those photographs -- obviously
21 all different perspectives, different points of view -- were
22 all done in this (indicating) area here. And so what I'm
23 pointing to is the one -- basically it's right at the second
24 horizontal crossarm of the Caribou-Palermo 27/222 where it
25 meets with the southeast corner of the tower.

26 Does that make sense? So we're looking at this

1 area here (indicating). Now it works.

2 MR. NOEL: Is it better in this area up here?

3 THE WITNESS: It's this area right here
4 (indicating).

5 MR. NOEL: Right. Okay.

6 THE WITNESS: This is the first on this phase.
7 We've got a crossarm down here, and that is the first
8 crossarm that I see on this phase. Correct. This one here.

9 MR. NOEL: Oh, okay. Now I see.

10 THE WITNESS: It is right within this crossarm
11 here? This is where you saw all of our contact places.

12 MR. NOEL: And that is basically where we can see
13 the conductor -- the jumper conductor in contact with the
14 tower in the photograph?

15 THE WITNESS: In this photograph, yes.

16 Does that answer the question?

17 GRAND JUROR NUMBER FOUR: Can I -- I'm the one that
18 wrote the question. And I'm simply saying --

19 MR. RAMSEY: Write it down.

20 MR. NOEL: Yep.

21 MR. RAMSEY: If you can.

22 GRAND JUROR NUMBER FOUR: I'm sorry?

23 MR. RAMSEY: You've got to write it down, if you
24 can.

25 GRAND JUROR NUMBER FOUR: Oh.

26 MR. RAMSEY: If you need clarifying.

1 GRAND JUROR NUMBER FOUR: No. It's okay. Close
2 enough.

3 MR. NOEL: Sir, do you want your paper with the
4 questions back to write it?

5 GRAND JUROR NUMBER FOUR: No. That's fine.

6 MR. NOEL: The other questions on here is what was
7 the time at which the City of Paradise was ordered
8 evacuated?

9 I'm going to skip that. I think that will be for
10 another witness. I don't think that's within Captain Kluge.

11 And I think this one -- how old are the components
12 that failed? That would be the C-hook. That's good.

13 THE WITNESS: That's a good question. We are still
14 trying to seek out that information. We have not yet
15 confirmation on the exact age or installment date of that
16 specific piece of equipment. So I do not have a record of
17 the installment date of that particular equipment.

18 We have evidence that work has been done on the
19 tower in the past and even evidence that there was work done
20 at that specific point of contact. Because something at
21 some point changed. We know that. But when that happened
22 and whether or not equipment was replaced or reused, we
23 couldn't know. We don't know. We don't even know if this
24 has been sitting in a warehouse for 20 years before they
25 used it or 40 years before they used it. We don't know. We
26 don't have a record of it.

1 MR. NOEL: Now, you brought up a good point as a
2 good final follow-up question on there. There is still
3 stuff that you don't know; correct?

4 THE WITNESS: Yes.

5 MR. NOEL: And there is evidence that's being
6 examined, being analyzed, being tested by experts?

7 THE WITNESS: Correct.

8 MR. NOEL: You mentioned metallurgists?

9 THE WITNESS: Electrical engineer.

10 MR. NOEL: Electrical engineer, other people. And
11 we talked a minute ago about your conclusion, your opinion.
12 But the question was based upon -- at this moment in time
13 based upon everything else.

14 THE WITNESS: And what I know right now based on
15 the facts that I have.

16 MR. NOEL: Could that opinion change in the future?

17 THE WITNESS: Of course. There's always -- I don't
18 know what would do it. But if something was brought to my
19 attention that disproved my hypothesis, then yes, that would
20 change my opinion. And we had reexamined the evidence and
21 we had continued with our scientific process, which is a --
22 honestly scientific process is a living, breathing thing
23 figuratively speaking. It's ongoing. It's going to
24 continue to be ongoing as information comes in. It's going
25 to be, you know, compared and conclusions drawn from all
26 available information.

1 MR. NOEL: I believe that's all that we have unless
2 there's any further questions from the group.

3 Madam Foreperson, I would ask that the remainder of
4 the Exhibits 10 through 55 be entered into evidence and that
5 the questions -- the written questions from the jurors also.

6 A couple of clean-up questions real quick for you.
7 The Exhibits 27 through 39, those were the photographs that
8 you said were taken by the PG&E people?

9 THE WITNESS: I'd like to refer to those
10 photographs.

11 MR. NOEL: Go ahead.

12 THE WITNESS: Can you repeat those numbers for me.

13 MR. NOEL: They are 27 through 39.

14 THE WITNESS: Yes, 27 through 39 were taken by PG&E
15 personnel.

16 MR. NOEL: Right. And just to clean this up, those
17 photographs -- you were present when those photographs were
18 taken?

19 THE WITNESS: Twenty-seven through 29, yes, I was.

20 MR. NOEL: Thirty-nine?

21 THE WITNESS: Twenty-seven through 39, yes, I was.

22 MR. NOEL: And those photos were taken under
23 supervision and at your direction?

24 THE WITNESS: At my direction and under my
25 supervision.

26 MR. NOEL: And from your vantage point -- of

1 course, you couldn't be up there in the tower for reasons
2 that were explained. But those photographs accurately
3 depict the tower as it appeared to you?

4 THE WITNESS: Yes.

5 MR. NOEL: And some of the photographs were taken
6 as things were being taken off. So things were changing in
7 the tower, but it's still accurately depicting the tower?

8 THE WITNESS: Yes, they are.

9 MR. NOEL: And finally, 40 through 54, which is the
10 photographs that were taken by Captain Hillskotter. And
11 again, you were present when those photographs were taken?

12 THE WITNESS: Yes. I was present for all of those.

13 MR. NOEL: And those photographs also accurately
14 depict the items depicted?

15 THE WITNESS: Yes, they did.

16 MR. NOEL: Now I have nothing else. And we will
17 ask that the exhibits be entered into evidence.

18 MR. RAMSEY: Would that be acceptable to the
19 foreperson that they be received into evidence?

20 GRAND JURY FOREPERSON: Yes.

21 MR. RAMSEY: And then we'll ask that the foreperson
22 then sign each of those.

23 MR. RAMSEY: And also the photos.

24 GRAND JURY FOREPERSON: Oh.

25 [Exhibits 10 through 55
26 received into evidence.]

1 MR. RAMSEY: And as the foreperson is doing that,
2 we'd also ask that Captain Kluge be released with this
3 (indicating) admonition.

4 GRAND JURY FOREPERSON: Captain Kluge --
5 Captain?

6 THE WITNESS: Yes, Ma'am.

7 GRAND JURY FOREPERSON: Kluge. Sorry. You are
8 released with -- with -- with an admonition that the grand
9 jury proceedings and investigations are secret. You are
10 therefore admonished on behalf of the Butte County Superior
11 Court and this grand jury not to disclose to any person the
12 following: The fact that you received a grand jury
13 subpoena, the fact that your appearance before the grand
14 jury, any questions asked and any responses given during
15 your testimony before the grand jury, any other information
16 concerning the nature or subject of the grand jury
17 investigation and that you acquired during your grand jury
18 appearance.

19 This admonition does not apply to information that
20 you give your attorney. This admonition continues until the
21 occurrence of the one of the following three events: The
22 transcription of your grand jury appearance is made public,
23 a court authorizes its disclosure or disclosure is otherwise
24 authored by law. Violations of this admonition are
25 punishable as contempt of court.

26 Do you understand this admonition?

1 THE WITNESS: I do.

2 GRAND JURY FOREPERSON: Thank you so much.

3 THE WITNESS: Thank you. Have a good day.

4
5 [DISCUSSION OMITTED.]

6
7 [Grand Jury adjourned at 12:21 p.m.]

8 --oOo--
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COURT REPORTER'S CERTIFICATE

This is to certify that I, Lisa McDermid Welch, a Certified Shorthand Reporter of the State of California was present at the time and place the foregoing grand jury proceedings were had and taken in the within matter; and that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings; and afterwards caused my said shorthand writing to be transcribed into typewriting; and the foregoing pages, beginning at the top of Page 1 to and including Page 120 hereof, constitute a full, true, accurate, and complete record of the proceedings.

DATED: This 6th day of June, 2022.

Lisa McDermid Welch

LISA MCDERMID WELCH, CSR, RPR
CSR LICENSE NO. 10928

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

BCSC-2019-GJ-01

REDACTED
**CERTIFIED
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REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, APRIL 23, 2019

VOLUME 4

OROVILLE, BUTTE COUNTY, CALIFORNIA

JENNIFER L. HUNT, CSR 10735, OFFICIAL COURT REPORTER

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OROVILLE, BUTTE COUNTY, CALIFORNIA

TUESDAY, APRIL 23, 2019

8:30 a.m.

(Confidential Grand Jury Proceedings)

-oOo-

[ROLL CALL OMITTED.]

[DISCUSSION OMITTED.]

MR. NOEL: Call Mr. Taylor, Colton Taylor.
Right up there.

(GRAND JURY FOREPERSON swears in witness.)

COLTON TAYLOR

having been called as a witness in
the matter now pending, having been first
duly sworn, testifies as follows:

THE WITNESS: I do.

GRAND JURY FOREPERSON: Thank you. You may
have a seat.

EXAMINATION

BY MR. NOEL

Q. Mr. Taylor, by whom are you employed?

A. I work with Cal Trans.

Q. How long have you been working with Cal Trans?

1 A. About eight months now.

2 Q. What do you do for Cal Trans?

3 A. I just mainly flag, and I'll help move
4 equipment and clean up.

5 Q. Are you assigned to a particular area with Cal
6 Trans?

7 A. The Pulga yard.

8 Q. How long have you been assigned to the Pulga
9 yard?

10 A. The whole eight months.

11 Q. November 8th, 2018, were you scheduled to work
12 that day?

13 A. Yes, I was working.

14 Q. Do you recall what time you were supposed to
15 report to work that day?

16 A. I was starting work at 7:00, but I showed up
17 about 30 minutes early.

18 Q. So about 6:30 in the morning?

19 A. Yeah.

20 Q. And just in general, what area of the county do
21 you live in?

22 A. I live in Oroville.

23 Q. So when you're working, you drive from your
24 home up into the canyon?

25 A. Yes.

26 Q. Is there a route that you take normally?

1 A. I just take Ophir Road to the highway and then
2 take it up to Highway 70.

3 Q. Okay. So you take Highway 70 up the canyon to
4 Pulga?

5 A. Yeah.

6 Q. What time do you generally leave, leave home?

7 A. About 5:45.

8 Q. How long does the drive usually take you?

9 A. About 40, 45 minutes.

10 Q. So on November 8th, 2018, you said you arrived
11 at the Pulga Cal Trans station around 6:30 in the
12 morning?

13 A. Yes.

14 Q. As you were driving up the canyon on Highway 70
15 that morning, did you notice anything unusual?

16 A. Yes. As I was passing the Pulga Bridge, I
17 noticed like a glow behind some of the trees. And so
18 when I pulled up into the Pulga yard, I noticed that the
19 -- there's a little fire over there on the hill.

20 Q. Okay. So let's back up. As you're going up
21 Highway 70, as you're getting ready to come across the
22 Pulga Bridge, you said you noticed a glow in the trees?

23 A. Yes.

24 Q. In terms of the direction that you were
25 traveling, that you were driving on Highway 70, where was
26 the glow?

1 A. Well, I was driving east up Highway 70, so the
2 glow was on the left-hand side, on the other side of the
3 river. Is that what you mean?

4 Q. Okay. I'm just trying to get acclimated. So
5 the other side of the river, the side on which the Cal
6 Trans station is located? Or the side, the other side of
7 the river away from the Cal Trans station?

8 A. The opposite side of the Cal Trans.

9 Q. Okay. So are you familiar with the community
10 of Pulga?

11 A. I know it's there, but I've never been up
12 there.

13 Q. Was the glow on the side of the river with the
14 community of Pulga?

15 A. Yes.

16 Q. So as you're driving up and going across the
17 bridge, you see this glow?

18 A. Yeah.

19 Q. You keep going, you get to the Cal Trans
20 station, and then what do you see?

21 A. I just see a small fire around one of the
22 towers and then -- yeah.

23 Q. When you say "one of the towers," what are you
24 talking about?

25 A. It was one of the electric towers. What are
26 they? It was just -- yeah, a small glow around one of

1 the bases of the towers.

2 Q. Okay. Same area that you saw the glow earlier?

3 A. Yeah.

4 Q. Now, this is about 6:30 in the morning?

5 A. Yes, around 6:30.

6

7 (Grand Jury's Exhibit 5 was marked for identification.)

8

9 Q. In front of you, you have a photograph that's
10 marked as People's as Exhibit No. 5 for identification.
11 Can you pick that up? On the back there should be a
12 white evidence tag. Is that Exhibit No. 5?

13 A. Yeah.

14 Q. Do you recognize that photograph?

15 A. Yes. This is the photo I took a couple minutes
16 after I got there.

17 Q. Okay. So you took the photograph Exhibit No.
18 5?

19 A. Yes.

20 Q. And you took that photograph sometime shortly
21 after 6:30 a.m. on November 8th, 2018?

22 A. Yes, I did.

23 Q. And where were you located when you took the
24 photograph?

25 A. Right out front of the Cal Trans office.

26 Q. Now, I've put a copy of that photograph up on

1 the board so the jurors can see what you're looking at.
2 Why don't you describe to us what we're looking at in
3 this photograph.

4 A. Well, you can see that the fire's on the hill
5 above the opposite side of the river. And then when I
6 first, first got there, it was closer to the right tower
7 of the three. So it was like more centered around there.
8 But then I was -- I didn't take the picture until like a
9 couple minutes later, and it grew a little bit.

10 Q. Okay. So when you're talking about the right
11 tower of the three, you're talking about --

12 A. Yes, that one.

13 Q. That one.

14 Let's see if I can make this work. Come on.
15 There it is.

16 So you're talking about that tower down there?

17 A. Yes.

18 Q. And you said when you first arrived at the Cal
19 Trans station the fire as even smaller?

20 A. Yeah, it was smaller and closer to that one,
21 but then I didn't take a, the picture until about up to
22 five minutes later. I'm not completely sure.

23 Q. Okay. Did you continue to watch the fire after
24 taking the photograph?

25 A. Yes.

26 Q. How long did you watch it?

1 A. I watched it until the work started, so about
2 7:00. But then I was also working in the yard all day,
3 so I got to see it grow and -- yeah.

4 Q. Describe for us what you observed over the
5 course of the day.

6 A. Well, the fire just continued to get bigger and
7 bigger. And then there are little spots that like the
8 wind would catch the fire and push it faster, because
9 that was an incredibly windy day like more so than usual.
10 And so the fire just kept growing, and then it covered
11 the whole face of the mountain on the other side of the
12 river and then just started traveling west and then just
13 kept going.

14 Q. How long had you been working up there at the
15 Pulga station on November 8th?

16 A. I've been working since about September 11th.

17 Q. Always at the Pulga station?

18 A. Yeah.

19 Q. You said that that day was incredibly windy.
20 How did, that day, the wind compare to what you normally
21 saw up in the canyon?

22 A. It was more windy than usual. That was one of
23 the windiest days I've experienced there, at least in
24 that yard.

25 Q. Now, as you're watching this and taking this
26 photograph at 6:30 a.m., or around 6:30 a.m., did you

1 call 9-1-1 to report the fire?

2 A. I don't get any phone service anywhere in that
3 yard, so I did not.

4 Q. Okay. Was there any, anybody else in the yard,
5 any --

6 A. At -- when I first showed up, my co-worker was
7 there, but he was sitting in his car not paying attention
8 because he said he didn't notice the fire was there. And
9 I guess he showed up a couple minutes before me. And
10 then, yeah, I took the picture, and I pointed it out to
11 him. But -- yeah, it wasn't until maybe like 15 minutes
12 later or 10 minutes later that other people started
13 showing up. The lead worker was already there, but he
14 had taken off.

15 Q. I understand you didn't have cell phone
16 service. Were there landline phones available?

17 A. They were in the building, but the building was
18 locked at the time.

19 Q. And you didn't have the key?

20 A. No, I did not.

21 Q. So you had to wait for the boss to get there?

22 A. Yeah.

23 Q. All right.

24 MR. FOGG: Marc, I just want to clarify on the
25 record that you marked the right tower?

26 MR. NOEL: Right.

1 Q. (By MR. NOEL) Let's just clarify on the
2 record, the photograph you have in front of you, the
3 photograph being displayed on the board here, in the
4 center of the photograph we see three towers; correct?

5 A. Yes.

6 Q. And it's the tower on the furthest right with
7 the fire just below it, in front of it, and above it,
8 that's the tower that you identified, that I circled,
9 that is where you first saw the fire?

10 A. Yes. It was closer to that.

11 Q. Yep. So as you first saw the, pulled into the
12 station and saw the fire up there, the fire was up tight
13 on the bottom of that tower?

14 A. Yeah.

15 Q. Okay. All right. I don't think I have
16 anything further of this witness.

17 Any of the grand jurors have anything?

18 MR. NOEL: All right. I think you're done.

19 THE WITNESS: All right.

20 MR. NOEL: Madam Foreperson, I would move No. 5
21 into evidence. That's one of the ones reserved from
22 earlier on.

23

24 (Grand Jury's Exhibit 5 was admitted into evidence.)

25

26 MR. NOEL: And I will walk him out and get the

1 next witness in.

2 Take one and pass these around.

3 (Off the record discussion.)

4 (GRAND JURY FOREPERSON swears in witness.)

5

6 STACER HARTSHORN

7 having been called as a witness in

8 the matter now pending, having been first

9 duly sworn, testifies as follows:

10

11 THE WITNESS: I do.

12 GRAND JURY FOREPERSON: Thank you. Have a
13 seat, please.

14

15 EXAMINATION

16

17 BY MR. NOEL

18 Q. Captain, by whom are you employed?

19 A. I'm employed with Cal Fire.

20 Q. In what capacity?

21 A. I am a captain in the Butte County Oroville
22 Emergency Command Center.

23 Q. How long have you been with Cal Fire?

24 A. Almost 22 years.

25 Q. What training do you have that qualifies you
26 for Cal Fire?

1 A. I have hundreds of certificates, stemming from
2 basic EMS to weeks, weeks' long academies.

3 Q. Walk us through your experience in 22 years as
4 Cal Fire; what you've done, the positions you've held.

5 A. I started in southern Butte County as a
6 firefighter in '97.

7 Prior to that, my first six years with Butte
8 County Cal Fire was as a volunteer. So I actually
9 started in '91 through '97, became career in '97 in the
10 Harts Mill Berry Creek station.

11 I promoted to engineer in 2000, and I left
12 Butte County and went to Grass Valley and worked at the
13 Higgins Fire District station in 2000 for a couple of
14 months in the late summer.

15 I came back to Butte County as a limited-term
16 engineer and went to Robinson Mill Station 54 up in
17 Forbestown. I spent the next three years there as an
18 engineer.

19 I then promoted to a Schedule A station in
20 Biggs as a permanent firefighter 2 in 2002. I spent most
21 of 2002 working in the Biggs station.

22 I came back to an engineer, permanent engineer,
23 in 2003, back to Robinson Mill.

24 I then moved over to a Schedule A station in
25 Bangor, and there I stayed almost four years, from 2004,
26 '5, '6, and into the spring of 2007. And then I promoted

1 to fire captain, which I currently hold my rank
2 currently. And when I promoted to captain, I had to
3 leave Butte County.

4 I went over to Tehama County and promoted to
5 the inmate fire crews that you guys have seen in the
6 area. So I stayed at the Valley View Conservation Camp
7 from 2007 to May of 2015, did almost ten years in fire
8 camp as a captain running hand crews on hundreds of
9 wildland fires.

10 And then in May of 2015 I promoted and left
11 camp and went to the command center, the ECC environment
12 that I currently hold now in Oroville. But I left Valley
13 View Conservation Camp to Tehama County ECC.

14 I did two years in Tehama County, then I
15 transferred back as a captain to the Oroville command
16 center in December of 2016. That is where I currently
17 stay.

18 Q. So you've been a captain in the, in the Butte
19 County ECC?

20 A. For two and a half years.

21 Q. Two and a half years. What does ECC stand for?

22 A. ECC stands for -- it's Cal Fire's version of
23 the Emergency Command Center. So command centers are
24 different from dispatch centers in such we have captains
25 that are able to make decisions based on types of phone
26 calls that we get, information that we're told, where

1 dispatch centers just take a call as it comes in. If
2 they get five calls in a row, even though the fourth call
3 is a higher priority, they send them out by call
4 priority, not life-saving priority. Command centers have
5 the ability to alter how those calls come in and which
6 ones go out first based on life, property, and
7 environment.

8 Q. Describe for us the Butte County Emergency
9 Command Center.

10 A. So the Oroville Emergency Command Center on a
11 typical summer day has four people assigned to it on any
12 given day, seven days a week, 24 hours a day.

13 So we have essentially a lead -- or if any of
14 you listen to scanners, the person you hear on the
15 scanner, that voice is the lead or the, what we call the
16 radio person.

17 Their support person is essentially the one
18 that answers the 9-1-1 calls as they come in, and they
19 process those calls by getting the location, getting a
20 name, getting a call back phone number, and why they
21 called 9-1-1, whether it be for EMS, fire, public
22 assistance, to help somebody, et cetera.

23 So as that person enters that call in our CAD,
24 which is the Computer-Aided Dispatch, that's what's CAD
25 stands for, then the radio, or lead, person opens that
26 call, dispatches that call, and the closest appropriate

1 resource and paramedics that go with it.

2 Then there's a position that I currently hold
3 today as the duty captain. So the duty captain
4 essentially is the one that controls the floor for the
5 day. You're the one that's making the decisions based on
6 the type of calls that you get, the type of information
7 that you're provided, and when we have multiple stations
8 that may be empty because they're on a call or on a house
9 fire that, where we need to move resources around to
10 busier stations. So the duty captain is the one that is
11 responsible for making those decisions, moving resources
12 from one area to the next, and backfilling those
13 resources for an emergency that's underway in the county.

14 We also are the ones that are calling the
15 region for resource updates, requesting additional
16 resources, or talking to our local duty chief to see what
17 kind of needs that the unit may need on his behalf.

18 So essentially it's the voice of the duty
19 captain, we speak for the county fire chief. That's how
20 that works.

21 In the last position that's available in the
22 summertime role is the aircraft person. So Cal Fire has
23 aircraft throughout the state. We have helicopters,
24 tankers, air attacks, private-call-when-needed
25 helicopters that we can hire on emergency basis. And in
26 that capacity as the aircraft person, you deal with the

1 region intercom. We are talking to northern region,
2 which is up in Redding. And we facilitate the orders
3 based on the needs of the, of the incident or the
4 incident commander that he's requesting as far as
5 tankers, helicopters, things like that. Then we would
6 process those orders and put them in the system of
7 record, which is our ROSS program that everything is
8 filled in and tracked that way. And we have access to
9 that at any given time.

10 Q. So the first person is the support person, they
11 answer the phones, take the 9-1-1 calls, and enter the
12 information into the CAD?

13 A. In a routine basis, yes. If just one phone
14 call comes in at a time, that support person would just
15 pick up the phone, talk to the caller, get those four
16 things that I described -- location, name, phone number,
17 what's wrong -- and then the call gets entered in CAD,
18 then the radio person would dispatch it.

19 Q. How is -- describe for us how the 9-1-1 system
20 works with relation to Cal Fire ECC?

21 A. So the 9-1-1 system is all tied together in
22 CAD. So the phone system basically looks like a computer
23 screen. So as calls come in, there's certain information
24 that autopopulates. So it's called an ANI/ALI -- auto
25 number of location, auto address location.

26 So if you call 9-1-1 from a house phone, a

1 landline, it prepopulates in CAD the location of that
2 emergency. Then our job as the call taker is to confirm
3 that location with the caller, get them to verbally state
4 it. We don't repeat it to them. They need to physically
5 tell us the address that they're at for the emergency.

6 Then once we confirm that information, there's
7 a process in CAD that pulls the information from the
8 phone system over to CAD into a screen. Then we get the
9 caller's name, we confirm the phone number that
10 autopopulates as well. And then once we okay it, it
11 drops in CAD live at every position in the command
12 center. And then that's when the radio person is able to
13 double click the call, it opens up, we confirm the
14 resources, then we hit the okay button, it dispatches it,
15 then we voice it out, which is what you hear on the
16 scanner.

17 Q. The calls themselves?

18 A. Uh-huh.

19 Q. When someone calls 9-1-1 from a landline phone,
20 how does that get to Cal Fire?

21 A. So Cal Fire is a secondary PSAP. And a PSAP is
22 a Public Service Answering Point. So when you call
23 9-1-1, everything goes to a primary PSAP, which is law
24 enforcement, whether it be Paradise PD, Oroville Police,
25 Butte County S.O., Oroville, Gridley, or sometimes they
26 wind up with Chico Fire, Chico PD as well.

1 So once the caller states, "9-1-1, what's your
2 emergency?"

3 "Well, I need an ambulance. My dad's having
4 troubling breathing."

5 "Okay. Hang on. I'm going to get to you Cal
6 Fire."

7 So then they transfer the call to us, if it's
8 in our jurisdiction. And then that's when our phone
9 rings usually from CHP, or S.O., Paradise, whomever, and
10 then we pick it up and then process that call.

11 Q. How about if somebody's calling from a cell
12 phone?

13 A. So somebody's calling from a cell phone, it's
14 essentially the same thing. It still goes to a primary
15 PSAP, and then once they deem that the caller is
16 requesting medical, or reporting a fire, or just needing
17 assistance by helping somebody up, which we do on a daily
18 basis. Somebody falls down, guy's a little overweight,
19 little lady that's there is elderly, she can't pick him
20 up, we show up, get him to his feet, put him back to his
21 chair, away we go.

22 So the cell phone is essentially the same way,
23 but all a cell phone will give us is a, like a lat-long
24 of the cell phone in the close proximity or the closest
25 ping of the tower. So that's when we really need to get
26 in depth with callers to confirm their location.

1 Q. What do you mean when you say lat-long?

2 A. So a legal description is a, it's degrees,
3 minutes, seconds. So it's a term in the fire service,
4 military. It's a way to get some of somebody's location
5 based off of a legal description. So it could be like 39
6 degrees, 21 minutes point 48 seconds, by negative 121
7 degrees, 48 decimal 56 seconds and so on. So we can put
8 that in CAD, and it will give us kind of a general
9 location based on what tower that that cell phone is
10 hitting off of.

11 Q. So the terms "latitude" and "longitude" are
12 shorthand for -- lat and long are shorthand for --

13 A. For latitude and longitude, yes.

14 Q. Latitude and longitude. And those are location
15 terms?

16 A. Correct.

17 Q. You also used the term "pinging" off of the
18 towers?

19 A. So when we hit the answer button on our phone,
20 we have a map that accompanies CAD. So it's a map of
21 every street, every county. It's maintained almost
22 daily.

23 So there's a little phone icon that pops up on
24 the map where that phone is telling us it's being pinged
25 by a cell tower or a latitude longitude. So it also
26 gives us, as far as the phone system goes, gives us a

1 percentage and a distance to that phone. So a lot of
2 them will say 58 meters at 90 percent. Well 58 meters is
3 a couple hundred feet, that's pretty accurate, which we
4 have used in the past, we can really scroll into our map.
5 And sometimes that little phone icon is in the middle of
6 an address parcel and they don't know where they're at,
7 and we can go, "Do you think it's on 13759 Creston Road?"

8 "I don't know. Yeah, we're on Creston Road."

9 We tell the resources try 13760, whatever, and
10 they actually are able to find people in that manner.

11 MR. NOEL: Madam Foreperson, I'm informed that
12 the other witness is back outside. Take a quick break,
13 we'll send out Captain Hartshorn, bring him in, deal with
14 that.

15 GRAND JURY FOREPERSON: Okay.

16 MR. NOEL: Have you step down. We'll be right
17 back.

18 And did we have a question?
19

20 CONTINUED EXAMINATION
21

22 BY MR. NOEL

23 Q. I'm sorry we had to bring you back, Mr. Taylor.
24 We had forgot a couple of things.

25 A. It's all right.

26 Q. First off, you've been gone now for about 20

1 minutes; is that correct?

2 A. Yeah, I think so.

3 Q. Since you left the courtroom, have you talked
4 to anybody about your testimony?

5 A. No, I have not.

6 Q. Has anyone tried to talk to you about your
7 testimony?

8 A. No.

9 Q. And then after, afterwards, the last thing I
10 did was ask the jurors if they had any questions, and I
11 missed one. So the grand jurors did have two questions
12 for you that they'd ask me to you ask.

13 A. Okay.

14 Q. So on November 8th, 2018, when you noticed the
15 fire near the tower, why did you observe for around 15
16 minutes and not go to a place to report the fire?

17 A. Because I believed that my lead worker had gone
18 to go report the fire. I thought that's why he had left.

19 Q. Okay. And you said that there was another
20 co-worker who was there when you arrived sitting in his
21 car. Why did you not inform that other co-worker that
22 you were going to call in the fire and go call it in?

23 A. Yeah, I could have done that. I was just kind
24 of caught off guard. And then I'd only been working
25 there for a little bit, so I wasn't too comfortable with
26 everything yet. Yeah. It was just a mistake. I should

1 have.

2 MR. NOEL: Any follow-up?

3 Madam Foreperson, if you'd admonish him,
4 please.

5 GRAND JURY FOREPERSON: Mr. Taylor, you are
6 admonished not to discuss or disclose at any time outside
7 of this jury room the questions that have been asked of
8 you or your answers until authorized by this Grand Jury
9 panel or the Court. A violation of these instructions on
10 your part may be the basis for a charge against you of
11 contempt of court. This does not preclude you from
12 discussing your legal rights with your own attorney.

13 What I have said, have just said is a warning
14 not to discuss this case with anyone except the Court,
15 your lawyer, or the district attorney.

16 THE WITNESS: Okay.

17 GRAND JURY FOREPERSON: You understand?

18 THE WITNESS: Yes, I understand.

19 GRAND JURY FOREPERSON: Thank you.

20 MR. NOEL: Now you can leave. We will try not
21 to chase you down this time.

22

23 CONTINUED EXAMINATION

24

25 BY MR. NOEL

26 Q. All right. You're back. You're still under

1 oath. Remember, you got to speak out loud so that the
2 court reporter can take it down. We have a court
3 reporter here to take down every word, and she can only
4 take down things verbalized. Head nods and alike are not
5 -- don't show up well in transcripts.

6 All right. So when we left off we were talking
7 about receiving calls into the ECC?

8 A. Yes.

9 Q. And you just described what happens when
10 someone calls in from a cell phone?

11 A. Correct.

12 Q. So just to summarize that, the ECC phone system
13 will harvest certain location data from the phone call
14 making the -- or the phone making the call, allowing you
15 at least some idea as to where that person is located?

16 A. It does, with one exception. There's still
17 probably a quarter of the callers that know an old
18 seven-digit emergency number that is still in our
19 Emergency Command Center. And that's the only way that
20 it does not go through a primary PSAP to law enforcement.
21 But generally, the folks that still have that number know
22 they need help with a fire or medical or whatever and
23 those calls come directly to us.

24 Q. So there's non 9-1-1 calls?

25 A. They're emergency lines, they're just a
26 seven-digit emergency line that's not 9-1-1.

1 Q. Right. So it's a direct line to you?

2 A. Correct.

3 Q. And with those calls, does the system
4 automatically harvest?

5 A. It does not. We have to verbally get every
6 detail out of that caller based on where they're at,
7 location, their name, and a phone number, because nothing
8 populates on a seven-digit emergency line. And we try
9 and educate people that it's safer, a little easier to
10 just call 9-1-1, because certain things populate for us.
11 It helps us find them if they don't know where they're
12 at.

13 Q. So when the calls come in, the computer system,
14 the Computer-Aided Dispatch system --

15 A. Uh-huh.

16 Q. -- immediately populates a screen for that
17 call?

18 A. It does. It, it gives us what's called an EVA
19 screen. So it's basically, it's an event entry. So it
20 tells us we need to get a location, a name, a phone
21 number, and then the reason that they're calling 9-1-1,
22 whether it's for help up, fire, heart attack, chest pain,
23 whatever. So then once we get that information captured,
24 then the lead or the radio person can dispatch those
25 resources to that location.

26 Q. So that information gets inputted into the

1 system by the support person who is answering the phones?

2 A. Correct.

3 Q. And then that support person pushes a button
4 and what happens?

5 A. So once they have the information captured, we
6 know where they are by an address or intersection,
7 landmark, things like that, we have their name, or at
8 least a name they give us, a phone number, and a reason.
9 Then there's a green "okay" button. Once they push that
10 button, it drops into the system.

11 So we have seven positions, seven CAD positions
12 in our command center. Once that information is dropped
13 in CAD, it can be accessed from any one of those seven
14 positions. So it doesn't matter where you're sitting.
15 Maybe the lead dispatcher was making lunch and they're
16 away from their desk in the kitchen. Then that support
17 person can drop that call, or the duty captain by chance
18 might just open that call by double clicking it in CAD,
19 it gives the same information because CAD's live at every
20 single position in the center.

21 Q. So once that call is dropped into CAD, that
22 information is dropped into CAD and it goes live, the
23 information goes to the radio dispatcher?

24 A. So -- it does. So we, like with any computer
25 program, double click, it opens a program; right? So
26 double clicking the call when it's sitting in "pending"

1 is telling us that that pending call is awaiting
2 dispatch. So we double click it, it opens up. It's just
3 kind of a screen that reiterates the location, the name,
4 the phone number, and the reason that we're going.

5 Then once the lead dispatcher kind of confirms
6 -- it gives us a suggestion based on where all those
7 resources are in the community. So as things move
8 around, we do certain commands in CAD to move, so we have
9 the closest available research -- or engine to send to
10 that emergency.

11 Q. So the system also keeps track of all the
12 assets throughout the county?

13 A. It does. Half of the stuff, the state stuff
14 has AVL, which is Auto Vehicle Locator, which is going
15 statewide. And then the county stuff does not, so we
16 have to physically, manually move those engines in CAD to
17 different facilities. So if an engine goes to the county
18 shop for maintenance, we physically do a command in CAD,
19 move that resource in CAD to the county shop so they can
20 go get their oil changed or whatever the case may be.
21 And then we, when they come available and are returning
22 to their respective station, we would move them back in
23 CAD. That's how it works.

24 Q. So once a location is entered by the support
25 person taking the call, the system automatically finds
26 what the nearest resources would be?

1 A. It does. So how CAD works is it works
2 backwards. So it starts at the emergency. So if the
3 emergency is at 123 Main Street, let's say, it takes the
4 center of the emergency and works back to the closest
5 fixed facility where resource is at. Or, if it's a state
6 resource and one happens to be driving by, that AVL, Auto
7 Vehicle Locator, refreshes every 8 to 15 seconds, so as
8 that state engine drives by, CAD would see that and
9 suggest that engine 2162 is the closest engine to this
10 emergency. If there's no state engines in the general
11 area, it works off the closest fixed fire station to that
12 address. So CAD works backward from the emergency to the
13 closest facility or resource.

14 Q. So how does it work when the phone is not
15 actually in the same location as the emergency?

16 A. We have taken numerous calls -- I took just one
17 the other day, somebody was calling from South Lake
18 Tahoe. So it works off basically an address. They know
19 where the emergency is, which happens on quite a few
20 occasions, more so than I thought would in this county.
21 So there's certain individuals that call relatives to
22 call 9-1-1. So then that relative has to know where that
23 person is at. We try and get the address, we get a phone
24 number for the person at that address, the person's name
25 that's calling or the family member, and a call back
26 number for them as well.

1 Q. And so at that point, the call taker, the
2 support person, would manually enter in the address of
3 the emergency into the CAD?

4 A. Yes. So let's say that person is a family
5 member that lives in Chico, is calling for somebody in
6 Oroville. Well, our phone system and CAD system is going
7 to autopopulate their information in Chico. So then we
8 would have to highlight that information, delete it, and
9 then put in the information based on where they're
10 calling for the emergency. So they're calling for
11 Grandma in Oroville from Chico. That information would
12 be manually, by us, backspaced, deleted, new location
13 entered, phone number for them, phone number for the
14 residence that they want us to go to, and what's going on
15 there.

16 Q. And as soon as the support person clicks upload
17 or end or whatever, the system immediately plots that
18 onto a map, finds where the nearest resources are, and
19 then?

20 A. Then it gives us a suggestion for the closest
21 engine response, yes.

22 Q. And then the radio dispatcher picks up the
23 call, gets on the radio, and starts calling in the
24 resources?

25 A. Yeah.

26 Q. Once the CAD is released by the call taker,

1 does it go out to anyone else besides the people in the
2 ECC?

3 A. The information that we -- basic information
4 that we enter in CAD goes out via a CAD page. So every
5 Cal Fire employee that works in this county, or any
6 county for that matter, there's a form that you can fill
7 out if you wish to receive the CAD information. And in
8 our particular county, it's based on a CAD Inquiry Form
9 or just an e-mail to one of the supervisors like myself,
10 the duty captain that day, for a phone number to be
11 entered into CAD.

12 So every firefighter, every engineer, captain,
13 chief, it doesn't matter, everybody has a record in CAD.
14 We attach those phone numbers' carrier -- yeah, the
15 carrier and the type of messaging, if you just want
16 standard text or MMS, which is the Multi Media Message,
17 to that individual's record in CAD.

18 Now, when that individual rosters themselves on
19 a fire engine via CAD Web, which is another portion of
20 CAD, kind of another program that lives at this fire
21 station's computers -- so for, rostering for us to know
22 that captain so and so and firefighter so and so are on
23 Engine 81 today, they do CAD Web. And when they roster
24 themselves, that information or their phone number, it's
25 attached to that fire engine now.

26 So until somebody else staffs that engine

1 that's a different, two different people or three
2 different people, that information is going to remain on
3 Engine 81 resource in CAD. So the minute we hit the
4 dispatch button, the location, the phone number, and the
5 reason, like we would put in remarks chest pain, that's
6 why they're calling, so for those two individuals on
7 Engine 81 that roster themselves on that fire engine,
8 that information is going to go to their cell phone.
9 Then there's a link attached to that CAD page that routes
10 them to that call.

11 Q. So, for instance, if a, if Jarbo station was
12 the closest station to a call, once the CAD was released
13 by the call taker, a text would automatically go out to
14 any of the personnel at Jarbo station?

15 A. Only the personnel attached to that. If we
16 send -- for instance, one of the engines at Jarbo Gap
17 station is Engine 2176. So if we are sending 2176 to a
18 medical aid for chest pain, down the street at Scooter's
19 Restaurant, let's say, there was a captain and two
20 firefighters on that engine. They rostered themselves on
21 Engine 2176 for that day via CAD Web, which is another
22 program attached to CAD, then just those three
23 individuals get that CAD page.

24 Q. So that would be a little bit extra early
25 warning of a call coming out?

26 A. Well, it's -- they would actually be alerted

1 sooner than the CAD page comes out by the process that we
2 use. So we use a, a three-alert system that you would
3 hear beep, beep, beep over the radio. And then Engine
4 2176, medical, Scooter's Restaurant, blah, blah, blah,
5 Highway 70. So that's their pre-alert or
6 pre-announcement, as you would call it. Then the
7 dispatcher would open that call, hit the dispatch button,
8 then we would set off the tones for Jarbo Gap Fire
9 Station, which is the station quick call, their alerting
10 system, then we would basically read that screen for
11 Engine 2176, medical aid, chest pain, Scooter's, Highway
12 70. And then 10 to 15 seconds generally after that is
13 when that text shows up.

14 Q. Now, let's go to the morning of November 8th,
15 2018.

16 A. Yes.

17 Q. Were you assigned to the ECC at that time?

18 A. I was that morning. And I showed up for work
19 about 6:40 in the morning and there was not much going
20 on. I was quickly filled in that we were running a fire
21 that was previously dispatched prior to my arrival.

22 Q. Okay. Now let's back up at this point. As of
23 November 8th, 2018, how long had you been a captain in
24 the ECC?

25 A. Little over two years.

26 Q. And were you scheduled as the duty captain on

1 November 8th, 2018?

2 A. I was supposed to be the duty captain that day,
3 yes.

4 Q. What time were you scheduled to go on duty?

5 A. 7:00 o'clock.

6 Q. You said you arrived at approximately 6:40?

7 A. Correct.

8 Q. Is that when you physically walked into the
9 ECC?

10 A. I walked in the door at 6:40 that morning.

11 Q. Was there a duty captain on whom you would be
12 relieving?

13 A. Yes.

14 Q. Who was that person?

15 A. Marcus Ekdahl. He's another captain that has
16 been in there probably six or seven years. And each one
17 of us captains rotate duties throughout your shift. And
18 I was supposed to be the duty captain that day.
19 Generally, we try not to change roles if somebody's
20 already underway facilitating one of those roles.

21 So he and I had a brief conversation when they
22 filled me in about the fire. There was, really nothing
23 verbalized at that point that early in the morning
24 that it was going to be something this significant. So
25 we had discussed let's see how this thing pans out,
26 you're already dealing with the role of the supervisor,

1 the duty captain for the day, and we'll -- if things calm
2 down, we'll transition a little later. Well, we never
3 transitioned because we never got the time.

4 Q. Got a little busy there?

5 A. Just a bit. So what we did in the meantime is
6 he and I discussed, as I discussed earlier, that the
7 aircraft role. So I already had a lead dispatcher, I had
8 a support person answering phones, Marcus was
9 facilitating the role of the duty captain already in the
10 morning. So I, he and I decided that I would hold the
11 role of the aircraft dispatcher that particular day.

12 Q. What does it mean to be the aircraft
13 dispatcher?

14 A. So generally our aircraft doesn't come up until
15 10:00 o'clock in the morning. So with -- in summertime,
16 you want them flying later in the day, when fires are
17 more active. So they don't start until later. So
18 generally, as a rule of thumb, you're not a busy person
19 at your work station with aircraft at 7:00 o'clock in the
20 morning. So you have time to allow someone else to make
21 some breakfast, to get a cup of coffee, maybe to do PT,
22 something like that. So you're typically not busy until
23 a little bit later on in the morning into the afternoon.

24 As those times come upon you is when you would
25 be the one listening to the aircraft that's over an
26 incident or the incident commander requesting tankers,

1 helicopters, things like that. That person, myself, as
2 the aircraft dispatcher, would be on the region intercom
3 calling for those resources to come to our fire.

4 Q. So just to define terms, you used the term
5 "PT"?

6 A. Physical training.

7 Q. Exercise?

8 A. Exercise.

9 Q. Important you stay in shape?

10 A. So -- yeah, it is. So we rotate those roles.
11 So at any given time, even the duty captain, like myself
12 today, could be taking phone calls because that
13 individual is in the restroom or they're making their
14 lunch. And then we just rotate through the three or four
15 of us that are in the Emergency Command Center and share
16 those roles. But as everybody's in their work station,
17 then it reverts right back to the lead, the support, duty
18 captain, and aircraft if we have it.

19 Q. So normally on a morning like this, the
20 aircraft would not be going up until after 10:00?

21 A. Yes.

22 Q. You're taking over as the aircraft coordinator
23 before 7:00 in the morning, not a whole lot for you to
24 do?

25 A. There was not much for me to do, so once I had
26 that brief conversation with Marcus that was going to

1 remain the duty captain, they kind of filled me in on a
2 little bit of the dispatch that happened prior for the
3 Camp Fire, and then I went and grabbed a cup of coffee
4 and just started talking to the rest of the folks about,
5 you know, how the call came in. And it was pretty slow
6 at that point. There really wasn't a whole lot going on.
7 The first wave of the fire engines were responding to the
8 Camp Creek area, and there really wasn't a whole lot for
9 anybody to do, myself included.

10 Q. So were you able to access the CAD for the
11 call?

12 A. I did. And I signed into my work station and
13 got all the appropriate monitors up for myself to be able
14 to facilitate CAD and aircraft and all the programs that
15 I needed and was kind of reading through the call and
16 looking at what resources were assigned to it already
17 that morning.

18 Q. According to the CAD system, what time did the
19 initial 9-1-1 come in?

20 A. That call came in at 6:29 in the morning.

21 Q. Do you know where that call came from?

22 A. The Pulga area.

23 Q. Landline or cell phone?

24 A. I believe it was a cell phone, but I'm not a
25 hundred percent sure.

26 Q. Okay. Do you know who the caller was?

1 A. Not right offhand. Like I said, it happened
2 prior to my arrival.

3 Q. Were there additional subsequent calls coming
4 in?

5 A. At that time in the morning, there was not.
6 Not too long after that, yeah, it didn't stop.

7 Q. All right. So you've got yourself up to date
8 with this, with the Camp A fire at that point, the 6:29
9 a.m. 9-1-1 call?

10 A. Yes.

11 Q. You've got your station up and running,
12 everything's doing, there's not a whole lot of aircraft
13 to deal with at that time in the morning, so what are you
14 doing?

15 A. So I decided we have another tool at our
16 disposal called the Fire Watch cameras, so they're
17 cameras that we can manipulate -- zoom, go live -- if we
18 feel the need that we need to look at a particular area.
19 So I grabbed my cup of coffee and went over to the work
20 station that houses these Fire Watch cameras, and I sat
21 down and I started thumbing through different images
22 trying to find the Camp Fire that they dispatched at
23 6:29.

24 MR. NOEL: Madam Foreperson, this would be a
25 good point if we wants to take the morning recess. I
26 know we've been in session for almost an hour, and Madam

1 Court Reporter might need a break.

2 GRAND JURY FOREPERSON: Okay. Let's take a
3 break. Ten minutes?

4 MR. NOEL: Sounds good.

5 GRAND JURY FOREPERSON: Okay.

6 (Break taken.)

7 GRAND JURY FOREPERSON: Are we all back?

8 All members of the Grand Jury are here.

9 Q. (By MR. NOEL) All right. Captain Hartshorn,
10 just as we went to break we were starting to talk about
11 Fire Watch cameras?

12 A. Yes.

13 Q. What are Fire Watch cameras?

14 A. Fire Watch cameras are strategically placed
15 around the county on some of the high mountain peaks
16 around the county -- Bloomer, Bald Mountain, Flea
17 Mountain -- in the Concow Jarbo Gap area, Sawmill Peak,
18 things like that. So they're attached to the top of some
19 of the radio towers that have to be on high mountain tops
20 in order for our radios to be able to work. And they're
21 placed there. And we can access different cameras from
22 the command center to take a, kind of a quick still shot
23 of a certain area that, again, updates every 15, 20, 30
24 seconds. Or we can actually ask the camera to go live
25 and physically look at an area to where we can zoom in
26 and take pretty good looks at images in certain areas.

1 Q. So from the ECC, do you have access to the Fire
2 Cam data?

3 A. We do. Captains do, yes.

4 Q. Describe that for me.

5 A. So alongside everybody's work station, kind of
6 on the side of the building, is six screens. And in
7 those screens is the computer, the PC, the mouse, all the
8 monitors that just kind of rotate through quick images of
9 Flea Mountain, Bald Mountain, Bloomer, Bloomer East,
10 Bloomer West, Sawmill Peak. And just routinely there's
11 just images up there that are dated every 15, 30 seconds.
12 And it just kind of flips like a screen saver through a
13 mode of the different cameras.

14 When you want to access one of those cameras,
15 you basically activate that camera and then you can click
16 on, let's say, like I did Flea Mountain. And it gives
17 you a drop-down list. And, let's say, there's seven or
18 eight views that you can look at. So it just says Flea
19 1, Flea 2, et cetera, all the way down to number 8. When
20 you click on those, the camera changes and it takes -- I
21 said it's slow -- it takes 15 to 20 seconds for it to
22 kind of clean up its view of that image and then auto
23 zoom itself. And now you're looking at a particular
24 camera that you picked from the command center. So I
25 have access to all of those, as I was that morning.

26 Q. So access to the live view or access to past?

1 A. Both. I can access archive views as well and
2 then I can put a camera into live mode and physically
3 look at what I'm looking at in real-time.

4 Q. So on the morning of November 8th, 2018, you
5 said after you logged into your computer you got your cup
6 of coffee, you got all ready to go, you decided to go
7 take a look at the Fire Cams?

8 A. I did.

9 Q. What time do you think you started looking at
10 the Fire Cams?

11 A. I was over there pretty quickly after I had the
12 conversation with Marcus. It was probably close to 6:50.
13 Somewhere right in there. Little before 7:00.

14 Q. So describe the process of looking through the
15 Fire Cam data.

16 A. So when I sat down around that 6:50, I started
17 scrolling through some of the images trying to find the
18 fire that they dispatched prior to me getting to work.
19 So I'm looking through some of the images, and I'm not
20 finding nothing. I'm looking at Bloomer, I'm looking at
21 Sawmill, I'm looking at several different cameras, and I
22 happen to go to the Flea Mountain, which is above Jarbo
23 Gap, and started looking at a couple of images. And in
24 the camera that I was looking at, also in real-time, at
25 6:50 in November it's still right at dawn, it's still
26 kind of dark outside and not fully light out, as it was

1 going to be for the start of November 11th. So in the
2 video of the Fire Watch cameras it's showing me the same
3 thing, right about dawn, just starting to get light
4 outside.

5 So I'm scrolling through some of the Flea
6 Mountain. Knowing the geographical area, because I've
7 worked here for a long time, I assumed that the Flea
8 camera would give me the best view of the Camp Fire.
9 Just kind of picking through cameras to see which
10 direction I was looking at right around 6:53, 4, 5,
11 somewhere right in that range, I saw something that
12 caught my eye, and I started kind of focusing on just
13 that one camera, toggling back and forth between one view
14 and the next. And right about dawn I started to see
15 smoke.

16 Q. What did you see in the photograph that caught
17 your eye?

18 A. What I saw was the development of smoke at the
19 top of the ridge. And then as I watched it in the live
20 mode, I started to see actual flame. And it started to
21 get a little bigger. And I zoomed in. And, again, it
22 took 20, 30 seconds for the image to clean itself up.
23 Once you move a camera, it takes lag time from the camera
24 to the location to filter and auto focus itself back up.
25 Then I'm looking at a pretty good image of flames that
26 are in the brush and the trees, and that's when I voiced

1 out, "Hey, Marcus, I think I found your fire."

2 Q. So does the Fire Watch camera system allow you
3 to save images and video?

4 A. It does.

5
6 (Grand Jury's Exhibit 56 (erroneously marked Exhibit 57)
7 was marked for identification.)

8
9 Q. In front of you, you should have what's marked
10 as People's Exhibit No. 57, a photograph, for
11 identification. You should have a physical.

12 A. Yes, I do.

13 Q. Do you see People's Exhibit 57?

14 A. I do.

15 Q. See the photograph that's being displayed on
16 the big board here for the jurors?

17 A. Yes.

18 Q. Same photograph?

19 A. It is.

20 Q. Describe to us what we're looking at in the
21 photograph marked as People's Exhibit 57.

22 A. So what you're looking at is a picture of the
23 Fire Watch camera monitor that this particular camera
24 was, was centered in. So this is the top smoke that
25 caught my eye when I started watching the cameras. And
26 the top of this ridge is where that smoke started to kind

1 of show itself.

2 Q. Okay. So when we're talking about this smoke,
3 we're talking about just off of center, right, that I
4 just circled in black?

5 A. Correct.

6 Q. So that's the smoke that you saw?

7 A. Yes, that's what I found that morning shortly
8 before 7:00.

9 Q. That's what caught your attention?

10 A. Yes.

11 Q. Now, does the Fire Watch camera system or the
12 computer system that you're watching, does it have time
13 and date stamp?

14 A. It does.

15 Q. And does it -- when you isolate an image, save
16 an image, does the system time and date stamp it to tell
17 you when, what time what camera, the image was taken?

18 A. It does.

19 Q. And where is that information located on the
20 photograph?

21 A. Typically top left-hand corner of your screen.

22 Q. So right up here where I'm highlighting yellow?

23 A. Yes.

24 Q. So can you read for us what this image, what
25 the time and date stamp for this image says?

26 A. This one, November 8th at -- that's small. I

1 can't read this one. I can't quite make it out in the
2 photograph.

3 Q. Do you want to come up here and read it off
4 the --

5 A. Sure.

6 Q. Obviously, the seven-foot version of it is a
7 little bit bigger than the 8-by-10.

8 A. So November 8th, 2018, 06:48 and 46 seconds,
9 from Flea camera 5.

10 Q. Okay. So this image was shot at 6:48 a.m. and
11 46 seconds?

12 A. Yes.

13 Q. And you said from Flea camera 5?

14 A. Yes.

15 Q. How many cameras are there on Flea Mountain?

16 A. I believe there's eight.

17 Q. So when you saw this, when the smoke coming up
18 over the hill attracted your attention, what did you do?

19 A. I brought it to the duty captain, Marcus. He
20 was facilitating that role that morning. He came over,
21 looked, and as did a couple other people, my dispatcher
22 and my support, because they were there that dispatched
23 that fire previously at 6:29. And we had all kind of
24 thought that we had found that fire.

25 Q. So what did you think, what fire did you think
26 you had found?

1 A. I thought I found the Camp Fire, the initial
2 dispatched fire at 6:29.

3 Q. So you showed this, the image, to the others,
4 and then what happened?

5 A. So shortly after that, it started to become a
6 little more light and a little more people were awake in
7 the valley. And by 7:05 or so multiple 9-1-1's started
8 coming in from everywhere. So I had to leave this
9 position and go answer overflow 9-1-1 calls that were
10 coming into the command center.

11 Q. So things started blowing up?

12 A. To say the least. That they did. It was
13 purely nonstop 9-1-1's for hours and hours and hours.

14 Q. Describe for us what it was like in the ECC on
15 the morning of November 8th.

16 A. We like to call it a duck in a pond. So we try
17 and keep a calm demeanor, because we're the voice of the
18 county, but underneath water you're paddling like crazy
19 because it was pure chaos. Everybody was trying to stay
20 calm, everybody was trying to get as much of the
21 information captured from the callers, because they were
22 calling from south Chico, to Gridley, to Berry Creek. If
23 they saw it, they called, because it was starting to
24 develop and really get ahead of steam going, and
25 everybody that saw it called 9-1-1. Almost 1,700
26 callers.

1 Q. And in what period of time?

2 A. Geez, that first probably ten hours. On
3 average, we were each answering about 103 calls an hour.

4 Q. Now, you said normally you have one support
5 person answering the calls, one radio person dispatching
6 out units?

7 A. Uh-huh.

8 Q. Now, you mentioned earlier that you became an
9 overflow support person?

10 A. Correct.

11 Q. How many people did you have working on the
12 floor answering calls?

13 A. Four prior to 8:00 o'clock. We were able to
14 get a hold of one additional by 8:00 that was off duty on
15 vacation that came in to help. And by 8:00, 8:15, we had
16 a fifth. So for that first wave of panic that morning
17 was just four of us.

18 Q. The duty captain, yourself, the radio
19 dispatcher, and the support person?

20 A. Correct. Up until about 8:00 or 8:15 when my
21 other dispatcher arrived.

22 Q. And sometime prior to about 8:30 your little
23 team swelled to six people?

24 A. It did by 8:30, 9:00 o'clock.

25 Q. So the six, six of you were there dealing with
26 all of these calls?

1 A. That's all we did. I mean, literally that's --
2 even the radio person that particular day, he was trying
3 to dispatch and voice out, physically say the engines to
4 respond to the fire. We still had other emergencies in
5 the county, other medical aids and traffic collisions and
6 things like that that we had to try and get assistance
7 and help to. There was times that that radio person was
8 trying to voice out just a medical aid down the street,
9 still on the phone with callers from the Camp Fire. I
10 mean literally for hours all we did is answer phones.

11 Q. You said I believe somewhere around 1,700?

12 A. Just -- yeah, just shy.

13 Q. You said over a hundred calls an hour?

14 A. I mean that's our math, yeah, for the four of
15 us. And then broke it down to a fifth a little later.
16 It was, roughly, about a hundred calls per person per
17 hour. I was there, I can vouch that it was -- every line
18 we had for hours was lit up red. You would hang up with
19 one, answer the next, hang up with one, answer the next,
20 over and over and over.

21 Q. How long were you doing this?

22 A. Thirty-six hours. At least.

23 Q. So, obviously, you stayed in the ECC?

24 A. All of us did.

25 Q. Captain Ekdahl?

26 A. Stayed.

1 Q. The support person, the dispatcher on when you
2 came in at 6:30?

3 A. The support person that was there initially was
4 one of my night shift staff. She held over for a short
5 time, while the overflow was starting to come in, but
6 then when the fire did what it did and crossed into the
7 Paradise area, she was also a Paradise resident that was
8 affected. So we were able to get her into somebody with
9 a vehicle to get her up to try and secure her house. So
10 that's when she left and in a few hours later came back.

11 Q. So you yourself were on in the ECC for 36 hours
12 straight?

13 A. At least.

14 Q. And how about Captain Ekdahl?

15 A. Same. He was there for 30, 36, 40 hours as
16 well.

17 Q. Were you able to get any rest?

18 A. We, we tried in the wee hours of the morning on
19 the 8th going into the 9th, but the amount of workload,
20 it -- just three people couldn't do it. We just, we
21 physically just couldn't leave the building.

22 Q. Now, when that deluge of calls started, you
23 were at the Fire Cams looking at what you thought was a
24 photograph, Exhibit No. 57, of the Camp Fire --

25 A. I was.

26 Q. -- correct?

1 At some point were you able to return to the
2 Fire Cams?

3 A. About 24, 28 hours. Time is crazy that
4 particular day. Twenty-four to 30 hours later I went
5 back to the Fire Watch cameras on that half of the
6 command center and I saw a different image that was just
7 stuck there and froze.

8 Q. What was that image?

9 A. It was an image of a major fire and smoke
10 plume. Just basically -- I wasn't sure where it was
11 left, so I accessed the archive footage and was able to
12 back that video up and pick up where I left off when I
13 got busy with phone calls.

14
15 (Grand Jury's 57 (erroneously marked Exhibit 58)
16 was marked for identification.)

17
18 Q. Okay. So we still have 57 up here.

19 Next up in front of you you have Exhibit 58?

20 A. Yes.

21 Q. Do you see Exhibit 58?

22 A. I do.

23 Q. And do you recognize 58?

24 A. I do.

25 Q. Is the 58 that you are holding in your hand the
26 same as the photograph that's being displayed on the big

1 board?

2 A. It is.

3 Q. Describe for us what we're seeing in 58.

4 A. So in this photograph is basically as the fire

5 slowly intensified, and I just started to see the flames

6 pop to the top of the ridge.

7 Q. Okay. Is the time and date stamp on this one?

8 A. It is.

9 Q. Can you read that?

10 A. November 8, 2018, 06:55 I think.

11 Q. 06:55 and 54 seconds?

12 A. 54 seconds, yes.

13 Q. Again, this is Flea camera number 5?

14 A. Yes, it is.

15 Q. Same camera image we looked at before?

16 A. Yes.

17 Q. So this photograph comes basically about 7 1/2

18 minutes after 57 --

19 A. Yes.

20 Q. -- correct?

21 A. Yes.

22 Q. And you said now in 58 we can see flames

23 starting to crest that little ridge where you saw smoke

24 in 58 -- 57?

25 A. It is.

26 Q. So initially you're thinking that this is the

1 Camp Fire?

2 A. First thought, yes, I had tunnel vision into
3 just that image. And I really didn't take a bigger look
4 until that 20 or 30 hours later when I was going back and
5 re-accessing these images.

6 Q. So when you came back to these images somewhere
7 two to three days after, did you see other parts of the
8 image that made you question your initial reaction?

9 A. I did. And what I noticed the second time, now
10 with the actual Camp Fire raging through Paradise and
11 wherever else, I noticed when I accessed these archive
12 videos, I had a little bit broader perspective to look at
13 this image, and what I realized from this image is that
14 little body of water that's out in front of it is -- I
15 thought was Concow Lake, which made me guess that this
16 was actually the Camp Fire.

17 Q. So when you're talking about this body of
18 water, I've circled in blue over here --

19 A. Yes.

20 Q. -- is that the body of water you're talking
21 about?

22 A. It is.

23 Q. Center of the photograph on the right side,
24 right-hand side of the photo?

25 A. It is.

26 Q. And that's Concow Lake?

1 A. That's what I originally thought my second look
2 at this image, yes.

3 Q. And now that you realized this is from Flea 5
4 and that appears to be Concow Lake, are you able to
5 access the camera locations and determine where that
6 camera is pointed?

7 A. I did. And that's when I started looking at
8 different views, different cameras, accessing that
9 archive footage as well.

10 Q. And you realized that this fire depicted in 57
11 and 58 that you had seen early in the morning on the 8th
12 was not actually the Camp Fire?

13 A. No, it was not, it was actually a second fire.

14 Q. All right. So you have -- in front of you
15 there should be a DVD. You said you were able to view
16 the video from the different cameras?

17 A. Yes. I accessed the archives.

18 Q. And then you were able to capture those videos
19 and save those videos; correct?

20 A. Yes.

21 Q. When you realized that the images you had seen
22 were not of the Camp Fire up in Pulga, that there was
23 something over in Concow, what did you do?

24 A. Well, I immediately went to a different camera,
25 I went to a different view, and tried to confirm my
26 suspicion that I was looking at actually a separate fire.

1 And once I did that, I immediately called our prevention
2 officer that was handling the investigation for this
3 fire. And I said, "I need to speak with you immediately.
4 It's imperative that you get over here and see what I
5 need to show you."

6
7 (Grand Jury's Exhibit 58 (erroneously marked Exhibit 59)
8 was marked for identification.)
9

10 Q. All right. So you have 59 there in front of
11 you. It's a DVD?

12 A. Uh-huh.

13 Q. And I'm going to play that. And you want to
14 step out here where you can, you have a good view and you
15 can see and you can tell me what it is?

16 A. This is an image of the Flea Mountain camera
17 that I was looking at. Here's that ridgetop area from
18 the images of the still.

19 There's the smoke that I saw. And then as it
20 progresses, you saw the flame. And then this is where
21 the other image that comes through that I found a day and
22 a half later when I accessed the archive footage.

23 Q. All right. Let's back up. When we talked
24 about earlier, you said there's multiple ways of viewing
25 the footage from the Fire Cams; correct?

26 A. Yes.

1 Q. You can look at single still images?

2 A. Uh-huh.

3 Q. Or you can look at a, essentially a video made

4 up of single still images?

5 A. Essentially, yes.

6 Q. Kind of a time-lapse?

7 A. That's basically what it is, yes.

8 Q. Or you can actually look at the live feed?

9 A. At a live view.

10 Q. So what are we looking at in this video?

11 A. So essentially the image that was down here,

12 that initial smoke that I was looking at, that's just

13 changed.

14 Q. So this is time-lapsed?

15 A. So this is Bloomer.

16 Q. Hold on. How did we -- okay. Yeah. We forget

17 that that's touch screen.

18 All right. So we're back to the Flea Mountain,

19 No. 59?

20 A. Yes. You'll see the fire pick up here, there.

21 Fire is just cresting the ridge. And then I started to

22 notice, as I'm accessing this archive footage, this big

23 band of smoke off to my left, or the east, that is coming

24 into view of the fire that I initially thought I was

25 looking at, which told me without a doubt at that point

26 that what I was looking at was not the initial Camp Fire.

1 And then, of course, it shows itself and runs right over
2 the top of that smaller fire that we were just looking
3 at.

4
5 (Grand Jury's Exhibit 59 (erroneously marked Exhibit 60)
6 was marked for identification.)
7

8 Q. All right. So then let's move on to No. 60.

9 We've got a numbering problem. The numbers
10 aren't matching up. So we're going to have to deal with
11 that. We will deal with that at the break. These
12 numbers aren't matching up.

13 All right. So, now, you said you went back and
14 you looked at other Fire Cam videos?

15 A. I did.

16 Q. One of those was Bloomer?

17 A. I know the county geographically really well,
18 I've worked here a lot of years, so knowing where Bloomer
19 lives, Bloomer Mountain, where the fire was, I knew kind
20 of basically what couple of camera views that I needed to
21 look at to look back towards that northeast, which is
22 what this is.

23 Q. And which camera is this from?

24 A. Bloomer 9 East Camera.

25 Q. And this is the same type of video, kind of a
26 time-lapse?

1 A. It is. You'll see it starts to show here,
2 there.

3 MR. FOGG: Captain Hartshorn, sorry to
4 interrupt, when you point at the screen, could you please
5 indicate what part of the screen you're pointing to,
6 either the right-hand side or left-hand side?

7 THE WITNESS: Sure.

8 MR. FOGG: Thank you.

9 Q. (By MR. NOEL) Okay. So --

10 A. Right up here, top right --

11 Q. Okay.

12 A. -- you'll start to see a little bit of smoke
13 and what appears to be just a little bit of band of smoke
14 that's coming off the east from the actual Camp.

15 Q. Okay. Just the way things are going today.

16 A. Upper right and then behind. There's the big
17 band as it comes through and runs into Paradise.

18 MR. FOGG: Captain, you're moving from the
19 right-hand side of the screen to the left-hand side
20 screen at the top?

21 THE WITNESS: Right-hand, top right, moving to
22 the left side of the screen you'll see the smoke plume.

23 MR. FOGG: Referring right now to Exhibit 60;
24 correct?

25 THE WITNESS: Correct.

26 MR. FOGG: Thank you. Or what is marked as

1 Exhibit 60.

2 MR. NOEL: All right.

3

4 EXAMINATION

5

6 BY MR. FOGG

7 Q. Captain Hartshorn, I want to direct your
8 attention back to Exhibit 57. If you'll remember, it's
9 one of the Fire Cam pictures we talked about the date
10 stamp in the top. How often do you use the Fire Cam
11 system in the course of your career at Cal Fire?

12 A. Well, it's relatively new as far as the
13 technology coming into command centers.

14 Q. Right.

15 A. I know we've had it in there for several years.
16 And we've been able to access it a handful of times each,
17 as needed for some of the fires that have gone on in the
18 county.

19 Q. When you've previously accessed it, have you
20 seen the date and time stamps on the images?

21 A. Yes.

22 Q. In your experience, is this date and time stamp
23 generally accurate?

24 A. They're not as accurate as real-time. And we
25 can't figure out -- the maintenance company that
26 maintains the cameras cannot figure out why it slowly

1 changes. We have the same problem with security cameras
2 in our center as well.

3 Q. So the date and time, the day and time are off.
4 Are they off by a matter of seconds, a matter of minutes,
5 a matter of hours?

6 A. Generally, couple of minutes.

7 Q. So when you -- when we have Exhibit 57, if
8 you'll recall, the time stamp said November 8th -- the
9 date stamp said November 8th?

10 A. Dates are always correct. Years are always
11 correct.

12 Q. Also said 6:48?

13 A. Correct.

14 Q. Do you remember when you were, when you saw --
15 well, let me take a step back.

16 You saw that image 57 live on the screen;
17 correct?

18 A. Yes.

19 Q. When -- did 6:48 appear to be, roughly,
20 approximately the time you were viewing that image?

21 A. It was.

22 Q. Thank you.

23 I have no further questions.

24 No, I think that's it for us.

25 Madam Foreperson or the jurors, anyone have
26 questions?

1 GRAND JUROR: I do.

2 MR. NOEL: Go ahead, write them up, give them
3 to the Sergeant at Arms.

4

5 EXAMINATION

6

7 BY MR. NOEL

8 Q. All right. Some questions from the Grand
9 Jurors.

10 Does CAD prioritize calls independent of
11 personal answering?

12 A. It does based on call type. So if we dump a
13 medical aid, a structure fire, and a wildland fire, it's
14 going to basically put them in priority of medical aid
15 first, structure fire second, wildland fire third. Based
16 on life, property, environment.

17 Q. So that's after the support person, the call
18 taker, has entered that information into the system?

19 A. Yes.

20 Q. So it doesn't prioritize calls before you
21 answer them?

22 A. No. The captain, or the duty captain that
23 particular day dealing with that call, has the ability in
24 a command center to change the priority of those calls,
25 add resources to a specific call, or take away and
26 reduce. Dispatch centers do not.

1 Q. Are all seven CAD positions in the ECC manned
2 at all times?

3 A. No, they are not. General staffing in the
4 off-peak season or non fire season is three. Whether it
5 be one duty captain and two communications operators or
6 dispatchers; or two captains, one dispatcher. A total of
7 three people in the off-peak season. During fire season,
8 a minimum mandatory four and two 24-hour people wide
9 awake at night.

10 So there's three on the floor 24 hours a day,
11 seven days a week, whether it be a captain that's there
12 for -- when you're the duty captain, it's also your night
13 to stay. So if I have the duty captain role today, it
14 will be my 24-hour day to stay the night as well. And
15 I'll have the duty for tonight for my night shift.

16 Q. When significant events, for instance red flag
17 days occur, do you have additional staffing present in
18 the ECC?

19 A. Potentially, yes, we have the ability to bring
20 in possibly a fifth and sixth if needed, yes.

21 Q. And would that be just for the day or reacting
22 to some type of emergency?

23 A. It varies. Most of the time, Region, which is
24 our -- Region, or what we call OCC, the Operation Center
25 for -- there's two. There's one in the north and one in
26 the south. So in an event they want extra staffing,

1 Region will put out a message and an incident number to
2 tie back to that extra staffing; maybe more engines, more
3 dozers, more ECC help, things like that. That's all
4 mandated by north office in Redding. They want extra
5 people somewhere or extra equipment somewhere, they give
6 us a number to tie into.

7 Q. Does the CAD system auto centralize equipment
8 when particular pieces of equipment are out of service?

9 A. No. We have to physically move engines around
10 to maintain a level of staffing at a particular location
11 that we want.

12 Q. You stated that on a normal day you don't send
13 out air support until around 10:00 a.m?

14 A. Correct.

15 Q. This was not a normal windy day, it was not a
16 normal wind day, so why didn't you have air support
17 available earlier?

18 A. They had bases -- we did. They had certain
19 bases that, again, Region dictates which base will be
20 available for what we call "early up." And basically all
21 that takes is a phone call, which I made. So there was a
22 request from the incident commander to, in his words,
23 "get everything earlied up." I made that phone call to
24 Region and they got -- contacted those pilots and bases,
25 and that stuff showed up and was earlied up. I think we
26 had -- the air attack was over the fire at 8:02.

1 Q. Okay. Do you know what time you called to tell
2 the air attack to saddle up and get ready to move?

3 A. It was about 7:35, 7:40, somewhere right in
4 there.

5 Q. Do you know what time air attacks began air
6 operations that day?

7 A. Like I just stated, I believe he was over the
8 fire at about 8:02. Right at 8:00 o'clock. Just a few
9 minutes after.

10 Q. Now, you've been a professional firefighter for
11 29 years now?

12 A. Yes.

13 Q. Including your volunteer experience?

14 A. Uh-huh.

15 Q. A great deal of that was fighting wildland
16 fires. You said you were at Harts Mill, you were at
17 Bangor. What other stations were you at?

18 A. Robinson Mill.

19 Q. Robinson Mill. I'm sorry.

20 A. Biggs. I mean, I've worked everywhere. I've
21 worked Kelly Ridge, Palermo, Gridley, Schedule A,
22 Schedule B truck. I've done every aspect of our job
23 except prevention basically.

24 Q. In your professional experience, have you ever
25 seen a fire move or expand as fast as this one, the Camp
26 Fire, did on November 8th?

1 A. I've never seen anything like this. I've seen
2 fires move rapidly, consume everything in its path, but
3 I've never seen something as destructive and move as fast
4 as this did that day, no.

5 Q. So following up on that, we've got the Bloomer
6 9 Cam back up on the board. I'm playing it for the jury
7 to see that. You can see the smoke in the background?
8 It goes off. We'll save that for later.

9 All right. Madam Clerk, the questions.

10 Anything else?

11 (Counsel confer.)

12 [DISCUSSION OMITTED.]

13 MR. NOEL: Anything further?

14 We have to give Captain Hartshorn the
15 admonition he will be back again, assuming that there's
16 other areas in the case that we want to move into, other
17 avenues. He would also be testifying if, if the jury
18 should decide that they want to hear the coroner's
19 evidence.

20 GRAND JURY FOREPERSON: Captain Hartshorn, you
21 are admonished not to discuss or disclose at any time
22 outside of this jury room the questions that have been
23 asked of you or your answers until authorized by this
24 Grand Jury or the Court. The violation of these
25 instructions on your part may be the basis for a charge
26 against you of contempt of court. This does not preclude

1 you from discussing your legal rights with your own
2 attorney.

3 Mr. Hartshorn, what I have just said is a
4 warning not to discuss this case with anyone except the
5 Court, your lawyer, or the district attorney. Do you
6 understand?

7 THE WITNESS: I do.

8 GRAND JURY FOREPERSON: Thank you.

9 MR. NOEL: You are excused for now, subject to
10 recall.

11 And the next witness would be Captain McKenzie.
12 Summon him, and I'll get some other stuff.
13 Did we swear the witness?

14 GRAND JURY FOREPERSON: Not yet.

15 (GRAND JURY FOREPERSON swears in witness.)
16

17 CAPTAIN MATT MCKENZIE

18 having been called as a witness in
19 the matter now pending, having been first
20 duly sworn, testifies as follows:

21
22 THE WITNESS: Yes.

23 GRAND JURY FOREPERSON: Thank you.

24 You may have a seat.

25 MR. NOEL: Ready to proceed?

26 GRAND JURY FOREPERSON: Yes.

1
2 EXAMINATION
3

4 BY MR. NOEL

5 Q. Captain McKenzie, by whom are you employed?

6 A. Cal Fire.

7 Q. In what capacity?

8 A. Here in Butte County as a fire captain.

9 Q. How long have you been with Cal Fire?

10 A. About 21 years.

11 Q. What training do you have that qualifies you to
12 work for Cal Fire?

13 A. I went through the Butte Fire Academy for
14 firefighter and got my Cal Fire Firefighter 1, CFR back
15 then. So I went through the Butte Academy. And I've
16 been through Cal Fire's academy in Ione for both engineer
17 and firefighter; several other training courses and
18 classes, hundreds actually throughout my career.

19 Q. Walk us through your training and experience as
20 a Cal Fire employee over the last 21 years.

21 A. Okay. So if you get your Cal Fire Basic
22 Firefighter, you're able to be employed by Cal Fire as a
23 Firefighter 1, the entry level position, which I obtained
24 that cert through Butte Fire Academy independent. That's
25 just something you independently go through Butte
26 College, pay for it yourself, then get hired with Cal

1 Fire. Then once you're hired with Cal Fire, you either
2 -- there's several different mandatory training courses
3 that you have to go through -- EO, defensive driver,
4 and stuff like that.

5 Then to become a Firefighter 2, you have to go
6 to the academy in Ione and get more formal training --
7 ropes, knots, ladders, over the edge rescues, vehicle
8 extrication training -- all the required courses.

9 And then to become an engineer or a
10 driver-operator, what we call a company officer, you have
11 to go back to the academy for another six weeks. First
12 one is six, the second one is six weeks. So the
13 driver-operator, what we call the company officer
14 academy. Pumping; you have to go through driving
15 operation; defensive driver; public operations; what we
16 call WUI -- Wildland, the Urban Interface firefighting
17 that we do. There's actually a whole scenario. You have
18 to go protect a fake village. Training continues with
19 just annual training; EMT, keeping your EMT up. It's not
20 required that you're an EMT, but you get EMT when you
21 come out of Butte Fire Academy. But we have to have -- I
22 can't remember -- it's a module, it's like Basic First
23 Aid that's a minimum requirement.

24 Q. How did you get to be a captain?

25 A. Promoted through the ranks. I started in
26 Oroville here. I'm from Oroville. And I started as a

1 volunteer in 1994 at this station right around the corner
2 in Thermalito. And I just promoted through the ranks,
3 made myself competitive by going and obtaining different
4 training courses, paying for it myself. It took a while.
5 I didn't want to promote because I wanted to be at my
6 hometown station, which served me well for about 15
7 years. And I've been up in the Jarbo Gap Concow station
8 now for five. But I promoted throughout the years.

9 There's something called a temporary
10 appointment, and that's a temporary appointment that you
11 don't have to compete for. You become a captain but you
12 don't have to compete for the position. You don't -- you
13 didn't actually do an interview to get it or a test.
14 It's just you're basically, you've been an operator for
15 three years or more, you're off of what we call JAC,
16 which is the joint apprenticeship program where there's
17 -- while you're an engineer, there's several different --
18 there's a whole book, three years' worth of training that
19 you have to get through. Once you get through that and
20 you've journaled, you're able to be a captain.

21 So I went to the Magalia -- well, it was
22 Stirling City, Magalia, relief position as a captain in
23 2008. And then in 2009 I was in Magalia the whole time.
24 2010, Feather Falls. 2011 Feather Falls. These are all
25 temporary appointments with limited term. Then I got my
26 permanent captain's job, I had to compete for the

1 position, in 2014. And that was the -- getting, you
2 know, permanent employment as a captain. So before, I
3 would be a captain in the summertime and back to my
4 engineer position in the wintertime. As of 2014, I went
5 permanent full-time captain at the Concow Jarbo Gap
6 station.

7 Q. So what is your current assignment?

8 A. Concow Jarbo Gap Fire Captain.

9 Q. What station are you based out of?

10 A. Station 36. That's the Concow Jarbo Gap
11 station.

12 Q. How long have you been at the Concow Jarbo Gap
13 station?

14 A. Five years.

15 Q. Were you on duty on November 8th, 2018?

16 A. I was.

17 Q. How important is weather to a fire captain?

18 A. Very important. It's the -- our morning
19 briefing pretty much at the breakfast table, you know.
20 We watch the news, we watch the weather, but we also get
21 plenty of updates from our department; e-mails, you know,
22 safety notifications that they would like us to go over
23 with our crew, which we do. But it's always, it's always
24 important to us. Weather is pretty much a big driving
25 force in the way fires behave.

26 And in my particular response area, there's

1 always wind, and we know it. They call it the Jarbo
2 zephyrs. And it's taught in our Cal Fire Academy down in
3 Ione. It's just normal down-canyon winds. Everybody
4 gets down-canyon winds. At night it gets cool. You
5 know, the air sinks and starts to go down canyon. Where
6 it's worse at our station is that the river makes a big
7 bend, hence the name Big Bend Road, and if you look at it
8 from a topo map, it makes a -- Big Bend comes back and
9 then goes down to Lake Oroville. Well, all of that
10 down-canyon wind compresses there because it's trying to
11 make that corner, and spills up and over and goes into
12 the community. So it's always strong. And it's always a
13 concern. And we talk about it daily.

14 Q. Describe for us your schedule, your work
15 schedule, as a captain at the Concow Jarbo station.

16 A. Okay. I work three days on, four days off. My
17 counterpart, my partner, is the same. Then we have a
18 relief day. So there's always a station captain there or
19 company officer. But I work three on, four off.

20 Q. So when did you come on prior to November 8th,
21 2018?

22 A. Wednesday morning at 7:15.

23 Q. So that would have been November 7th?

24 A. Correct.

25 Q. At 7:15 a.m.?

26 A. (Nods head.)

1 Q. And while you were on duty, you are living at
2 the station; correct?

3 A. Yes. Yes. It's, it's a 72-hour shift.

4 Q. So you're on for your entire 72-hour shift.
5 When you're not out working, you're in your station?

6 A. Correct.

7 Q. So you were aware that there was weather issues
8 coming up on the 8th?

9 A. Yeah, we, we had an email come out several days
10 prior, said that forecasted strong winds and a front.

11 I also had communications with my old partner
12 that works in Magalia who was on duty for that, for the
13 fire as well, that just sent me a quick text message.
14 And I can't remember the miles per hour. He said,
15 "Strong winds forecasted in Jarbo tomorrow." He just
16 sent that to me.

17 And I sent him one back that said, "Great," or
18 "Yay," I can't remember what I said.

19 But it's not that -- it is a concern because
20 they're already strong, and when people say strong winds,
21 that usually means double, then 20 miles an hour, 25
22 miles an hour, what we normally get at night.

23 Q. At that point, you had been assigned to the
24 Jarbo -- Concow Jarbo Station 36 for almost five years;
25 correct?

26 A. Correct.

1 Q. You were used to the winds?

2 A. Used to the wind. It was also my second due.
3 So when I worked here in Oroville, in Thermalito, that
4 was my second due. So if they got a fire, I was the
5 second -- well, there's two engines that run out of that
6 station. Essentially, I would be the backup coming from
7 the valley for 15 years. And I've been to many, many
8 fires up there, coming in second in or third in.

9 Actually burned over in the Poe fire up there
10 in 2001. We had our engine overran by fire and burned
11 the engine off, the back end of the engine. So I knew --
12 I was very reluctant to even interview for that job, that
13 position, because I knew what was up there. But it's
14 also kind of a -- you want it to be a feather in your
15 cap, too. You want to stop those, you want to be able
16 to stop those fires up there, you know, because they do
17 get bad quick. And we had a lot of success for a lot of
18 years doing that.

19 Q. You want to be the one to be known for taming
20 the Jarbo winds?

21 A. Correct. Yeah. You want to be able to get
22 there, and people, "Wow, that was a good stop. Those
23 were strong winds and steep country, and you guys made a
24 good stop." Several of those have happened. But
25 sometimes the weather dictates what you're going to do,
26 how you're going to do it.

1 Q. So based upon the weather forecast on November
2 7th, did you do anything to prep?

3 A. We, we spoke, we discussed -- we know our
4 target areas and what, what has happened in the past when
5 the strong winds come in and what the fire does. Fire at
6 night goes faster downhill than it did going uphill
7 during the day because it's being pushed by the winds.

8 So we talked about our areas, you know, like
9 all of our escapes, the community's safety zones and
10 such. And, yeah, we definitely discussed, you know, our
11 target is usually the community of Concow itself. If
12 something gets established up there, those winds just
13 push it right down in the community. So we did talk
14 about, you know, where we would go, where would we try to
15 fight it if something happened or how we'd anchor in. We
16 talked about tactics for the next day. Well, the next
17 week, because I think it was scheduled to -- I mean, they
18 were forecasted to blow hard for a few days. So --

19 Q. So when, when we say you live at the station
20 for 72 hours during your shift, do you -- you are
21 literally living at the station; correct?

22 A. Correct. We have a barrack. I have my own.
23 The captain has their own room. It's attached to the
24 kitchen. So it's a small room; a bed, a bathroom,
25 television, toilet, that type of deal. It's attached to
26 the kitchen. And then below the kitchen is actually the

1 TV room, laundry room, and barracks. That's where all
2 the firefighters and engineers sleep is there. We have
3 -- it's your home for three days. Well, in the
4 summertime it's your home for about a month. Sometimes
5 you don't get off for about a month.

6 Q. Why?

7 A. Staffing patterns, fires in other areas,
8 predicted, projected forecasts. Sometimes we do staffing
9 patterns, hold all personnel on duty so that we don't
10 have -- so that we can staff up extra equipment in case
11 of an emergency, something like the Camp Fire or
12 whatever. Or, you get stuck on -- because we sent five
13 engines or ten engines to another unit, another county,
14 to fight a fire, we just don't have the personnel to
15 relieve you.

16 Q. Right. So for a good example from last summer,
17 the Carr Fire.

18 A. Carr Fire, correct. We were all held on duty
19 for quite a while. If we weren't held on duty, we were
20 on the fire line. That soaked up a lot of resources.

21 Q. So firefighters through Butte County, from Cal
22 Fire Butte County Fire, were sent up to Redding to help
23 with the Carr Fire?

24 A. Yes.

25 Q. And then the rest of you that had to stay here
26 had to stay on duty to cover for the guys who were up in

1 Redding?

2 A. Yes. Yep. Sometimes we'll put on a, the state
3 will put on a staffing pattern, and it will hold all
4 personnel on duty the entirety of the state of
5 California. Or it can be a northern region staffing
6 pattern. So everything from, say, Fresno north is held
7 on duty. Or it can be a southern region staffing
8 pattern. Or it can be a local staffing pattern. Our
9 unit chief can decide, hey, we're going to have these
10 local winds, we are going to do our own staffing pattern.
11 And they have to get it approved by region for that to
12 happen.

13 But, yeah, we have what's called an
14 out-of-county bag, and you pack like five different pairs
15 of uniforms and some off duty clothes so that you can be
16 prepared to be on the fire line for days. And the same
17 thing goes for the station. I mean, you have your off
18 duty wear at the station. Like maybe 7:00, 8:00 o'clock
19 you kind of try to relax, but you're, you're on duty. I
20 mean, you're -- we tell the guys come to work and be
21 ready to be on the Mexican border in 12 hours. Because
22 we can be from northern California all the way down to
23 San Diego in no time. So summertime is that way. From
24 the Oregon boarder all the way down to the Mexico border
25 is what we cover from California and some parts into
26 Nevada first due. So it's -- yeah. I mean, you're

1 prepared to stay for a long time.

2 Q. How many times in your career have you been
3 sent out of county?

4 A. Hundreds. I really couldn't, I couldn't count.
5 A lot.

6 Q. It's a common thing; correct?

7 A. Very common, yeah.

8 Q. You've been sent out of state?

9 A. I've been into Nevada once. We went to Montana
10 in 2000, I believe. We sent 10 or 15 engines to Montana.
11 And we were on the rotation, so we sent the engines. The
12 crew went on the engines to fight the fire. They were
13 going to stay for longer than our two-weeks commitment
14 for our duty time. They left engines there, bussed the
15 personnel out, and bussed more personnel in to get, to
16 relieve them.

17 The Story Fire happened when it was our
18 rotation, so we got stuck on the Story Fire. So I didn't
19 make it to Montana, but yes, I've been out of the state
20 into Oregon and into Nevada.

21 Q. So I'm assuming at some point on November 7th,
22 the evening of November 7th, you went to bed?

23 A. Went to bed, yeah. Can't exactly remember. I
24 go to bed pretty early. It's kind of -- I have that
25 freedom because I have my own room, my own TV, so it's
26 easier to just kind of go in there and relax. But I'm

1 not sure exactly what time I went to bed.

2 Q. Do you recall what time you woke up?

3 A. Yeah, before 5:00, just before 5:00. The wind
4 woke me up.

5 Q. What do you mean the wind woke you up?

6 A. So on -- I sleep very light. I'm used to the
7 wind, but it was -- I kind of woke up kind of a little
8 bit confused because I was just coming out of being
9 asleep, and I thought it was raining. It was pine
10 needles hitting the roof. And the gust was a roar. It
11 was like -- usually it's kind of a gust every now and
12 then you'll hear, but -- no big deal -- but it was like a
13 sustained roar with pine needles hitting the roof. So it
14 kind of took me a minute, I shook it off and figured out
15 it was the wind that woke me up.

16 Q. So when you first woke up it sounded like it
17 was raining outside?

18 A. Yeah.

19 Q. Did you realize, learn at some point that that
20 was pine needles pelting the roof?

21 A. Yeah. We have a metal roof, and it was
22 obviously amplified. But it, it was weird because it
23 sounded sustained. Like, I mean, it was that many pine
24 needles hitting the roof. Of course, that time of year
25 pine needles are falling, but --

26 Q. You've been at Concow Jarbo Station 36 for five

1 years. Did you ever experience that before?

2 A. That's probably the strongest I've ever seen or
3 heard it. We've had big gusts in the wintertime, but in
4 the summertime you're kind of -- you're on edge anyways.
5 You know, just it's dry, it's hot, and the wind's
6 blowing, you're, "Oh, please, nobody do anything stupid."
7 But in the wintertime I've seen those winds, but not
8 sustained. Winter storms come through, and we will get
9 gusts 60, 70 miles an hour up on the ridgetops and stuff.
10 And you feel it there, but never in the summertime. I've
11 never felt that in the summertime or witnessed it or been
12 a part of it.

13 Q. So you said this was a sustained, consistent --

14 A. Roar, yeah. Because there's a bank behind my
15 room. So there's a building, a driveway, and a bank,
16 kind of a steep bank. And it channels the wind through
17 there. So it was just kind of like a sustained roar
18 through that little, that little section.

19 Q. So once you woke up, what did you do?

20 A. Well, before, the night before -- it's not
21 typical for the captains or engineers to cook. The
22 firefighters do it. Their third day on is their cook
23 day. They have to prep all the meals.

24 I like to cook, so the night before I threw a
25 corned beef in the crock pot. I was going to do corned
26 beef hash for the crew. So I woke up, I took a shower --

1 the wind woke me up, I took a shower, I went in there and
2 started cutting potatoes, got coffee going, kind of get
3 breakfast thing going, watching -- turned on the news,
4 drinking coffee, and prepping breakfast.

5 Generally speaking, everybody -- well, not
6 generally speaking, the rules are you're at the breakfast
7 table in uniform at 7:00 o'clock in the morning.

8 Q. So you're in the kitchen starting to get
9 breakfast ready, you got the news on, does something
10 attract your attention?

11 A. My phone lit up. We have, we have what's
12 called "quick call" that goes off when we have a call.
13 So the command center gets a call, they activate your
14 tones for your station. Well, at night we mute the radio
15 so we don't have to listen to everybody else's calls.
16 But even though the radio is muted, as soon as your tones
17 go off, your buzzer goes off, and it unmutes the radio.

18 We also have CAD pages. So the dispatch system
19 sends a page to your phone of the incident information,
20 Google Map link to where it's at, and all the resources
21 that are assigned.

22 My phone was sitting face up, and it
23 illuminated. And I kind of looked over at it and it said
24 -- I have the actual CAD page, but it said, it said
25 "Jarbo Gap vegetation," and it had the incident location.
26 And then seconds after, the buzzer goes off.

1 Sometimes the buzzer goes off before you get
2 your CAD page and sometimes you get your CAD page before
3 the buzzer goes off. It just depends. This one they
4 launched it pretty quick, I think, so everybody probably
5 got the CAD page quickly.

6 Q. On the morning of November 8, 2018, you
7 received a CAD page first?

8 A. I did. I received the CAD page first, followed
9 shortly thereafter by the buzzer going off. And I
10 immediately went to the backdoor of the kitchen and
11 opened the backdoor of the kitchen, and the wind pulled
12 the door out of my hand. It opens outward into the wind,
13 and it pulled it out and hit the rail behind it and
14 stopped it.

15 Every time there's been a fire in the canyon
16 that I've been on duty and the winds are strong, they're
17 always strong, or there's any measurable amount of wind,
18 you smell it at the station before, usually before it's
19 even reported, because there's no cell service in the
20 canyon and, you know, very little time to get to cell --
21 it takes a long time to get to cell service. So usually
22 you smell it before it's reported. If somebody's seen
23 it, they're trying to report it, but if it's not Cal
24 Trans or if it's not PG&E, or not somebody in a big rig
25 with a radio, it's just not reported.

26 But I didn't smell anything, and I didn't see

1 anything. So I was kind of, oh, well, maybe a false
2 alarm. But, you know, every time we hear "vegetation,"
3 we get moving pretty quick.

4 Q. All right. So let's back up a little bit.

5 A. Yes.

6 Q. So you're in the kitchen, you're cooking
7 breakfast, your phone lights up, and you look down and
8 you have your CAD page?

9 A. (Nods head.)

10 Q. Do you recall what time that occurred?

11 A. 6:29 and 55 seconds, approximately.

12 Q. And then when did your phone start going off?

13 A. Maybe 30 seconds, a minute later. I'd say
14 probably closer to 30 seconds.

15 Q. So you said once that you saw that there was a
16 report of fire up the canyon, you went out, you started
17 to go outside to check it out?

18 A. Well, I needed to go -- I was -- didn't have my
19 boots on, so I had like just house shoes on. I needed to
20 go put my boots on, which were in my room. So I was
21 going that direction anyways. But that's usually the
22 first thing I do up there when I hear there's a fire in
23 the canyon, I kind of like poke my head out, okay, I do
24 smell something, smell something up there. But it was on
25 the way to my room, going outside.

26 Q. So you said you opened the exterior door to

1 poke your head out?

2 A. Poke my head out and head to my room. And the
3 wind pulled the door out of my hand. And I kind of took
4 note of that like, okay, yeah.

5 Q. Is that -- the wind pulling that door out of
6 your hand, was that a significant event?

7 A. Yeah. Never has happened before to me up
8 there.

9 Q. How long did it take you and your men to get
10 out of the station at that point?

11 A. Four, maybe four minutes. Three, four minutes
12 reaction time. I think we even had somebody in the
13 shower. So that sucks when that happens. But usually, I
14 mean, we have -- we had guys lacing up their boots in the
15 engine. I'm looking over, they don't even have their
16 boots all the way on yet. So they were moving pretty
17 quick. Some people are half-dressed, I mean, as far as
18 their safety equipment. They might have their Nomex
19 pants on, one arm into their Nomex top, and putting on
20 their boots.

21 Q. What's Nomex?

22 A. Nomex is a protective outerwear that we use
23 while we're fighting fire.

24 Q. So you guys got up and got out very quickly?

25 A. Very quickly.

26 Q. Were on the road by 6:35?

1 A. Yeah. Yeah. And two engines. We run two
2 engines out of Jarbo Gap station, each staffed with three
3 individuals.

4 Q. What were your engine numbers that day?

5 A. 2161 and 2176.

6 MR. NOEL: Madam Foreperson, this is probably a
7 great time to break for lunch.

8 GRAND JURY FOREPERSON: Okay. Do we need to
9 admonish before lunch?

10 MR. NOEL: Sure.

11 GRAND JURY FOREPERSON: Okay. Captain
12 McKenzie, you are admonished not to discuss or disclose
13 at any time outside of this jury room the questions that
14 have been asked of you or your answers until authorized
15 by the Grand Jury or the Court. A violation of this
16 instruction on your part may be the basis for a charge
17 against you for a contempt of Court. This does not
18 preclude you from discussing your legal rights with your
19 own attorney.

20 What I have said, have just said is a warning
21 not to discuss the case with anyone except a Court, your
22 lawyer, or the district attorney.

23 THE WITNESS: Understood.

24 GRAND JURY FOREPERSON: Okay. Thank you.

25 MR. NOEL: All right. Break until 1:30.

26 GRAND JURY FOREPERSON: 1:30, yes, please.

1 (Lunch break.)
2 MR. NOEL: Back on the record.
3 Everyone's present and accounted for.
4 All right. Want to summons Captain McKenzie
5 back?
6 He's already been admonished.
7 Q. (By MR. NOEL) Captain, you're still sworn,
8 you're still under oath. You understand that?
9 A. Yes, sir yep.
10 Q. All right. When we left off at lunch, you had
11 gotten the call and you and your crew were heading out on
12 fire. You said it took you four to five minutes from
13 when you got the initial call until you guys were out the
14 door?
15 A. (Nods head.)
16 Q. Remember, you have to answer verbally.
17 A. Yes.
18 Q. So the court reporter can't take down head nods
19 or anything.
20 You said it was two engines; correct?
21 A. Yes.
22 Q. Which engine were you on?
23 A. 2161.
24 Q. And what was the other engine?
25 A. 2176.
26

1 (Grand Jury's Exhibit 120 was marked for identification.)
2
3 Q. All right. So you have a photo now in front of
4 you that is marked as People's Exhibit No. 120 for
5 identification. Do you see that photograph?
6 A. I have it, yes.
7 Q. Do you see what's depicted in that photograph?
8 A. I do.
9 Q. Is that the same photograph that's shown on the
10 big board?
11 A. It is.
12 Q. Do you recognize what's shown in that
13 photograph?
14 A. I do.
15 Q. What is shown in that photograph?
16 A. My fire station and Scooter's across the
17 street.
18 Q. Okay. Where is your fire station located?
19 A. If you're looking at the picture, it's on the
20 right-hand side, it's that group of three buildings.
21
22 (Grand Jury's Exhibit 121 was marked for identification.)
23
24 Q. So let's move on to 121. You should have that
25 photo in front of you?
26 A. I do.

1 Q. That photo should be identical to 120 with one
2 exception.

3 A. I got a pin Jarbo Gap station.

4 Q. So now we have a pin marking the Jarbo Gap Fire
5 Station?

6 A. Yes.

7 Q. So that's where you and your crew started your
8 day?

9 A. Yes.

10 Q. That's where you were cooking breakfast when
11 the alarm went off?

12 A. Yes. On the far right building would be the
13 kitchen, yeah.

14 Q. You came out of your station and what's the
15 roadway right there in the middle?

16 A. That's Highway 70.

17 Q. All right. So did you get on Highway 70?

18 A. Yeah. We have a, kind of a looping driveway,
19 kind of J-shaped driveway that heads down there. So I,
20 yeah, left the station, drove down the driveway, made a
21 right onto Highway 70.

22 Q. All right. A right takes you upcanyon?

23 A. Yes.

24

25 (Grand Jury's Exhibit 122 was marked for identification.)

26

1 Q. All right. Let's move on to the next Exhibit,
2 122.

3 Do you recognize what's depicted in Exhibit
4 122?

5 A. I do. The pin is the Jarbo Gap Fire Station
6 with Highway 70 route up towards Pulga.

7 Q. Is Pulga marked?

8 A. It is.

9 Q. How is Pulga marked?

10 A. With a red dot and the name Pulga underneath
11 it.

12 Q. So were you told in the dispatch where you were
13 going?

14 A. Camp Creek Road, I believe. And the access to
15 Camp Creek Road is in the community of Pulga.

16 Q. Is that an area you're familiar with?

17 A. Very familiar.

18 Q. How are you familiar with it?

19 A. We go down in there and probably 10, 12 times a
20 year for different things, just to visit her name's Betsy
21 down there, see how they're doing, see if they have any
22 questions for us.

23 Area orientation we go down there quite a bit.

24 We also access that area for river rescues.

25 Sandy Beach is not that far away from Pulga. It's on the
26 opposite side of the river, on the east side. So when

1 people would be injured on that side of the river, we'd
2 have to access through Pulga and then walk the railroad
3 tracks down to Sandy Beach.

4 Q. Now, you mentioned a woman named Betsy?

5 A. BetsyAnn. I forgot her last name, but she's
6 pretty much the owner of Pulga. Pulga is a community,
7 but she's, she owns all the buildings there. I don't
8 know. They sold the town not that long ago and she
9 bought it.

10 Q. She bought the entire town?

11 A. It's an old PG&E, I believe, town.

12 Q. All right. So you leave the station and you're
13 headed up the canyon past Pulga?

14 A. The destination was Pulga in my mind initially,
15 if the fire was off Camp Creek road, yes.

16 Q. Okay. So how long of a drive is that?

17 A. I'd say maybe 15 minutes.

18 Q. And how long -- well, actually I shouldn't
19 assume anything. You're in there in your fire trucks.
20 Are you just driving normally or are you responding --

21 A. Legally. I'm driving normal. The canyon
22 dictates how fast you drive, obviously. So there are
23 some areas of the canyon I can't go 65, or I can only do
24 65 for a very short time. So it's windy. And we're
25 going as fast as we can safely keep the engine on the
26 road.

1 Q. Are you running with your lights and siren on?
2 A. Lights, sirens, yes.
3 Q. Okay. So you've got all your emergency stuff
4 activated?
5 A. Yes.
6 Q. At this point in time is it light or dark?
7 A. It's pretty dark. Yeah.
8 Q. You said that when you first got the call when
9 you were in the kitchen cooking, one of the first things
10 you did was stick your head out the door to see if you
11 could smell smoke?
12 A. Yes.
13 Q. As you're driving up the canyon, do you smell
14 smoke or see any signs of fire?
15 A. No. Not until just short of Pulga.
16 Q. Where?
17 A. There's a bend in the road. It's not really --
18 can't really -- yeah, I guess right before it straightens
19 out, just after the -- well, hard to see without --
20
21 (Grand Jury's Exhibit 123 was marked for identification.)
22
23 Q. Let's move on to 123.
24 A. Okay.
25 Q. That may make it a little easier.
26 A. Well, 123 is showing kind of the Pulga and the

1 access road to Pulga and Camp Creek. It would be -- so
2 at the Y -- you see the white line that depicts Pulga
3 Road and the yellow line that depicts Highway 70. At
4 that Y it would be back towards the station a little
5 ways.

6 On 122, there's a bend in, there's a bend on
7 the mountain and it straightens out and goes into Pulga.
8 Correct.

9 Q. Right here?

10 A. Right around back there. Right around in
11 there. That's kind of where -- my firefighter was in the
12 backseat and he said, "Oh," blank, "I see it." Because
13 we hadn't seen or smelled anything. And I was paying
14 attention to the road. I had to kind of look down and
15 look up and then I saw it.

16 Q. Right as you come around that bend here --

17 A. Yep. Yep.

18 Q. -- coming around the mountain, that's where
19 from Highway 70, the Highway 70 bridge first comes into
20 view?

21 A. The Pulga Bridge, yeah.

22 Q. The Pulga Bridge?

23 A. Uh-huh.

24 Q. Is that about the area?

25 A. That's about right, yeah.

26 Q. You said you're driving?

1 A. I'm driving.

2 Q. The captain; right?

3 A. Yep.

4 Q. So one of the firefighters in the back of the
5 truck spots the fire and points it out?

6 A. Yeah, rear passenger seat. As I was making
7 that turn, he's got a pretty good view looking off to the
8 right, and he saw it. The front seat firefighter's
9 buried in maps, so he's not even looking at the road or
10 anything. He's looking at -- I said get up -- pull up
11 Pulga and get it in front of you. We have route-in maps.
12 And he's looking at maps. So the rear seat firefighter
13 saw it first, before I did.

14 Q. All right. Back to 123. Tell us what we're
15 looking at in this map.

16 A. So it's the access to Pulga Road just before
17 Pulga Bridge. Or I'm -- the access to Pulga, being Pulga
18 Road, just before Pulga Bridge. And just a little
19 further up from that it looks like that's Four Trees Road
20 on the right, that white line that goes off on the right.

21 Q. This one right here?

22 A. Yep. That's Four Trees Road. Just past Four
23 Trees Road would be the Cal Trans yard.

24 Q. Okay. So down here the white line represents
25 Pulga Road?

26 A. Correct.

1 Q. And Pulga Road comes off Highway 70 right
2 before the Pulga Bridge?

3 A. Directly at the bridge, yeah. Right as the
4 bridge railings start, Pulga Road takes off to the left
5 if you're going upcanyon.

6
7 (Grand Jury's Exhibit 124 was marked for identification.)

8
9 Q. So now we have 124 up there. Should be
10 identical to 123.

11 A. Yeah, the only difference being it's showing --
12 I'm not exactly sure -- what does the I-S stand for?

13 Q. Intersection.

14 A. So that shows -- the only thing different is
15 the pin showing the intersection of Pulga Road and
16 Highway 70.

17 Q. All right. So now that intersection is clearly
18 marked.

19
20 (Grand Jury's Exhibit 125 was marked for identification.)

21
22 Q. Let's go on to 125. Do you recognize what's
23 depicted in the photograph 125?

24 A. Yes. That's the access to Pulga, being that is
25 Pulga Road.

26 Q. Okay. So we're seeing something about a split

1 in the road. The road going off and onto the bridge here
2 to the right would be --

3 A. Highway 70.

4 Q. And the road splitting off here on the left of
5 the photograph?

6 A. Pulga Road.

7 Q. Is Pulga Road.

8 Okay. So as you're going around the bend, your
9 firefighter spots the fire and points it out to you?

10 A. (Nods head.)

11 Q. Where do you see fire initially?

12 A. I see a glow, and it's hard to tell exactly
13 where. I actually thought it may be on the east side of
14 the road. And it's kind of difficult up there. Highway
15 -- they'll tell us eastbound Highway 70, because if you
16 do look at Highway 70 when you get up in the mountains,
17 it predominately goes east. But to me, growing up in
18 Oroville, Highway 70 runs north and south to me. But I
19 thought it was on the east side of the road.

20 Q. So the east side, for instance, on this
21 photograph marked 125 would be to the right; correct?

22 A. To the right. Yes, on the right side of the
23 river instead of left side of the river. I thought it
24 was -- just kind of the way it was lining up with the
25 shoulder of the mountain that comes down there, I believe
26 that's the shoulder of Big Bar Mountain, that kind of

1 comes down, and then the mountains off in the back, I
2 couldn't exactly tell which side of the river it was on
3 until I got pretty much onto the bridge.

4 Q. Okay. And that's this bridge right here?

5 A. Yes.

6 Q. That's the Pulga Bridge?

7 A. That's the Pulga Bridge.

8 Q. What's down below the Pulga Bridge?

9 A. The Feather River. And there's, underneath
10 that there's a train bridge. The train runs along
11 Highway 70 as well.

12 Q. So you said you couldn't really tell which side
13 of the river or which side of the road the fire was on
14 until you got onto the bridge?

15 A. Uh-huh.

16 Q. Tell us what you did.

17 A. So I got onto the bridge and slowed down. If
18 it was on Camp Creek Road, I knew I couldn't, I couldn't
19 access it on Camp Creek Road. The only option would be
20 to leave the area, go all the way up top Concow Road, and
21 come in Dixie Mountain from the top. Obviously knowing
22 what we know now, that would have been impossible. There
23 wouldn't have been enough time to do that.

24 Q. So it's -- stop you right there. Why couldn't
25 you access on Camp Creek?

26 A. So Camp Creek Road has been washed out,

1 semi-washed out in many places; lots of rock slides, and
2 it's pretty rough. ATVs, smaller vehicles, Jeeps and
3 such could get up there. Utility vehicles, they could.
4 But with a fire engine, I've been up that road four or
5 five times in a fire engine in the past, and I'd make my
6 crew get out, fold my mirrors in, and prop my door open
7 in case I start to go down by the river, I could bail
8 out. They're out in front of me doing this: "Go, back
9 up, two or three inches on the right side." That's two
10 or three inches you're going to start going, you're going
11 to hit the railroad tracks or go into the river. And
12 you've got to fold the mirrors in because the rock wall
13 comes out in so many places that you can't avoid it or
14 else you'll roll over. So you've got to fold the mirror
15 in and cross your fingers. And there's no place to turn
16 around. So if you do get in a bad spot, you have to back
17 -- what you just went forward, you have to back down
18 that.

19 Q. As a fire captain, what do you consider getting
20 into a bad spot?

21 A. You never should do a frontal assault on a fire
22 unless you have all your ducks in a row. That being you
23 have aerial assets that are, that can save you; have a
24 way out, you have an escape route; or you have a
25 temporary refuge area that you can escape to and survive
26 without using your fire shelter.

1 So that would have been a frontal assault on
2 this fire with no place to turn around and no safety
3 zones, nothing. So we wouldn't have been able to back
4 out fast enough if we were going to get chased by the
5 fire. So we would have been on foot, with our fire
6 shelters, running and abandoning the engine. Then the
7 engine would block up the road for whatever else, smaller
8 vehicles could get up there.

9 So all around it's a -- when I first started up
10 there, I would go, I would take -- I would take the guys
11 up there on area orientation, and we'd take a utility
12 vehicle with us, we'd park the engine in the community of
13 Pulga, all hop in the pickup, and I'd take them up Camp
14 Creek Road to the actual Camp Creek. And it's even
15 sketchy in a truck, small truck. But I want to impress
16 upon them that if you're with another operator, encourage
17 them not to take this road. I want you to see how bad it
18 is so that you don't, so that you can talk somebody out
19 of it. Because you get these gung ho people that are
20 straight out of the academy, "I can make it. I can do
21 it." Well, you can try and then you're going to screw up
22 in a big way and there's no taking it back. So yeah.

23 Q. You might make it in, but you might not be able
24 to get out?

25 A. You might not be able to get out.

26 The last time it took me about an hour to go a

1 mile, then we finally called it quits. There was one
2 wide spot I found, and the chief came and picked me up.
3 It was for a lightning-struck tree, but it was raining.
4 Battalion Chief, actually Chief Joe Tapia picked me up.
5 And another four miles up that road we found the tree and
6 decided to come back. And the volunteers -- it's an
7 F-550 type 6 pickup pumper -- we downstaffed the engine
8 the next morning and took that up there because it could
9 access it at the time. Then the road got worse. That
10 was years ago.

11 Q. Well, isn't the river right there?

12 A. It gets close to the river in some spots, then
13 others it's quite a ways above the river.

14 Q. So it would be quite a bit of a run or a hike
15 if you had to get out quick --

16 A. Yes.

17 Q. -- to the safety of the road?

18 A. Yeah.

19 Q. So when you, when you got out in the middle of
20 the bridge, what did you see?

21 A. I could kind of get a better idea of where it
22 was. Now I'm sure I can't make it, I can't drive to it.
23 So now I need to see exactly what, exactly where it is
24 and exactly what it's doing. So I wanted to get parallel
25 to it. So I drove up Highway 70 to the Poe Dam.

26 Q. Okay. So from the bridge you could tell that

1 the, that the fire was on the Camp Creek side of the
2 river?

3 A. Yes.

4 Q. Okay. So you know at that point you're not
5 going to be able to get to it?

6 A. Yep. So the options going through my head is
7 either do a long hose lay up Camp Creek Road. Once
8 again, we're doing a frontal assault on a fire that has
9 no anchor point. Don't even have enough hose to do it,
10 or water. And I know I can't park across the highway and
11 swim across the river with my hose and start a hose lay.
12 It was just, it was just absolutely in the worst possible
13 spot because there's just no access. And you're looking
14 at it from here to the door, it's, "Oh, I can't get to
15 it." Not from here to the doors, but it's across the
16 river and you're just -- and you can't do anything. If
17 it was a creek you might be able to do something, but
18 it's a river and you can't do a hose lay across a river.

19 Q. Were you able to determine from the bridge
20 where the fire was in relation to the community of Pulga?

21 A. Not really from the bridge. I mean, I had an
22 idea that it was, that was probably going to be the first
23 thing that was impacted by this fire based on the way I
24 could see the wind was blowing. The column was not -- I
25 couldn't see the wind blowing, obviously -- the column,
26 which way the smoke column was laying over or heading.

1 But it was pretty evident when I got to the fire, and I
2 could put myself right where it is and kind of look where
3 it's going. And then I knew it was headed towards Pulga
4 first, then Concow.

5 Q. Okay. So you said you next went to the Cal
6 Trans yard?

7 A. Yeah, we kind of moved up to the Cal Trans
8 yard.

9

10 (Grand Jury's Exhibit 126 was marked for identification.)

11

12 Q. Let me stop you. We've got up in front of us
13 Exhibit 126.

14 A. Okay.

15 Q. Is that the exhibit you have in your hand?

16 A. I do. I have 126. And it shows the Cal Trans
17 yard and Camp Creek Road across the other -- well, Pulga,
18 shown at Pulga Road, but I know it as Camp Creek Road.

19

20 (Grand Jury's Exhibit 127 was marked for identification.)

21

22 Q. Okay. So let's go on to 127. You have 127 in
23 front of you?

24 A. I have it.

25 Q. What's the difference between 126 and 127?

26 A. It's pinned with the name of the Cal Trans

1 Pulga station.

2 Q. All right. So the location of the Cal Trans
3 Pulga station is now marked?

4 A. Yes.

5 Q. All right. So we've got the yellow line here
6 is representing Highway 70?

7 A. Yes.

8 Q. And this white line on the other side -- well,
9 back up. Down here, you really can't see it, running
10 parallel to Highway 70, what is that?

11 A. I'm sorry? Where are you?

12 Q. Right in here.

13 A. Sandy Beach is down there.

14 Q. But in general, this whole area between Highway
15 70 -- well, what are these things?

16 A. Those the railroad tracks.

17 Q. What is this running between Highway 70 and the
18 railroad tracks?

19 A. The river.

20 Q. That's the Feather River. Then on the other
21 side above the railroad tracks there's the white line?

22 A. Yes. That's shown here as Pulga Road.

23 Q. Okay. And what is this area over here in the
24 middle left-hand side?

25 A. That is the actual community of Pulga.

26 Q. Okay. So this little cluttering of buildings

1 is actually what is known as Pulga?

2 A. Yes.

3 Q. All right. So you said that you slowed down on
4 the bridge to take a look at the fire, and then you
5 finished crossing the bridge and you went up past the Cal
6 Trans station?

7 A. Yeah.

8 Q. Tell us why.

9 A. So I slowed down at the Cal Trans station just
10 to kind of -- I didn't know if that was going to be the
11 best vantage point. I slowed down briefly and then I
12 continued up, up to Poe Dam to get a better look at it.

13

14 (Grand Jury's Exhibit 128 was marked for identification.)

15

16 Q. Let's move on to 128.

17 Do you recognize what's depicted in the
18 photograph marked 128?

19 A. I do, yes. Sorry. It's directly in front of
20 the -- this looks like it's taken from Highway 70,
21 standing on Highway 70. And it's of the, in front of the
22 gates of the Pulga Cal Trans yard. This would be the
23 turnout from the west side of the highway.

24 Q. Okay. And is this photograph looking somewhat
25 in the direction of the fire?

26 A. It is, yes.

1 Q. Now, you said you went through, past the Cal
2 Trans station to where?

3 A. Poe Dam.

4 Q. And where is Poe Dam?

5 A. It's just above -- I don't know in miles or
6 feet -- just above the Cal Trans Pulga station.

7 Q. Why did you go to the Poe Dam?

8 A. That's where it looked like it was across from.
9 It looked like the fire was on the other side of the Poe
10 Dam. I wanted to get directly across from it to see
11 it --

12 Q. Okay.

13 A. -- to give a better report.

14 Q. What did you see when you reached the Poe Dam?

15 A. When I reached the Poe Dam, I opened the door
16 and stepped out and kind of looked up, and I saw -- well,
17 I called it ten acres, and I noticed it had the wind that
18 was on -- it was not the wind we had at the station,
19 which probably the reason why I didn't smell it or see it
20 or whatever, smell it, it was more of a kind of a north,
21 north wind, like pushing towards the lake. And at the
22 station it was right in our face.

23 So, yeah, I just, I saw that it was burning in
24 the maintained vegetation underneath the transmission
25 lines. And it hadn't really gone into the timber yet.
26 And it was just starting to get into some brush on the

1 lower side of it. I couldn't see the upper side of the
2 fire. I could see the glow, but it was kind of behind
3 the hill. I could see the flank that was making its way
4 towards me, towards the river. And it was starting to
5 pick up in intensity.

6 Q. So you're on the other side of the river and
7 the other side of the highway at this point. You said
8 you can't fight the fire from where you're at, so what
9 did you do from there?

10 A. Made the decision that the immediate threat
11 would be the community of Pulga. Pulga can have fifty in
12 it and it can have four people in it, or one. And just
13 so happened that morning it was four people in it. Betsy
14 runs -- she has a -- yoga tents, or yoga huts, and a lot
15 of artists go up there to be inspired. It's a little
16 commune you could call it. And sometimes she has a lot
17 of people and other times she doesn't.

18 This time, like I said, there was only four.
19 So, yeah, I told my second engine, Engine 2176, Engineer
20 Lozano, I said, "Get into Pulga and evacuate."

21 He said, "Okay," turned around, and that's
22 where he headed.

23 Q. What did you do while he was going in to
24 evacuate Pulga?

25 A. I ordered resources.

26 Q. All right. Now, did you have a phone with you

1 that morning?

2 A. I did.

3 Q. A Smartphone?

4 A. Uh-huh.

5 Q. Did you have capability of taking pictures?

6 A. Yep. And I did that.

7 Q. Did you snap any pictures of the fire?

8 A. I snapped one through the windshield and then
9 made my report on conditions.

10

11 (Grand Jury's Exhibit 1 was marked for identification.)

12

13 Q. Next you should have in front of you what's
14 been marked as Exhibit No. 1.

15 Do you see Exhibit No. 1?

16 A. I do. I see it.

17 Q. Do you recognize Exhibit No. 1?

18 A. Yes. It's my photograph I took.

19 Q. And that's the same photograph being shown on
20 the big board?

21 A. Yes.

22 Q. And you said this is the photograph that you
23 took?

24 A. This is the photograph I took out of the front
25 windshield of the engine.

26 Q. What does this photo depict?

1 A. This is what I, what I saw when I got to the
2 Poe Dam. This is what I was looking at and what I told
3 ECC I was looking at, our command center. It depicts the
4 fire underneath the transmission tower and the downhill
5 flank, the flank closest to the Feather River, the
6 backing flank.

7 Q. Okay. So is this what you're referring to,
8 this bright yellow --

9 A. Yes.

10 Q. -- semicircular? That, you term that as the
11 flanking fire?

12 A. Yes. That was the one that was backing towards
13 the river. The smoke column -- doesn't really show how
14 windy it was. A couple of the tops of the trees do. But
15 the smoke column itself doesn't really show how strong
16 the wind was.

17 Q. And you said you were shooting this through the
18 windshield of your fire truck?

19 A. Yeah. There's actually a glare down below.
20 Yeah, that's actually off the windshield. A lot of
21 people think that's a spot fire. It's not. It's a glare
22 off the windshield.

23 Q. All right. You said that the next thing you
24 did was after sending the other engine to evacuate Pulga
25 was to order resources?

26 A. Yes.

1 Q. Describe what you mean by that.

2 A. I need more equipment. So the equipment I need
3 is above and beyond the dispatch, what I was given during
4 the dispatch. It's called "augmentation." When you ask
5 for an augmentation of resources, you're trying to paint
6 a picture of how bad you actually think it will be. So I
7 think I requested 15 engines, but my resource request has
8 to be, it has to be obtainable -- attainable. So, I
9 mean, like I'm, obviously I knew it was going to be a big
10 fire. I can't say I need 300 fire engines. That's not
11 realistic. That can send people into a tailspin. But I
12 wanted 15 engines because I wanted to stop this on Concow
13 Road. My resource order was designed to get enough
14 resources to stop it before it hit the community of
15 Concow. I knew we weren't going to stop it before it hit
16 Pulga.

17
18 (Grand Jury's Exhibit 130 was marked for identification.)

19
20 (Grand Jury's Exhibit 131 was marked for identification.)

21
22 Q. So in front of you you have two CDs?

23 A. Okay.

24 Q. 130 and 131?

25 A. Yes.

26 Q. I'll play for you 130, and listen to it, then

1 you can come back and tell us what it is.

2 (CD plays.)

3 Q. (By MR. NOEL) Okay. That was 130. Whose
4 voice are we hearing?

5 A. That's me.

6 Q. And who are you talking to?

7 A. The Oroville Dispatch ECC, Oroville ECC.

8 Q. And what are you doing in this first
9 transmission?

10 A. Trying to paint a picture to them what I'm
11 looking at. A report on conditions is the, just that,
12 it's giving an idea of the responding resources what
13 you're looking at. Kind of just breaking it down for
14 them. That's your initial "here's what I have," and
15 based on my report they should be getting ready for a
16 resource order.

17 Q. So at one point during your transmission you
18 said the wind is approximately 35 miles an hour?

19 A. I would say, yeah, it was a sustained, just a
20 hard -- not a gusty wind like the canyon wind normally
21 is. It was just a hard, sustained push. It was probably
22 more than that, but I didn't want to, I didn't want to
23 overdo it or underdo it. Kind of like acreage. Call it
24 ten acres, then, "Oh, it was contained to 2 acres." Lost
25 your cool. No, but I knew it was a strong wind, I didn't
26 know exactly, I didn't have a wind gauge out.

1 Q. That's the next question, how did you come up
2 with 35 miles an hour?

3 A. Just working in the canyon for years and
4 knowing my fire weather, and pretty -- I have a pretty
5 good idea of what a sustained 35 mile-an-hour wind is,
6 what it felt like to me.

7 Q. Let's listen to 131.

8 (CD plays.)

9 Q. So you said, "This has the potential of a major
10 incident"?

11 A. Yes.

12 Q. Did you have any idea how major that was going
13 to become?

14 A. No. I knew it was going, I knew it was heading
15 for my community that I, that we protect up there. I
16 knew that was a fact. It was going to get at least to
17 there. I didn't really expect it to jump the West
18 Branch.

19 Q. So once you're in there and you're in place,
20 what is your role?

21 A. So initial attack incident commander, my role
22 is to come up with a plan of what resources we need and
23 where we're going to try and stop it, and get that
24 message out. It's also to order evacuations and
25 resources to do evacuations if I felt it's necessary;
26 which I did for the community of Pulga, ordered

1 evaluations for that. Which we evacuated ourselves, so
2 when BCSO officers got there, they immediately went into
3 Concow.

4 Yeah, my role is to brief -- first of all,
5 safety, brief my people on what the overall plan is, what
6 we're going to do, get the resources to do it, come up
7 with the plan on how we're going to get it done, and
8 start installing those resources into those positions
9 that I want.

10 Q. All right. So after -- once you got Pulga
11 evacuated, you placed your resource order, now what are
12 you going, what are you doing?

13 A. The -- I went back, I went down into Pulga. I
14 turned around and followed my other engine down into
15 Pulga and briefed them.

16 I can't -- I really should have, should
17 remember how long it, how long it is between -- what's
18 the distance between the actual origin and Pulga, the
19 community itself. I don't know if you have those
20 figures. But by the time I got down into Pulga, the fire
21 was just above it. It had spotted over, and there was
22 just fire everywhere above Pulga. So I briefed my
23 engineer quickly. I said, "There's a railroad sighting
24 down by the river, it's wide, there's water. If you get
25 in trouble, go there, back everybody up to the river and
26 get in it if you have to, but that's how you're going to

1 stay safe." And I got out of the community of Pulga and
2 got onto the bridge and acted as a lookout for him down
3 in there.

4 They started firing out around the buildings.
5 "Firing out," I mean they're taking their drip torches
6 and they're starting a fire down in Pulga to meet with
7 the fire that's just above Pulga. And it didn't take
8 long.

9 Q. I want to get to that in just a second, but you
10 used a term I want to get defined before we put out. You
11 said that "fire was spotting."

12 A. Correct. So the main fire couldn't -- after
13 about 30 minutes, I couldn't tell what was the main fire
14 and what was spot fire. There was fire everywhere. So a
15 spot fire, yeah, you just -- if you see a fire detached
16 from the rest of the main fire, that's a spot fire. And
17 it was throwing spots out ahead of itself everywhere.
18 There was no real clear direction on where it was
19 throwing spots because there was some way off to the
20 side, not in line. So the wind kind of eddies when it
21 gets around certain parts of the canyon, and it was just
22 throwing spots everywhere.

23 Q. Right here is actually where I think Flea
24 Canyon starts coming into the Feather River Canyon;
25 correct?

26 A. Yes. Yes.

1 Q. Kind of wreaks havoc with the winds?

2 A. It does.

3 Q. And so just for the record, as you were
4 describing the fire throwing out spots in front of it,
5 you were using your hands to throw things off in all
6 directions?

7 A. Yeah. It just seemed like -- normally a
8 wind-driven fire like that, you'll see spots just
9 directly out in front of it, just directly. And these
10 were everywhere. There were a couple here, couple there.
11 And they were picking up in intensity, and they were
12 burning together, and they were throwing spot fires. So
13 it was just --

14 Q. What is it that's actually being thrown causing
15 the spot fires?

16 A. So the brush, the brush, as it's consumed, the
17 trees are, as they're consumed, a lot of -- actually bark
18 will do it, but mostly leaves, leaves off the brush.

19 Q. All right. Now, you were talking about having
20 your firefighters use drip torches to start fires down in
21 Pulga?

22 A. Yeah.

23 Q. Can you explain that to us?

24 A. A small can of fuel, it's a 2 to 1 diesel to
25 gas mix, with a wick. And the wick just burns. And then
26 when you want, when you want to put fire on the ground,

1 fuel comes from the spout, hits the wick, ignites, and
2 goes onto the ground. So it's -- yeah, it's just a small
3 can of fuel; three gallons.

4 Q. So why would you want to light these fires?

5 A. So, to remove the vegetation in our way; we can
6 handle it. It's not Mother Nature coming at us with all
7 the wind and the fire. It's us putting fire on the
8 ground in a favorable sense. So we have a control line
9 right here, being the houses or our tools or our wet
10 line, our hose, and we start a fire, and we let it go
11 towards the main fire. So it's consuming the vegetation
12 before the main fire gets to us, so it doesn't come and
13 hit us with a head of steam. It's coming fast and then
14 it hits burned vegetation, and that's it.

15 Q. It has no fuel?

16 A. No fuel. Try and remove the fuel before the
17 main fire gets there.

18 Q. So, in essence, you're fighting fire with fire?

19 A. Correct.

20 Q. So you had firefighters down in Pulga lighting
21 their own fires to protect the community?

22 A. Yes. Two drip torches that, we carry two drip
23 torches on the engines. So two drip torches, and the
24 rest would be, we call them Fusees, or essentially a road
25 flare. They're longer road flares. They're made for
26 fires. You can actually stick them together, they have

1 little sleeves that you can stick them together so you're
2 not bending over.

3 Q. How long did your people stay in Pulga?

4 A. Time kind of flew out the window. I'm sorry,
5 at a certain point it was just couldn't really have a
6 concept of time. Six hours, seven hours. We got stuck
7 in there.

8 Pulga Road kept -- the fire had burned along
9 the top of Pulga Road, and you could see in some of the
10 other exhibits how steep it was at that road. So when
11 the vegetation burns, there's nothing holding the rocks
12 in place. And the rocks came down.

13 So those guys got trapped in there several
14 different times with rock falls. And I had to drive over
15 to the Cal Trans yard in Pulga across the -- not in
16 Pulga, the Pulga Cal Trans yard off Highway 70. And the
17 supervisor there, Clay Hemstalk, was able to jump in a
18 loader and open that road up for us several times,
19 because it just kept, kept collapsing. And we didn't
20 have any Cal Fire resources as far as dozers that could
21 come up and do anything with that. So it was perfect.
22 They would have been in there all day, all night, the
23 next night if that, we didn't have that resource to open
24 that road.

25 Q. It's not very often that you're able to say
26 thank God for Cal Trans?

1 A. I was pretty happy there.

2 MR. NOEL: All right. Can you think of
3 anything else?

4 I don't believe we have anything further of
5 this witness.

6 If Madam Foreperson or the jurors have any
7 questions?

8 Q. (By MR. NOEL) In your professional experience
9 -- I think you said you've been a full-time paid
10 firefighter for 21 years now?

11 A. Uh-huh. Yes.

12 Q. And before that you were a volunteer?

13 A. Correct.

14 Q. For four years I think you said?

15 A. Uh-huh.

16 Q. I think you said you started, started with fire
17 service in 1994; correct?

18 A. Yeah, 18 years old.

19 Q. And you've been at the Jarbo station now for
20 five years?

21 A. Yes, five years.

22 Q. And even before that, being here in Butte
23 County fighting fires up in the canyon the entire time?

24 A. Yes.

25 Q. In your professional experience, have you ever
26 experienced a fire expanding or moving as fast as the

1 Camp Fire did on November 8th?

2 A. Never.

3 MR. NOEL: Any further questions?

4 MR. FOGG: Marc, one more.

5 MR. NOEL: One more.

6 Q. (By MR. NOEL) Okay. You talked somewhat
7 during your testimony about summer-winter fire season.

8 A. Uh-huh.

9 Q. Especially you were talking about when you were
10 a, working out of class as a captain, you'd be a captain
11 during the summer fire season and an engineer the rest of
12 the year?

13 A. Yeah.

14 Q. Can you specify the dates of, for the fire
15 seasons?

16 A. For what, fire seasons I was a captain?

17 Q. No, just the, I think in general when the fire
18 season starts, when it ends, what would be considered
19 fire season, as opposed to --

20 A. That's a hard one. From when I started, it was
21 pretty much peak would be July, but I mean we'd start
22 having fires in late May, June would be fire season, then
23 late October it would be over. And now it's -- geez,
24 we've been staffing up in April. We just started
25 staffing last week. Hired our first round of
26 firefighters. We've had escape control burns in Feather

1 Falls last week, two of them. So it's started, it's
2 here. So April. Now, I mean. And what was it last,
3 year before last we went until January. So ordinarily
4 June 1st, middle of November, roughly.

5 Q. Would it be safe to say that a lot of it's
6 based upon meteorological factors?

7 A. Yeah, depending upon how much you believe in
8 the drought and global warming, or if you believe we've
9 just been in an abnormal pattern and we're getting back
10 to normal, you know. There's different schools of
11 thought. But definitely the weather, I can certainly
12 tell a difference from when I first started. It is
13 dryer, it is hotter, and it gets that way quicker than it
14 ever has before.

15 MR. NOEL: Anything further?

16 I believe that's it for this witness right now.
17

18 EXAMINATION
19

20 BY MS. RICHARDS

21 Q. Captain McKenzie, you earlier testified about
22 Exhibits 130 and 131, which were recordings. Were the
23 recordings of your voice?

24 A. Yes.

25 Q. Okay. And did you, were those recordings made
26 while you were approaching the fire?

1 A. Yes. Approaching or looking at. There's a
2 combination of the two.

3 Q. Okay. And, and were those recordings an
4 accurate recording of your voice?

5 A. Yes.

6 Q. And did you make those statements as part of
7 your response to the fire?

8 A. Yeah. Yes, it's a standard practice to as soon
9 as you have eyes on it to let them know what you're
10 looking at and make your resource order, if you need to
11 make a resource order. So that's standard.

12 MS. RICHARDS: Okay. Thank you.

13

14 EXAMINATION

15

16 BY MR. NOEL

17 Q. Those recordings, those were off the Cal Fire
18 radio network?

19 A. Our dispatch center, yes.

20 Q. And all radio communications between
21 firefighters in the field and the dispatch center are
22 recorded?

23 A. They are, on local Butte support, I believe.
24 I'm not sure what else they can record, if they can
25 record our TACNETs or not.

26 TACNET would be a line of sight tactical net.

1 So I don't think they would pick up any of our tactical
2 frequencies from our command center being so far down in
3 the valley. Plus the canyon doesn't offer a lot of good
4 communication. We have a hard time hitting our
5 repeaters.

6 So I'm down in a hole, and I have to hit a
7 repeater, which was tone 13, which was on Bloomer
8 Mountain, or tone 11, which is Bald Mountain in Stirling
9 City above Magalia in Paradise. So those are my two tone
10 options to hit a repeater so they can hear me down in the
11 canyon. And it's just, it's hit or miss whether you're
12 going to get either one of them.

13 I was very happy my report was able to get out,
14 because I hit the mic -- and you're listening for a click
15 back. That means the repeater opened up, got your
16 message, then it closed. If you hear a click back, you
17 know you got a repeater.

18 So a lot of times if you hear these recordings,
19 you'll hear somebody key the mic once or twice -- click,
20 click, click, click. They're trying to find out if they
21 have a clear line of communication so they can start
22 talking.

23 To get on there and give a gigantic speech of
24 what you want, then it falls on deaf ears because it
25 never gets out is very frustrating. So you have to make
26 sure you have a communication line open.

1 Tactically, I don't think they can hear any of
2 our tactical frequencies, line of sight. I could be
3 wrong.

4 Q. All right. Thank you.

5 A. No problem.

6 Q. Thank you.

7 Any others?

8 All right. I think we can admonish the
9 captain.

10 GRAND JURY FOREPERSON: We have done that. You
11 want it done again?

12 MR. NOEL: Sure. We can't admonish too many
13 times.

14 GRAND JURY FOREPERSON: Okay.

15 Okay. You are admonished not to discuss or
16 disclose at any time outside of this jury room the
17 questions that have been asked of you or your answers
18 until authorized by this Grand Jury or the Court.

19 A violation of these instructions on your part
20 may be the basis for a charge against you of contempt of
21 Court. This does not preclude you from discussing your
22 legal rights with your own attorney.

23 Captain McKenzie, what I have said, just said
24 is a warning not to discuss the case with anyone except
25 the Court, your lawyer, or the district attorney.

26 THE WITNESS: Yes, ma'am. Understood.

1 GRAND JURY FOREPERSON: Okay. Thank you.
2 THE WITNESS: Thank you.
3 MR. NOEL: All right. You're excused.
4 THE WITNESS: Thank you.
5 [DISCUSSION OMITTED.]
6 GRAND JURY FOREPERSON: Would you stand, raise
7 your right hand, please.
8 CHIEF DAVID HAWKS: Yes.
9 (GRAND JURY FOREPERSON swears in witness.)
10
11 CHIEF DAVID HAWKS
12 having been called as a witness in
13 the matter now pending, having been first
14 duly sworn, testifies as follows:
15
16 THE WITNESS: Yes, Your Honor.
17 GRAND JURY FOREPERSON: Have a seat, please.
18
19 EXAMINATION
20
21 BY MR. NOEL
22 Q. State your full name, please.
23 A. David Hawks.
24 Q. By whom are you employed, Chief?
25 A. With Cal Fire.
26 Q. In what capacity?

1 A. Currently I am the Butte Unit Cal Fire Chief
2 and Butte County Fire Chief.

3 Q. How long have you been with Cal Fire?

4 A. I started right out of high school in 1984.
5 This will be my 36th fire season. I have 30 total years
6 of service with the department.

7 Q. What jobs have you done during your career with
8 Cal Fire?

9 A. I started off as a seasonal firefighter in the
10 Auburn area, in the Nevada-Yuba-Placer Unit.

11 Promoted in 1990 -- no, excuse me, 1988 to
12 engineer, seasonal engineer, with Cal Fire at the
13 Tuolumne Calaveras Unit down there in Sonora. Spent two
14 years in that unit, transferred back to Butte County as a
15 seasonal engineer.

16 Then in 1994 made permanent engineer with Cal
17 Fire back in the Grass Valley area.

18 Promoted to captain back in Butte County back
19 in 1998. And then to battalion chief 2006 here in Butte
20 County in our Emergency Dispatch Center. Transferred to
21 the field operations battalion in 2011. And then
22 promoted to division chief in the north half operations
23 of Butte Unit, including the town of Paradise where I was
24 a fire chief at the time of the Camp Fire. As a contract
25 -- Town of Paradise contracts with Cal Fire for fire
26 protection services. Then in January 7th of this year I

1 promoted to the unit chief.

2 Q. So on November 8th, 2018, you were in charge of
3 the north division of the county, including the, being
4 the fire chief in Paradise?

5 A. Yes.

6 Q. What experience and training do you have as a
7 firefighter in fire behavior?

8 A. Well, I -- early on in my career, one of the
9 required classes is for us to attend Intermediate Fire
10 Behavior, class known as S290. I attended that when I
11 was an engineer in probably 1995. And then took Advanced
12 Fire Behavior, S490, 491, which is -- I'm trying to
13 remember the names of them now, it's been several years.
14 But I've had three classes related to fire behavior and,
15 of course, many, many years on the ground observing fire
16 behavior, and that's where you can put all the pieces
17 together. Fire is a science. Like any other science, it
18 reacts based on factors and conditions. And those
19 conditions vary over time and vary over the course of any
20 given day.

21 Q. In 36 years of fire service do you have any
22 idea or any estimate as to how many wildfires you've
23 fought?

24 A. I don't. I would only estimate maybe a
25 thousand. I really don't know, to be honest with you.
26 In varying sizes, of course. Many of them, most of them

1 small fires, easily and quickly extinguished by
2 firefighter resources. But it would be, that would be
3 ust a guess.

4 Q. So on November 8th you were the fire chief of
5 Paradise?

6 A. Yes. Again, under contract with Cal Fire.

7 Q. Were you scheduled to be on duty on November
8 8th?

9 A. No. I had just completed my duty assignment,
10 was scheduled to be off duty, but told my peers that I
11 would be available, knowing the circumstances we were
12 facing with the wind.

13 Q. What circumstances were those?

14 A. Well, we were late in the fall, you know, at
15 the time when fuels have been drying in the hot summer
16 sun all year. And we had a very strong north wind event,
17 which is common in California, in northern California, of
18 course, in the spring period that we're going into now
19 and also in the fall. I knew that -- we knew that
20 conditions were, were such that we could have a major
21 fire in northern California. And as an agency, we had
22 staffed up to try and prepare and respond to that. So I,
23 knowing all of those factors, had told my peers who were
24 on duty that if something occurred, I would be available
25 to call back.

26 Q. All right. So I want to talk to you a little

1 bit about fire behavior. Can you describe for us briefly
2 what factors affect fire behavior?

3 A. Fire behavior -- like I said before, fire is a
4 science. It's driven by varying factors who have, all
5 who have varying forces on the direction and rate of
6 spread of the fire. The broad categories that we term
7 "fire behavior factors" are topography, weather, and
8 fuels. And you see those on the screen up there. And I
9 might add -- well, he'll talk more about that. But fuels
10 are anything that will burn, frankly, but we typically
11 think of them as forest fuels.

12 Q. Let's start with topography. Talk to us about
13 the topography in Butte County and specifically the
14 Feather River Canyon.

15 A. So Butte County is kind of at the northern
16 extent of the Sierra Nevadas and southern extent of the
17 Cascade Range. Many large and significant drainages,
18 river drainages, of which we're all very familiar that
19 the Feather River is the most extensive drainage in Butte
20 County and culminates in Lake Oroville.

21 This particular drainage is the North Fork of
22 the Feather River drainage. It's a very, very long
23 drainage that starts in northeastern, the desert area of
24 the northeastern California and the Reno, north of Reno,
25 that area. And it culminates in the Sacramento Valley,
26 at Lake Oroville, and the city of Oroville.

1 That drainage, because of its magnitude and
2 size, is very prone to daily, daily wind occurrences that
3 move up and down the drainage. We'll talk more about
4 that I'm sure.

5 Q. So you said earlier that you had told your
6 peers that you'd be available because of the
7 circumstances of that day, but you said also that wind is
8 a daily thing in the Feather River drainage. Why was
9 this day so special?

10 A. So when we get to weather that will probably be
11 covered, too, but I think that the wind on a daily, daily
12 basis, when you have heating in the Sacramento Valley and
13 the foothills, that wind travels up that drainage and out
14 to the desert. As the hot air rises in the desert, it
15 pulls that wind from the Sacramento Valley up that
16 drainage to the desert in eastern California, the Reno
17 area. Then at night, as the desert cools much quickly
18 than the foothills, that cold air rises and flows down
19 the Feather River drainage into the valley, in the
20 Sacramento Valley. That's what we know as diurnal wind
21 pattern, daily wind patterns, under normal daily heating
22 and cooling.

23 This particular wind was what's known as a
24 "gradient" or a "flowing" wind. It's similar to Santa
25 Ana winds in southern California and the north winds in
26 northern California. It is an overriding regional wind

1 that is driven by pressure gradients. Basically high and
2 low pressure gradients. And the tighter those get -- and
3 I'm not a meteorologist, but the tighter those get, the
4 potentially more severe those winds can be.

5 We knew that the north wind event that was
6 forecast by the National Weather Service on November 7th,
7 8th, and 9th was forecast to be a very significant,
8 stronger-than-your-normal north wind event.

9 Q. You're familiar with the term "red flag day"?

10 A. Yes.

11 Q. What is red flag day?

12 A. So we have, in the weather service we have fire
13 weather watch and red flag conditions. A red flag
14 condition is a condition whereby one of potentially
15 several factors is elevated that puts -- one of several
16 factors is elevated such that it puts conditions at a
17 level that are very prone to rapidly developing fire.

18 In this particular case, the wind and the low
19 humidities in combination, but clearly the wind in and of
20 itself is probably enough to enable that to be considered
21 a red flag day. But sometimes it's a combination of wind
22 and humidity, but in this particular case the wind was,
23 by far, the overriding factor.

24 Q. So you also mentioned several times weather is
25 a big factor. We'll go through the weather factors and
26 how that affects fire.

1 A. Sure. Weather has both short- and long-term
2 impacts on fire. Short -- the long-term impacts on fire,
3 we'll start with the drought. You know California
4 experienced a pretty severe drought 2012 through 2016,
5 over a five-year period. That drought has, as we know,
6 led to a greater number of trees dying, tree mortality,
7 especially in the central Sierras, I believe upwards of
8 130 million trees in the central Sierras. Northern
9 California, the effects of that drought in terms of tree
10 mortality was a little less, but we did have some.

11 What we also had was a higher than normal live
12 to dead ratio in our live fuels, such as manzanita. So
13 in a manzanita, you have live plant material that is
14 still pulling water, it's still growing on an annual
15 basis, and you have dead limbs within that manzanita.
16 That drought heightened the amount, increased the amount
17 of dead component to live ratio that we were accustomed
18 to seeing.

19 Also in 2017, '18, last winter, we had about 50
20 percent of normal rainfall. In January the rain kind of
21 terminated for a period of time around mid-January and
22 then was much below normal in February. In fact, I can't
23 recall for sure if we even had any measurable rain in
24 February last year, which is pretty uncharacteristic.
25 Then the rain returned in March and April. And what that
26 added is overall we had less than about 50 percent normal

1 rainfall. But we also had a late rain, which enabled the
2 grass to grow readily. A mix of rain and moisture and
3 sunshine enables the grass to grow. And we had a pretty
4 healthy grass crop last year.

5 After that rain period in roughly May, we had
6 about 200 days where we had very minimal rainfall, a
7 period of about 200 days in northern California with very
8 limited rainfall, less than a quarter of an inch. We did
9 have one rainfall period around the 8th of October, to
10 the best of my recollection, recollection early October,
11 where we had around a quarter to maybe upward a half an
12 inch across the foothills of California, but it was
13 fairly minimal.

14 And that, shortly after that we had fall wind
15 patterns return to northern California. We had periodic
16 north wind events of a day to a few days. Where that
17 north, north wind is a warm wind, and it brings with it
18 much lower than normal humidities. Humidities at night
19 do not come up to the normal extent that they would. And
20 that enables the very fine fuels, the pine needles and
21 the leaves and fine grasses, to remain very dry where
22 they would normally pull humidity over the course of that
23 night if humidity was to come up. And the fall wind
24 patterns, that does not normally happen. And we were
25 experiencing periodic fall wind patterns from about
26 middle of October into, into the November 8th period, of

1 course.

2 The north winds, again, were forecast on
3 November 7th, 8th, and 9th to be very, very strong. The
4 forecast at 25 to 30 miles an hour with gusts of 45 to 50
5 from the -- we refer to them as "northerly winds," "north
6 winds," but they're from a northerly direction. So in
7 this case, they were more northeast than north.

8 Q. How does humidity -- how is humidity
9 significant to fire?

10 A. Humidity is significant to fire in terms of the
11 fine fuels. Again, the grasses, the annual grasses that
12 we see growing now. Pine needles, leaf material, very
13 fine fuels that lie in the forest floor. Those are the
14 fuels that react mostly on a day-to-day basis from
15 humidity. And when the humidity goes up -- and, of
16 course, if we have rainfall, they reach a point of where
17 they will not be ignitable. And so they're more
18 resistive to firebrand. But when the humidity remains
19 low, the potential for them to ignite from embers cast
20 from the main fire is increased dramatically.

21 Q. That's a good segue into fuels. Talk to us
22 about the fuel conditions last November.

23 A. So the fuels in the area of the Camp Fire are
24 comprised, in this particular area has had significant
25 fire history back in 2008 being the most recent large
26 fire. And I point that out because the fuels normally in

1 that area would be mostly timbered, but they had returned
2 to brush. So we have a mix of timber -- in the fire
3 footprint -- timber brush, timber litter, which is
4 ponderosa pine with the leaf -- or needle understory, or
5 litter understory, then urban structures.

6 And in, again, I mentioned earlier, in late
7 2017, '18, we had late spring rains which led to a
8 greater than normal grass crop. The ERC, the Energy
9 Release Component, is a measure of energy that comes off
10 a area of fuel. And the ERC, that's a measuring stick
11 for firefighters to kind of get a barometer for what the
12 conditions are like out there. The Energy Release
13 Component was running well above average for the October
14 period into the fall, of course, and was at record levels
15 on November 8th. And those ERCs were gathered from
16 varying fuel sampling stations. In this particular case,
17 those figures came from the Plumas National Forest, not
18 too far south of where the fire was.

19 Thousand-hour fuels. So we have, we have both
20 live fuels, live fuels rely on soil moisture to pull
21 moisture from the root -- or through the root system up
22 into the plant to allow the plant to grow. We also have
23 dead fuels. And dead fuels are the dry annual grasses.
24 They're the pine needles on the ground, they're the oak
25 leaves, and then they're also small twigs, and then
26 larger branches, then all the way up to big logs. And we

1 classify those in a time lag. One, one-hour, ten-hour,
2 hundred-hour, and thousand-hour.

3 And the significance of this is the
4 thousand-hour fuels are fuels over three inches in
5 diameter. And those fuels were extremely dry. Typically
6 the large forest logs. And the significance of that is
7 that's a pretty good barometer for the amount of
8 resources and commitment it would take to extinguish a
9 fire, the potential volatility of the energy of that fire
10 released.

11 And on November 1st, that thousand-hour fuels
12 were measured at 5 percent. Average for that November
13 1st time period would be around 17 percent. Kiln dry
14 lumber is around 12 percent. So this is half of what you
15 would get from kiln dry lumber from a lumber mill.

16 Q. 5 percent being the moisture content in the
17 thousand-hour fuels?

18 A. Correct.

19 Q. So those logs, those dead logs, dead trees that
20 are over three inches in diameter; is that correct?

21 A. Yes, that is correct.

22 Q. And the moisture content in those things was
23 under -- or at 5 percent?

24 A. Yes, measured by the Plumas National Forest.
25 That's where I believe we got those figures.

26 Q. And, finally, go ahead, talking about the

1 manzanita.

2 A. So manzanita, obviously, is a live fuel
3 moisture, relies on the plant's root system to pull
4 moisture from the soil up into the plant structure.

5 Right about now, in the March period of time,
6 is when live plants start to pull moisture up from the
7 soil. They start their growing cycle, and they will grow
8 for as long as they can sustain moisture content, pulling
9 moisture up. They will continue to grow. This year we
10 probably will see more than normal growth because we've
11 had a good winter. Last year the rainfall again was
12 about 50 percent of normal, so their ability to grow
13 longer into the summer was not as it would be.

14 So what that means is the plant eventually
15 reaches a point where it says, hey, I can't continue to
16 grow, I have to hunker down for the summer because it's
17 going to be hot, and I have to be just kind of -- they go
18 into a state of dormancy. Plant no longer grows, it just
19 basically hunkers down and rides out summer, fall, gets
20 into the winter period where it starts to grow again.

21 So in the manzanita and the live fuel moisture,
22 we consider critical, in a benchmark measuring stick in
23 the fire service, in wildland fires we consider critical
24 to be 80 percent fuel moisture. Normal for that time of
25 year is 93. And, again, that measure was measured around
26 early November. I don't know the exact date, but around

1 early November by, again, the Plumas National Forest, at
2 74 percent. So well below the critical state for the
3 manzanita live fuel moisture.

4 Q. So the manzanita itself, even though alive, was
5 still much dryer than it should have been?

6 A. Correct. And much dryer equates to much more
7 volatile.

8 Q. So you knew all these factors going into
9 November 8th?

10 A. Yes. Every fall, you know, we face -- that's
11 the end of typically, you know, our summer fire season as
12 we commonly refer to it. And we know the conditions are
13 usually at their most extreme in terms of fuel moisture
14 at that particular time of the year. I knew that this
15 particular year we had had little to no rainfall and that
16 they certainly were at their most critical states at that
17 time.

18 Q. Now, we've had this question come up earlier.
19 When does the fire season usually end?

20 A. Mother Nature dictates when fire season starts
21 and when it ends based upon rain predominately. And not,
22 it's not just one rain storm, it's significant wetting
23 rain over a period of time. If we have, you know, one
24 rain storm that rains a half of an inch, then it turns
25 warm and dry, which is what we basically had, potentially
26 had in that October 8th period, upwards a half an inch,

1 it will dry right back out again. It has limited effect.

2 So we're talking fuel responds, fuel again
3 being forest fuels predominantly, responds to the amount
4 and consistency of moisture over a period of time. And,
5 again, getting back to the thousand-hour fuels, those
6 fuels are slow to respond to moisture.

7 So picture a log or tree log two and a half
8 foot in diameter laying on the forest floor. If you put
9 rain on it for, you know, a day or so and you carve into
10 it with a pocket knife, you may only see moisture into
11 the wood a small amount. But if it rains three days
12 later, a week later, and that log sits on the forest
13 floor, it begins to absorb that moisture into the
14 internal core of it, because it's not pulling it up, it's
15 just absorbing it through direct contact with the rain or
16 direct contact with the soil that's damp. And so it
17 takes a long time for that log to, in essence, equalize.
18 It's always working for a state of equalization, but it
19 takes a long time for that log to pull moisture through
20 it and get to a point where it's not in a condition that
21 it won't burn. And every fuel reacts a little bit
22 differently.

23 So I guess my point is the amount and
24 consistency of rainfall over a period of time is when we
25 will typically declare an end to fire season. And that's
26 when we feel that the fire risk has been abated because

1 of Mother Nature's graces.

2 Then, of course, as we move into the springtime
3 of the year, we're dependent upon again Mother Nature.
4 It's -- as long as we have consistent rain, the risk is
5 reduced. As soon as we get into prolonged periods of
6 dry, warm air, things start to dry out. And if you add
7 wind to that, that is just another factor that
8 precipitates fire exponentially.

9 Q. So all of this was known and understood when
10 you got off duty on November 8th?

11 A. Yes.

12 Q. What time did you get off duty November 8th?

13 A. In the evening, actually, on November 7th. I
14 got off duty in the evening, 5:30 or 6:00 probably when I
15 got home.

16 Q. On the morning of November 8th, at
17 approximately -- well, were you scheduled to work on
18 November 8th?

19 A. No, I was not scheduled to work. I, as I said
20 earlier, I did tell my partners that I would be around
21 and available if something developed. I have a bad back,
22 and my back was really bothering me at that particular
23 time, so I got up about 5:30, told my wife I was going to
24 go to the gym and stretch my back out and do a little
25 workout. And that's how I started my morning.

26 Q. When you went to the gym, did you notice

1 anything unusual?

2 A. I didn't want to be there, but other than that,
3 no.

4 Q. What area of the county was your gym?

5 A. South Chico. Not too far from my home.

6 Q. So you weren't going to the gym up in the
7 canyon someplace?

8 A. No.

9 Q. How long did you work out?

10 A. I left when I became aware of the fire and got
11 a call from my partner. I left the gym around 7:20 I
12 would estimate.

13 Q. You said that you got a call from your partner?

14 A. Yes.

15 Q. Who was that?

16 A. Garrett Sjolund.

17 Q. What was his rank?

18 A. Garrett and I were partners. We were both
19 division chiefs. And Garrett was the unit duty chief.
20 When I went off duty, I turned the duty chief role over
21 to Garrett. He was the unit duty chief for Cal Fire
22 beginning actually the morning of the 7th.

23 Q. And what was the topic of the call you received
24 from Garrett during your workout?

25 A. So I became aware of the fire by virtue of a
26 CAD page on my phone probably about 20 minutes into the

1 fire, so I knew that there was a fire. I didn't know how
2 significant it was at the time. He called me and told me
3 that the fire was developing pretty rapidly. Obviously,
4 I didn't have a radio with me. All I had was my phone.
5 The fire was developing pretty rapidly and wanted to know
6 if I could come back to work.

7 I told him yes, that I would be back in, that I
8 was at the gym trying to stretch my back out, and that he
9 should take one of my partners, John Messina, one of our
10 other division chiefs, and assign him to the incident as
11 the incident commander. John was scheduled to be on duty
12 that day, and so I knew John would be preparing for work
13 already and be immediately available to go in. And I
14 told Garrett that I would come in -- would leave the gym,
15 go home, get into my gear, my uniform and gear, and
16 respond to the fire, respond to Paradise.

17 MR. NOEL: Just as an aside, remember when we
18 were talking about statements that are made, those are
19 hearsay statements, you're not to consider them for the
20 truth of the matter, just the fact that he was being
21 alerted to the fire.

22 Q. (By MR. NOEL) So you leave the gym, you go
23 home, you get, get your gear and get changed, then what
24 do you do?

25 A. I left my house around 7:50, headed to
26 Paradise. I, I had heard just around that time frame of

1 the dire situation going on in Concow. At that
2 particular time, I did not know that the fire was into
3 the Concow Lake area, north end of the lake. But I heard
4 -- I was listening to my pager at that point, and I heard
5 one of our captains state that he had some civilians
6 trapped by fire on the north end of Concow Lake. And so
7 I immediately -- actually, what I did next was I texted a
8 group of former fire chiefs that we utilize during major
9 fires to help bridge the communication between the
10 Incident Command Post and the Emergency Operations
11 Centers.

12 And I knew that while the town at that
13 particular time, unbeknownst to me, I did not -- the town
14 was unaffected at that time. The fire was moving towards
15 town, but not in town at that particular time. So I
16 alerted them of the need to staff the EOC and asked one
17 of them to go to the EOC and one of them to go to the
18 command post to provide that information continuity.

19 And I then got in my vehicle and drove to
20 Paradise. As I was headed up Skyway, I met one of our
21 other responders. He was just in front of me. We, in
22 tandem, going Code 3 up the Skyway to Paradise. I got to
23 my office unloaded some stuff from my vehicle.

24 At that particular time, on the way up to
25 Paradise, I heard one of our battalion chiefs come on the
26 radio and state that there was a fire on I believe it was

1 Merrill Road, north end of Paradise off Pentz. And that
2 he, he didn't associate at that particular time that it
3 was a spot fire from the Camp Fire, from the main Camp
4 Fire. He thought this was a separate incident all in of
5 itself. He was requesting an order of resources to
6 respond to that fire.

7 Q. Let me stop you right there. Before we get too
8 far, you used the term -- we always have to go back and
9 define those -- when you talked about that you were
10 driving up the Skyway Code 3. Would you tell us what
11 that means.

12 A. Yeah. Code 3 is lights and siren, as any
13 emergency responder would be responding to an emergency.

14 Q. So you were in a state fire truck?

15 A. Yes. Actually in a Butte County SUV.

16 Q. County?

17 A. Yes, Butte County.

18 Q. And responding with your lights flashing and
19 your siren going to alert other drivers?

20 A. Yes.

21 Q. All right. So you get into your office in
22 Paradise and now you're starting to get updates on where
23 the fire is and everything?

24 A. Yes. I was obviously listening to the radio
25 traffic, and I heard the incident commander state that he
26 had issued some additional. So I had heard prior to that

1 -- back up -- prior to that that they had issued
2 evacuation orders for zones 3, 8, and 14, and the lower
3 Pentz Road area, which is the eastern most zones in the
4 town of Paradise and the county area just south of the
5 town of Paradise. And so he had issued evacuation orders
6 for those zones. As I got into my office, I heard him
7 update that and add some further interior zones. And I
8 don't remember off the top of my head what those were,
9 but I want to say that they might have been 2, 7, 13, and
10 Morgan Ridge, but I can't be a hundred percent sure.

11 At that particular time, I called the
12 individual that I had sent to the EOC to give him an
13 update of what was going on with the fire and the
14 evacuation orders so he would be familiar with those. I
15 unloaded some stuff out of my vehicle. I had a bunch of
16 stuff in the backseat of my vehicle. I unloaded that. I
17 got into my wildland firefighting gear, and I prepared
18 then to respond over to the Pentz Road side. I can tell
19 you about that if you want me to keep going.

20 Q. Well, before we get into that, because I
21 definitely want to get into that in a second, let's talk
22 about command structure during the major incident.
23 You've used terms like "incident commander" and "EOC" and
24 "ICP." Give us an idea of the command structure during a
25 major fire.

26 A. Sure.

1 In California, we use Incident Command System.
2 It came out of fires in the early 1970s in southern
3 California. In the California version, the Incident
4 Command System has been adopted nationally, referred to
5 as NIMS, but essentially the same system.

6 That structure puts an individual in charge of
7 the incident, sort of like a field general, if you will,
8 who is known as the "incident commander." And under the
9 incident commander, you have four broad areas.

10 Operations. And operations job is to oversee
11 all operations of firefighting associated with the
12 incident: Deploying resources, reallocating resources,
13 settings priorities, anything and everything associated
14 with the deployment of resources and fire fighting
15 efforts on the ground.

16 The next section is the Plans section, much
17 like the military. The Plans section, planning function.
18 Puts together the plan. They gather intel, they order
19 resources, they track resources, they allocate resources
20 based upon the Operation section chief's lead.

21 The next function is Logistics function. The
22 Logistics function provides all of the support to keep
23 the firefighting resources moving. Fuel, food, water,
24 firefighting tools, et cetera.

25 The final function is the Finances. Those
26 folks pay the bills.

1 That's the broad structure. And at the top,
2 that's known as the general staff position. The top of
3 the command staff you have public information officer,
4 safety officer, and liaison officer. And they all have
5 specific functions, obviously, providing information to
6 the public media, the liaison officer, which is
7 corresponding other agencies.

8 That's when the system is fully vetted out.
9 When an Incident Command Team is deployed, if the system
10 is fully vetted out, that would be the structure.

11 At this particular time in the fire, you have
12 an incident commander and an Operations section chief.

13 And then down in the field we geographically
14 break the fire up. So if you are looking, for instance,
15 at this picture, we might break the Concow, as we did,
16 into one branch. Concow area of the fire was known as
17 branch 1. The Paradise area of the fire at that
18 particular time was labeled branch 2. And then we
19 identified a branch 4, which was, which was initially I
20 think in the Magalia area, and I believe we moved over to
21 Forest Ranch later, later in the incident. We skipped
22 branch 3. And we do that; fairly common to skip over
23 branch numbering.

24 And then we assign divisions under each those
25 branches. So you have a branch, then you'll have a
26 division. And the division is responsible for a

1 geographical section of the fire, and the next division,
2 next geographic section, so on so forth, around the fire.

3 It's not uncommon for us to, sometimes to skip
4 a branch or division number to allow for expansion,
5 because while the fire may be moving in this direction
6 right now, it could be moving in that direction in two
7 hours, or this direction the next morning, which is not
8 uncommon in this canyon. So we leave room for expansion.

9 Q. For the record, you're using your hands to
10 point in different directions to illustrate your point?

11 A. Yes. So I think that hopefully provides a
12 pretty good overview of how the Incident Command
13 Structure works. The incident commander is ultimately
14 responsible for all things associated with the fire.

15 Q. So who was the incident commander at this
16 point?

17 A. John Messina was the incident commander from
18 roughly maybe an hour into the fire on through most of
19 that night, until Cal Fire team, one of our six -- we
20 have six statewide Cal Fire teams -- we placed an order
21 very early in this fire for one of those Cal fire teams.
22 And they assumed command in the evening hours; I don't
23 know the specific time frame. But John Messina was the
24 incident commander.

25 Q. This is a perfect time and natural break before
26 he starts talking about wandering into the fire itself --

1 GRAND JURY FOREPERSON: Okay.

2 MR. NOEL: -- for our afternoon break.

3 GRAND JURY FOREPERSON: All right. Fifteen
4 minutes.

5 (Break taken.)

6 GRAND JURY FOREPERSON: All members of the
7 Grand Jury have returned.

8 MR. NOEL: All right. All 19 are seated,
9 witness is on the stand, back on the record.

10 Q. (By MR. NOEL) So when we left off at the
11 break, you were just getting ready to go out into the
12 field.

13 A. Yes. I left my office probably around 8:20 and
14 headed north on Almond Street, east on Elliott, and went
15 through the Clark intersection to where Elliott and
16 Sawmill meet. And at that time, I had been hearing on
17 the radio about people trapped on the Pentz Road side of
18 the town along Pentz Road, that there was substantial
19 amount of spot fires along that area, and that people
20 were trapped. As I came up to the intersection of
21 Sawmill and Elliott, kind of off to my side I saw a spot
22 fire burning in a field amongst a bunch of houses.

23 You have to realize at that time there were
24 very little resources in Paradise. And at that
25 particular time, there were many, many people trapped in
26 the Pentz Road side.

1 While my normal instinct would tell me to take
2 action in that fire and order resources, I knew that the
3 priority was life, safety, and getting people out. So I
4 had no choice but to drive past that fire on over to
5 Pentz Road where I was trying to assist citizens along
6 with other firefighters to get out of town.

7 So I drove -- I -- residents were leaving the
8 area in that particular area. I drove north on Sawmill,
9 east on Bille, to Pentz Road where as I got there there
10 were other cars trying to maneuver up and down Pentz Road
11 and out all of the side streets to get out of the way of
12 the fire.

13 I drove south on Pentz, and I encountered one
14 of my counterparts trying to direct traffic probably half
15 a mile south of Bille on Pentz Road, so I told him, I
16 said, "Hey, I'm going to go back towards Bille, about
17 halfway between Bille and you, and I am going to just
18 assist."

19 The goal at that point, we're taught in the
20 fire service life is the absolute number one priority;
21 property is number two, property being residential
22 structures, commercial property; and three is the
23 environment, in terms of protecting the resources.

24 So it was very evident from the very beginning
25 that that life threat was tremendous and that all efforts
26 should focus on life. So I assisted in just trying to

1 help people get out of harm's way by ensuring that
2 traffic was flowing. I ended up on Pentz Road in an area
3 known, little court known as Chloe Court, which is a
4 fairly new subdivision on Pentz Road. And I was there
5 just basically monitoring traffic and making sure people
6 were moving.

7 Q. All right. So let's back up a little bit.

8 When did you become aware that the fire was now
9 on the west side of the West Branch and actually inside
10 the town of Paradise?

11 A. As I was driving into Paradise, probably around
12 8:00 a.m. or 8:05, somewhere in that time frame, one of
13 our battalion chiefs came on the radio and said he was at
14 the scene of a fire. I believe, again, it was off of
15 Merrill. I think he stated it was about five acres in
16 size. And he thought that this was a separate and new
17 fire, not a spot fire from the Camp Fire, so he ordered
18 through our Emergency Dispatch Center, known as the
19 Emergency Command Center in Oroville, he ordered a full
20 alarm of resources. Which, you know, we had far more
21 fire on the -- in the Concow area for sure, and we did
22 not have the ability to send him a full response despite
23 his request. But the EC -- I did hear the ECC ask him,
24 "Hey, could this be a spot fire?" "We believe this is a
25 spot fire," I think was their words, "from the Camp
26 Fire." That's when it registered with me, oh, my God,

1 this fire is not only in Concow, it's now in Paradise.
2 And there was many more spot fires reported soon after
3 that.

4 Q. So, to your knowledge, when, when did the fire
5 first jump the West Branch of land and land within the
6 town of Paradise?

7 A. 8:00 o'clock, my best estimate.

8
9 (Grand Jury's Exhibit 101 was marked for identification.)

10
11 Q. Okay. Now, showing you what's marked as
12 Exhibit 101. It should be a photograph there in front of
13 you. Do you see 101?

14 A. Yes.

15 Q. And you see what's displayed up here on the big
16 board?

17 A. Yes, I do.

18 Q. Same?

19 A. Correct. They're one in the same.

20 Q. Describe for us what this is.

21 A. This is a, a infrared satellite image from
22 what's known as Land Sat 8, which I believe is the name
23 of the satellite. Was captured around 10:45 a.m. by an
24 individual by the name of Zeke Lender, who is a
25 Geographic Information Systems, commonly known as GIS, he
26 owns a company called Deer Creek Resources. Deer Creek

1 GIS. And they do a lot of mapping. And he was assisting
2 our GIS folks with mapping the fire.

3 Of course, at that time it was very early on in
4 the fire. So this was -- and I didn't see this image
5 until days after the fire started. But this is a, paints
6 a picture of where the fire was at 8:40 -- excuse me --
7 10:45 a.m. on November 8th and the significance of the
8 fire and the number of spot fires. And I think that's
9 what's significant here. I counted them up at one point.
10 And these little fires separate of the main body of
11 fire --

12 Q. You can get out and come up here to the board
13 where you can say, demonstrate what you're talking about,
14 point it out. Okay. And we can use the drawing
15 function, and you can draw on the board, as soon as it
16 comes up. What color would you like? Red?

17 A. Maybe try blue, something that's different.

18 Q. There we go. Blue.

19 A. Okay. So this is the main body of fire,
20 obviously, here, this line of demarcation on this side.
21 And so the intensity of the fire, the infrared satellite
22 picks up based upon the intensity of the fire. The more
23 intense the fire, the more the green and more glow that
24 you have. This is an area what's known as the right
25 flank. This is the heel of the fire right here. Right
26 flank of the fire. Left flank of the fire. And out in

1 the head of the fire.

2 This is an area of intensity here. Obviously
3 an area here. This here is the West Branch of the North
4 Fork of the Feather River, this drainage right here, as
5 it goes along with the town of Paradise.

6 This area here is Pentz Road. And these bright
7 dots that you see, for the most part, I believe are
8 structures. For the most part. This area here -- I'm
9 sorry, touched it with my other knuckle. This area here
10 -- this area here is an area along, you know, the fire's
11 left shoulder, if you will, that's burning intensely.
12 Similar to this area up here. But these areas in here
13 are structures.

14 What I really noted when I saw this picture,
15 and I knew it the day of the fire, but what I really
16 noted was the number of spot fires and how far developed
17 they are, meaning how large they are in size. If you
18 look at this particular fire right here, and I'm only
19 guestimating this fire is in couple 2- to 3,000 acres in
20 size, and this is at 10:45 in the morning, slightly over
21 four hours into the start of the fire way over here.

22 The other thing that's important to note about
23 this fire is this is right on the Skyway as you exit
24 town. A lot of the video that you've seen on social
25 media and on TV and what have you is people traveling
26 down Skyway through fire on both sides of the road. And

1 I, while I was not there in that particular area at the
2 time, I fully believe they were driving through this spot
3 fire. And I talked to my father, who was one of the
4 evacuees from Paradise. He told me that from about Town
5 Hall, little below Town Hall, all the way down to going
6 out of Paradise for quite some distance was on fire on
7 both sides of the road.

8 I also counted up -- at one point, I counted up
9 all of these little spots. There was a little teeny spot
10 there, spot there, spot here, et cetera.

11 This is, this is Magalia Dam right here. You
12 go across the Magalia Dam to get into the community of
13 Magalia right here. This spot right here, pretty
14 substantial spot fire below the community of Magalia.

15 I counted all of the spot fires external to the
16 main body of fire, and at one point I believe I came up
17 with 23 spot fires. I think that just speaks to how, how
18 much, how many embers were produced and how receptive
19 that fuel bed was to receive those embers and start new
20 fires.

21 Q. All right. So let's label these, because we
22 can save what you've been drawing on here.

23 So this big spot fire over here, what you said,
24 this is the Skyway?

25 A. I believe that's the Skyway.

26 Q. Skyway or Honeyrun? So let's mark that Skyway.

1 Then we have a little spot fire down here in
2 the far southwest?

3 A. Yeah. And I would have, you know, trouble
4 identifying exactly where that is in terms of road
5 structure. But this one I can tell you is just above
6 Little Butte Creek, because this is Little Butte Creek
7 that comes out of the Magalia Dam. So that spot right
8 there.

9 Q. So let's write on there Little Butte Creek.
10 Little, Little BC. Little Butte Creek. This is not real
11 conducive for a left-hander.

12 Then we have the left shoulder?

13 A. Yeah. I call that the left shoulder of the
14 fire. That's not a spot, but it just draws the intensity
15 that was going on in that drainage.

16 And if you are looking, that is in the West
17 Branch drainage, probably very similar to where we had
18 the Saddle Fire in 2016. We had a Saddle Fire on
19 September 5th thereabouts, 2016, in that same general
20 area.

21 Q. Spot fires?

22 A. Yeah.

23 Q. Right shoulder?

24 A. Yeah. Right flank. And then the shoulder as
25 it turns into the "head" of the fire, if you will.
26 That's the terminology that we use.

1 Q. Flank.

2 You said the heel back here? That's the origin
3 area of the fire?

4 A. Generally speaking. Not specific. The heel is
5 the, is just that, the backside of the fire.

6 This would be the left flank, left shoulder,
7 right shoulder, then the head of the fire, the spot fires
8 out front. And there's obviously a lot of spot fires.

9 This one here, so this -- little bit of
10 orientation -- this is the North Fork of the Feather
11 River. This is Big Bend here. Those of you who are
12 familiar with Big Bend and Lake Oroville, Feather River
13 makes a big bend and goes on down to the lake.

14 Q. So let's switch to blue. You say the North
15 Fork. Are you talking right here?

16 A. Yeah. This drainage here comes around like
17 this, makes a big bend. It's off the map here. Comes
18 back down.

19 Q. Kind of down there like that and then up
20 through here?

21 A. Yeah. Right here.

22 Q. All right. And then, again, this is the West
23 Branch of the North Fork? Oh, yeah, you have it in
24 there.

25 A. And ultimately they come together east of Lime
26 Saddle, probably a good geographical location.

1 Q. Okay. You said up here, this is where Magalia
2 Dam is?

3 A. Yeah, this is Magalia Dam right here, Paradise
4 Lake right there, and satellite imagery. That's --

5 Q. All right. These land -- these satellite
6 infrared imagery, is this something that's normally used
7 in the fire service?

8 A. Yes, but not, not this early into a fire. It
9 -- so, you know, it's like, it's like the military, you
10 know, you just don't know where the battle is going to
11 start in the fire service. The battle started someplace
12 up here in the Feather River Canyon that day. We have
13 to, we have to mobilize the military, get to that, we
14 have to mobilize the resources that do the planning and
15 the mapping and all of those kinds of things. And that
16 takes time.

17 So yes, it is not uncommon for us to use
18 infrared satellite imagery for looking for hot spots,
19 including hot spots along the line well into the fire,
20 but it's pretty uncommon for us to have it -- and I say
21 have it -- pretty uncommon for it to be mapped this early
22 in the fire. We did not have it -- the commanding, the
23 incident commander in the resources field did not have
24 access to this at that particular time of the day. It
25 came -- you know, I think that I saw it several days
26 after the start of the fire.

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(Grand Jury's Exhibit 101A was marked for
identification.)

(Grand Jury's Exhibit 102 was marked for identification.)

Q. Save it before we do something with it. We'll
save this and later print this out as 101A. There we go.

All right. So now we're just back to 101.

All right. Let's move on. You have 102 in
front of you?

A. Yes, I do.

Q. And the photograph you're looking at, Exhibit
102, is the same thing that's being shown on the board?

A. Same thing, just the other one was a, 101 was
an overhead perspective looking down. This is looking,
in essence, from east northeast to south southwest. So
north would be this way, indicative by this right there.
But north would be this way, east would be this way. So,
roughly, northeast trajectory.

Q. So basically if the origin area of the fire was
somewhere on a ridgetop right above Poe Dam, we'd
basically be looking at the fire from behind the origin,
toward the direction it's flowing; correct?

A. Correct. Yeah. The fire starting somewhere
down in here, going away into the town of Paradise, as

1 you see the corner of Paradise right here. This is,
2 basically would be Paradise, then Chico on that way.

3 Q. 191 being Clark Road?

4 A. Correct. 191 being Clark Road. Yes. It shows
5 it all the way to where it terminates with Skyway in the
6 north end of Paradise.

7 Q. Then Skyway running off out the top of the
8 picture towards Paradise -- towards Chico?

9 A. Yeah. And, in fact, here's that spot fire I
10 was referring to on the other one. It shows it overlaid
11 right on Skyway.

12 Q. So this is at 10:45, and we've already got the
13 fire clear up past Pentz Road and clearly over on to the
14 other side of the Skyway going down towards Chico;
15 correct?

16 A. Yeah. Chico would be further this way, going
17 around the Skyway and dropping into Honeyrun Road in
18 Butte Creek Canyon, or in the far northern side as it
19 comes into Paradise. So Honeyrun Road would come into
20 Paradise somewhere right here. This is Honeyrun
21 drainage.

22 Q. Then we also have spot fires up here around
23 Magalia to the south and southwest of Magalia?

24 A. It would be east of Magalia. Again, north
25 being oriented this way. So Magalia would be up here.
26 So there's --

1 Q. Here's Magalia right here.

2 A. Yeah. I'm sorry, you're correct. My mistake.
3 South, yes. I think -- to clarify, I think this is Old
4 Magalia.

5 Q. Okay.

6 A. Obviously, new, will be new Magalia. Or
7 Magalia proffers a little bit above it.

8

9 (Grand Jury's Exhibit 103 was marked for identification.)

10

11 Q. All right. Let's move on to 103.

12 What are we looking at on 103?

13 A. So on 103 we're looking pretty much -- this is
14 probably -- so we're basically looking, you know, from a,
15 again, from more of a north, northeast direction, north
16 being over here now. So north is down in this area.
17 We're kind of looking from a north to a south
18 perspective. And the fire is still mostly off to our
19 east, moving to the south and the west, if you will.

20 Here is that large spot fire. You can see that
21 Honeyrun drainage pretty prominently in this particular
22 picture.

23 Here's Magalia, the main -- if you will, the
24 POA, Paradise Pines Property Owners' Association. Fire
25 in Little Butte Creek below it.

26 Fire in Old Magalia. This is Old Magalia here.

1 Fire just on the north end of Skyway between,
2 roughly between the Old Magalia Church and New, what's
3 known as New Skyway. Actually, it would be right here.

4 Q. So we actually -- on 103, we actually have a
5 map of the main streets of Paradise overlaid over the top
6 of the --

7 A. Correct. In fact, here would be the Skyway.
8 It's a little bit -- you know, the lines are a little bit
9 squiggly if you will. But you have Skyway, Wagstaff,
10 West Wagstaff, probably Oliver. You have Clark. In
11 fact, one thing I draw my attention to here is this is
12 the mobile home park, Apple Tree Village, on Clark Road
13 right there where that spot fire is.

14 Pentz Road here.

15 Bille, Elliott, and Pearson.

16 Q. And then this feature right here, this is the
17 West Branch; correct?

18 A. That is correct.

19 Q. And going up to Lime Saddle would be right at
20 the top or above the top of the photograph?

21 A. Yes.

22 Q. So at this point, we've got the fire all, on
23 both sides of the West Branch. And when we go back to
24 the other, we see the line of all these bright yellow, we
25 can now see that those are all along Pentz Road?

26 A. Pentz Road is just interior up to about

1 Sawmill. If this is Sawmill here. Looks like the main
2 body of fire has progressed pretty consistently infield,
3 probably the best word to put it. You have all these
4 spot fires and the main body eventually catching up as
5 those spot fires are developing. Pretty consistent fire
6 edge at that point up to about Sawmill in the town of
7 Paradise approximately, with spot fires west and north of
8 the town a little bit.

9
10 (Grand Jury's Exhibit 104 was marked for identification.)
11

12 Q. All right. Let's move on to 104.

13 (Counsel confer.)

14 Q. (By MR. NOEL) Go ahead, kind of as Mr. Fogg
15 was pointing out, we can all see you pointing out
16 different things, but the court reporter can't get that
17 in the record. So can you describe, give us descriptions
18 of the areas that you're talking about. Or we can go
19 back and use the writing tools if you want.

20 A. Whatever you'd prefer. I don't know if I'm
21 very skilled with it, but I'll try.

22 Q. I've already used them; you can see my level of
23 skill.

24 A. I think it may be best described then.

25 This is the West Branch of the Feather River,
26 West Branch of the North Fork of the Feather River.

1 MR. FOGG: Chief Hawks, I'm sorry to interrupt.
2 When you say, when you point, can you describe it as it
3 appears to be the geographic feature on the left-hand
4 side of the screen, running from the top of the screen to
5 the bottom. Paint the picture of your words so it
6 appears in the transcript.

7 THE WITNESS: Okay.

8 MR. FOGG: Thank you.

9 THE WITNESS: You're welcome.

10 From the top portion of the screen towards the
11 left-hand side, extending down to about the middle of the
12 screen on the bottom is a prominent drainage known as the
13 West Branch of the North Fork of the Feather River.

14 Just to the west of that begins the town of
15 Paradise, with its road structure, as you can see here --

16 MR. FOGG: Chief Hawks, sorry to interrupt.
17 When you say to the west, I'm assuming it would be the
18 right-hand side of the image would be to the west; is
19 that accurate?

20 THE WITNESS: Yes, generally speaking, that
21 would be accurate. To the right-hand side of the image
22 would be to the west. So north here is down over here.
23 So west would actually be out over here. So it would be
24 the upper right.

25 MR. FOGG: And the bottom right would be
26 generally north?

1 THE WITNESS: Correct. Bottom right generally
2 north, upper right generally west.

3 MR. FOGG: And you were describing a spot fire
4 earlier, that would be generally in the top right-hand of
5 that image?

6 THE WITNESS: Correct. The large spot fire
7 that affected the Skyway is in the west upper right-hand
8 side of this image, would be towards the westerly
9 direction.

10 MR. FOGG: And when you were describing Magalia
11 earlier, that's in the bottom right-hand of this image,
12 generally?

13 THE WITNESS: Correct. Bottom right-hand of
14 this image, or more towards the north, northerly
15 direction.

16 MR. FOGG: I understand. Thank you, Chief
17 Hawks.

18 THE WITNESS: You're welcome.

19 Q. (By MR. NOEL) All right. You ready to move on
20 to 104?

21 All right. Now we have the photograph marked
22 104.

23 A. So 104 is, looking in the lower left part of
24 the screen, would be the southerly part of the screen,
25 and the upper right would be the northerly part of the
26 screen looking towards Magalia as referenced by the north

1 arrow on this Google Earth satellite image.

2 So to the lower right, which would be the east
3 side of the screen, we have again running from the upper
4 right down towards kind of the lower right of the screen
5 the very prominent drainage known as the West Branch of
6 the North Fork of the Feather River.

7 As we come out of that slope of that drainage,
8 we come along the fringe of the town of Paradise.

9 As we go interior a little bit, again, running
10 from the upper right to about the center, lower center of
11 the screen, so roughly from a north to a southeast
12 direction, we have Pentz Road.

13 And then the next interior road in a similar
14 orientation is Sawmill.

15 And then we go next to Clark, which is more of
16 a north-south directional road through the, pretty much
17 the core of Paradise.

18 Then finally over to Skyway, which runs from
19 the upper right north side of the image to the mid point
20 on the left side of the image, roughly a
21 north-to-southwest direction.

22 What's important to note here is the fire
23 progression. Again, at 10:45 in the morning it's pretty
24 consistent up into Sawmill Road. I might point that when
25 I was talking earlier, the spot fire that I encountered
26 when I was driving originally over here was roughly right

1 in about that area.

2 Q. Indicating Sawmill and --

3 A. Elliott.

4 Q. -- Elliott?

5 A. Indicating Sawmill and Elliott.

6 The fire pretty much progressed consistently up
7 to that point. And you see many spot fires scattered
8 throughout town, including this one here along Clark Road
9 near the Apple Tree Village. You can see the makeup of
10 that mobile home park there.

11 This is in an area interior of Clark, probably
12 pretty close to where the Safeway would be, just above
13 Elliott, to the north of Elliott, to the south of Bille.

14 You see several spot fires, of course, in this
15 image, including this large one up here under the, in the
16 Little Butte Creek, which would be the upper right side
17 of the map towards north.

18 And then down in the southwest this very large
19 spot fire along, along Skyway in the Honeyrun drainage
20 and down along Skyway as you leave town.

21 Q. All right. I think that's the last of these
22 we're going to go through, so you can resume your seat if
23 you'd like.

24 All right. So you said that you first became
25 aware that the fire had jumped the West Branch and
26 entered into the town of Paradise around 8:00 a.m. --

1 A. Yes.

2 Q. -- correct?

3 And subsequent to that was when you went, left
4 your office, and headed out?

5 A. Yes, headed towards Pentz Road.

6 Q. You started to tell us about that earlier.
7 Tell us what you found when you ventured out into, into
8 Paradise.

9 A. As I got closer to Pentz Road, I saw more and
10 more people very in tune with the rapidly developing
11 conditions of the fire. As I went from Almond Street out
12 Elliott I did not see -- I saw traffic, but nothing in my
13 memory sticks out as, as is really jumping out for, you
14 know, in terms of people fleeing. But as I went towards
15 the intersection of Sawmill and Elliott is when I really
16 first noticed people. That's when I encountered my first
17 spot fire. People packing up, preparing to go, and
18 people actually leaving -- you know -- moving around
19 their homes frantically, preparing. As I went north on
20 Sawmill, east on Bille, and over to the Pentz Road side,
21 it became more and more evident, which would be about the
22 center right of that Exhibit No. 104.

23 Q. Right in here?

24 A. About where you're pointing. That's Bille and
25 Pentz Road. That's pretty close to where I ended up,
26 just a little south of that intersection. Or southeast,

1 if you will. And it was very obvious at that time, a
2 fair amount of fire. Not as much fire as you see in this
3 picture, of course. That was closer to about 8:25, 8:30
4 in the morning when I arrived over there. A lot of
5 people packing up, fleeing on the road, trying to get out
6 of harm's way.

7 I will say that I was amazed at how composed
8 people were despite the chaos around them. They -- I
9 didn't see anybody really -- only one individual that I
10 recall really, I guess for lack of a better term, freak
11 out and go across country. Most people were very
12 concerned. I could see fear in their face, but they
13 stayed in line with the vehicle in front of them, and as
14 the vehicle in front of them moved forward.

15 Now, when I first got there, it wasn't solid
16 traffic. Again, around 8:25, 8:30, when I first arrived
17 there. But shortly thereafter, I would say by a quarter
18 to 9:00 or certainly by 9:00 o'clock it was pretty much
19 bumper-to-bumper traffic over there in one direction,
20 going north on Pentz Road. The southerly lane was, for
21 the most part, open on Pentz Road, which at times people
22 moved around and stuff, but --

23 Q. You mentioned something earlier, you said that
24 when you started coming across fire, you realized that
25 you didn't have the resources to fight it and that you
26 just needed to go in to rescue. That's where you talked

1 about the priorities being life, property, and
2 environment.

3 A. Yes. When I encountered the first spot fire,
4 it was just me in my SUV. And about half or three
5 quarters of an acre of fire. And my ability to put that
6 fire out was basically zero. Knowing that life was
7 threatened on Pentz Road, I proceeded on to Pentz Road to
8 try and assist people getting out of harm's way.

9 Q. So at some point as a unit did Cal Fire make a
10 decision to go from firefighting to simply search and
11 rescues and protection of life?

12 A. Yes. I know -- I don't know the exact time
13 frame, and that would be a question for Chief Messina,
14 who was the incident commander. I do know at one point
15 he made an announcement over the radio that all efforts
16 would be focused on life, safety, rescuing people, moving
17 people out of harm's way in order to get them out of the
18 path of the fire.

19 Q. Tell us about your effort to do rescue.

20 A. So, again, when I got over to Pentz Road,
21 people were, were focused, they were moving out of town
22 on their own. I was watching what was going on. There
23 was fire predominantly -- in fact, if you're looking at
24 that picture, fire to the right side of Pentz Road. Most
25 of the right side of Pentz Road was involved in fire in
26 various areas. There was some spot fires to the east of

1 Pentz Road early on when I first arrived around 8:30-ish.
2 But people were focused and they were doing what they
3 needed to do.

4 So I was simply monitoring what they were
5 doing. I actually had pulled -- frankly, I had pulled
6 off of the roadway a little bit, because when you're
7 there in a vehicle everybody wants to stop and ask you
8 questions. And I didn't need that complicating the
9 evacuation process. So I had pulled slightly off the
10 roadway and was just simply monitoring people as they
11 were moving.

12 I got out several times -- as traffic stopped
13 and I'd get out and check and make sure that traffic that
14 I couldn't see to my right, to my left was okay, there
15 was no issues, they could continue moving slowly. I
16 simply monitored it from that position for probably,
17 probably about a half an hour at that point, around 9:10
18 or 9:15.

19 While I was monitoring it, and it was back on
20 Chloe Court, a little bit off, I heard a siren/, I looked
21 up. I had been receiving text messages and radio traffic
22 and stuff, and I was trying to address those questions.
23 And I looked up, and I saw a couple of ambulances trying
24 to go around in the southbound lane that was mostly open.
25 They were trying to go around the traffic. And
26 unbeknownst to me at the time, they had a couple of --

1 three, I believe -- critical patients on board they were
2 trying to evacuate out of Feather River Hospital.

3 One of the ambulances, again, unbeknownst to
4 me, they were moving around, so I went back to trying to
5 address phone calls and things that were coming into me
6 in my position. And as I looked back up, I saw a
7 paramedic wheeling a gurney down Chloe Court towards me,
8 maybe 25 feet in front me. And I rolled down my window,
9 and I said, "What's going on?"

10 She said, "My ambulance is on fire."

11 And I looked over, I couldn't make it out
12 honestly, but it was on fire. So I told them to shelter
13 over in a driveway behind me, kind of off to my right
14 shoulder, and to move -- the second ambulance parked
15 behind the first ambulance on fire in the road, to pull
16 it into the driveway and bring everybody over here, we
17 would shelter them in that house.

18 So we did do that. Basically told them, "Hey,
19 we're going to shelter here in this home on Chloe Court,
20 and we need to protect and defend this home because this
21 is our save haven, if you will, from the ember ignition."

22 So one of the paramedics laddered the roof.
23 And I told him, "Hey, we need to clean the roof of all
24 the pine needles, and the gutters from all the pine
25 needles." He laddered the roof, crawled up on the roof,
26 and did just exactly that. He cleaned the valleys of the

1 roof that had accumulated. The valleys are kind of the
2 low depressions where pine needles often accumulate. He
3 cleaned all of those out of pine needles. He cleaned the
4 gutter out of pine needles. And one of the other
5 paramedics found some rakes and was raking stuff back
6 from around the house, all of the light flash fuels to
7 keep the house from catching fire from ember ignition.

8 The other paramedics were tending to the
9 patients which we were able to make access to the garage.
10 And we moved the patients to the garage. And they
11 protected those patients and watched them.

12 At the time, unbeknownst to me, there were
13 three nurses, they were also on board with those
14 patients. And they were huddled in the ambulance. Later
15 on they evacuated the ambulance, or exited the ambulance.
16 They came up to me, and I told them, you know, just to
17 assist in patient care.

18 So that went on for probably in earnest about
19 an half an hour trying to get them all situated and
20 secured while I was at times watching and monitoring the
21 traffic that was continuing to flow, albeit very slowly,
22 stop and go, out of northbound on Pentz Road.

23 Q. So were you able to defend that house?

24 A. Yeah. That house stands today because of the
25 work that those paramedics did to protect it, to keep it
26 from catching fire from embers. The home to the back of

1 the house, we -- they had defended for a while and were
2 not able to -- it eventually became overran by fire later
3 in the morning, I would estimate around maybe 10:45 or
4 11:00 a.m. But the home itself that they were, we were
5 seeking shelter in, they defended, and it's still there
6 today, as well as the home across the street, which had
7 fire in the gutter, pine needles in the gutter. It
8 caught fire from embers. And while all this was going
9 on, a couple of Butte County Search and Rescue
10 individuals ended up there with us. And so I told them
11 just to help the paramedics. When I looked across the
12 street, I saw the gutters burning across the street, I
13 told one of the search and rescue guys, "Go across the
14 street with a garden hose and put the gutters out." He
15 did, and that home is still standing today as well.

16 Q. So the patients, the paramedics, the nurses,
17 they all survived?

18 A. Yeah. In fact, one of the patients was a lady
19 who had just undergone a C-section and was paralyzed due
20 to that procedure from I believe the waist down. So she
21 was immobile. She actually had a birthday party about
22 two weeks ago and invited many of us to it.

23 Q. Eventually all those people were evacuated out?

24 A. Yeah.

25 Q. So after you were able to get those people to
26 safety and secure their safety, what did you do?

1 A. I went south on Pentz Road, or south -- south,
2 if you will, southeast on Pentz Road towards Feather
3 River Hospital. I had heard of people stranded on the
4 roads and abandoning cars down there. I know a lot of
5 our firefighters would protect and rescue people. I know
6 we had a dozer pushing vehicles out of the way to open
7 roads up.

8 I went down there to check on what was going on
9 down there. And I was not integrated into the command
10 structure of the operations at that time. I was, was
11 there mainly as a liaison between the, as the fire chief
12 of the town of Paradise, between the incident and what
13 was going on. But I went down there, tied in with the
14 branch director and the division supervisor. And I
15 actually picked up a, one of our board of supervisors who
16 was caught in the fire. And he was riding with the
17 division supervisor. The division, again, is the
18 geographical area of the fire. The division supervisor
19 had picked up a citizen who was a board member and was
20 transporting him to safety. And I took him in my vehicle
21 so that he could go on and continue with his function in
22 the command structure of the fire, since I was more
23 mobile.

24 I took that board member to his house, which
25 was just off Pentz and Pearson. His house was well
26 involved with fire. His pickup truck was parked in the

1 driveway. I told him, "Hey, get in your pickup and pull
2 it into the cul-de-sac, it will probably survive in the
3 cul-de-sac." Then he and I proceeded just off of the map
4 here, proceeded -- it would be westbound on Pearson down
5 through the hilby curve, which is a steep curve in the
6 Dry Creek drainage, and up to the other side. And we
7 eventually got to his vehicle. And I was able to get him
8 back to his vehicle and told him to go to Feather River
9 Hospital, because that was the largest open area where we
10 could shelter people. Roadways were still pretty
11 congested at that time.

12 Q. All right. Now I want to move, change topics,
13 to the aftermath. And as part of the normal protocols
14 and procedures of a fire, does Cal Fire have, does Cal
15 Fire do damage assessments?

16 A. Yes. Very actively in the last -- very
17 actively and very formally structured process. This has
18 really been going on now for probably three years or so.
19 Before it was done in paper format. Now it's done,
20 collected on -- a tablet collects geographical location
21 of the incident, and also records basic information about
22 the structure as to the extent that the assessment teams
23 were able to determine things like single -- was it a
24 single-family residence or multi-family residence? I
25 believe it even includes some of the building
26 construction features, if they're identifiable.

1 Q. Can you describe for us the damage assessment
2 procedures.

3 A. So based upon the magnitude of the fire and the
4 damage, there is a, what's known as damage inspection
5 lead, a DINS lead. And that oversees the operation. And
6 then there are teams, damage inspection -- I'm not sure
7 if there's a title specialist, but damage inspection
8 teams usually work in teams of two. And they will, they
9 will basically break the damaged areas into quadrants or
10 sections, if you will. I'm not sure specifically, but
11 they break them into sections. And then they send those
12 teams out to assess the damage.

13 They're looking at, you know, destroyed -- and
14 I don't remember the exact breakdown. I think it's 0 to
15 9 percent damage, 10 to I'll say 30 percent. There's
16 categories that they break down the level of damage. And
17 then, obviously, fully destroyed. And then undamaged or
18 no damage.

19 And those teams collect that data in a GIS
20 format through tablets. As long as they have cellular
21 connectivity, that information will upload constantly as
22 the course of the day's assessments go on. And that's
23 what was occurring with the Camp Fire damage inspection.
24 If they don't have cellular connectivity, such as some of
25 the remote areas in Concow, when they come back and
26 connect, all that stuff is uploaded. It's kept and

1 maintained in a, our GIS database, geo database.

2 Q. What is a GIS?

3 A. Geographic Information System. Probably the
4 best way to describe it is a, is what's commonly known as
5 a latitude and longitude or a point on earth.

6 Q. So the inspectors are going out with their
7 tablets, they're going out to individual buildings,
8 structures, whatever you want to call them, assessing the
9 damage, putting that information into the tablet, and
10 then it's automatically uploaded to Cal Fire?

11 A. It's uploaded to, yeah, in our GIS database
12 maintained by Cal Fire. Yes.

13 Q. That's a database that's maintained in the
14 normal course of business by Cal Fire?

15 A. To the best of my knowledge, yes.

16 Q. These are records that are made in the normal
17 course Cal Fire?

18 A. Yes.

19 Q. And the records are made at or about the time
20 of the occurrence?

21 A. Yes. It's as rapidly as they can be collected
22 given the magnitude of the fire and the topography.

23 Q. And they're actually making the record
24 simultaneous to when they're assessing the damage;
25 correct?

26 A. Yes, correct. They're taking that information.

1 Q. And then that information is taken and it's
2 basically overlaid onto a assessor's map of the area;
3 correct?

4 A. I don't know if it's truly an assessor's map,
5 but it is a map of the area, a GIS platformed map that
6 has roads, roads and other features in there. It can --
7 it's layers, so it can have a road layer, it can have
8 assessor's parcel data. Yes, you're correct in that. It
9 can have a number of GIS-based layers in that map.

10 Q. And, most importantly, it documents the
11 locations of every structure in the area?

12 A. To the best of the inspector's ability, every
13 structure, yes.

14 Q. And that builds on it what's known as a Damage
15 Inspection Map; correct?

16 A. Yes.

17 Q. So as the Butte County Fire Chief, did you
18 review the Damage Inspection Reports for the Camp Fire?

19 A. The report is, I believe, if I remember
20 correctly, it's been a couple of months since I've looked
21 at it, skimmed through, it's well over -- the detailed
22 report is well over I think 17- or 1,800 pages or
23 something like that. So yes, I have skimmed through and
24 I have certainly looked at the summary reports associated
25 with it, including some of the maps.

26 Q. And we are not going to get into the details of

1 all of that, we want to go to the summary stuff. How
2 many structures were destroyed in the Camp Fire?

3 A. I believe that the figure is 18,804 from
4 memory.

5 Q. Is that figure broken down between residential
6 structures, business structures, and other structures?

7 A. Yes. And I don't have the details in front of
8 me. The -- so 18,804 is the number of structures
9 destroyed. In addition to that, there are structures
10 that are damaged that drive that figure up further into
11 the 19,400 range. I don't recall the exact figure.

12

13 (Grand Jury's Exhibit 105 was marked for identification.)

14

15 Q. Okay. All right. I want to move on to --

16 I have your notes here, but I wanted to move on
17 to 105, Exhibit 105.

18 Do you see Exhibit 105?

19 A. I do.

20 Q. What is Exhibit 105?

21 A. Exhibit 105 is a map showing the perimeter of
22 the Camp Fire, the outer squiggly lines, if you will,
23 with -- and, of course, the details are a little hard to
24 see, but it also shows all of the structures that have
25 been reported during the damage inspection and their
26 state, whether they're destroyed, whether they're no

1 damage, whether they're lightly, moderately, or severely
2 damaged.

3 If we were to zoom in, we would see -- what
4 jumps out is the number of red structures on the map. If
5 we were to zoom in, we would definitely see potentially
6 green and black structures. I think perhaps one of the
7 other maps will show that.

8 Q. We'll get to that in a second.

9 So this squiggly red line that's running all
10 around inside of here, that's the footprint of the Camp
11 Fire?

12 A. Yes. Correct. And right there where you last
13 pointed, you'll see -- right there -- you'll see where
14 the Camp Fire spotted across Lake Oroville on the West
15 Branch and down into the Cherokee community. And then to
16 the right of that a little bit, where you're pointing
17 there, is the Bloomer Hill area above the -- to the, it
18 would be the west side of Berry Creek, to the best of my
19 recollection in terms of degrees. But west side of Berry
20 Creek. So it spotted across Lake Oroville in several
21 locations.

22 Q. And comes back up, jumps the river again, goes
23 up towards the top right-hand corner?

24 A. Yes.

25 Q. So everything that's inside that, the red line,
26 is the footprint, is inside the footprint of the fire?

1 A. Yes. That is correct.

2 Q. And each of the red dots represents a structure
3 that was destroyed?

4 A. Yes.

5
6 (Grand Jury's Exhibit 105A was marked for
7 identification.)

8
9 Q. Now, let's move on to 105A. Do you have that
10 in front of you?

11 A. I do have that in front of me.

12 Q. And what is Exhibit 105A?

13 A. This is a zoomed-in version of the same map
14 that we just looked at, but zoomed in to the Paradise
15 area.

16 You see just to the right, where Concow Lake
17 is, the right-hand side of the map about midpoint, where
18 you're pointing there, is Concow Lake, but the map is
19 designed to be zoomed in to the town of Paradise
20 predominantly to show a little bit better detail. And
21 it's -- this, I just saw this map for the first time a
22 few days ago, so I'm not well oriented with it in its
23 level of detail, but clearly the red dots are the number
24 of structures destroyed. I don't see any orange, yellow,
25 green, or black dots, which would indicate -- the orange,
26 yellow, and green would indicate some level of damage.

1 Not fully destroyed, but some level of damage. And black
2 would indicate no damage to the structure.

3 Q. So there are some yellow and green in here, if
4 you look really closely.

5 A. According to the legend that I'm looking at on
6 this map, which is very hard to see, the answer to that
7 is yes. However, I do not see any of those on the map,
8 but it might just very well be because of the number of
9 fully destroyed structures identified in red outweigh by
10 far the no damage and moderately damaged structures.

11 Q. So let's give some context. On the right-hand
12 side, starting down at the bottom of the map, there's a
13 blue line representing water coming up; correct?

14 A. Yes.

15 Q. And then the water kind of stops, but follows
16 the contour of a geographic feature all the way up
17 through the top of the map; correct?

18 A. That is correct.

19 Q. That would be the West Branch?

20 A. That is correct.

21 Q. So everything to the right of that is Concow;
22 everything to the left of the West Branch would be the
23 town of Paradise?

24 A. Yes, out to the point of where we get into
25 Butte Creek Canyon drainage to your left side -- you're
26 right.

1 Q. And the streets aren't marked, but you can see
2 a street that starts just to the right of "N" in
3 inspection on the bottom and runs clear up all the way to
4 the top. That would be Pentz Road; correct?

5 A. That is correct. And for orientation, that
6 cluster of red dots on the lower end of Pentz Road, my
7 best estimate, that would be the Quail Trails Mobile Home
8 Park, which is right at the border of the town of
9 Paradise and county of Butte, unincorporated area.

10 Q. So each one of these red dots represents a
11 house or a structure that was destroyed?

12 A. Yes.

13 Q. And each one of the green dots that are very
14 hard to see is a structure that survived with minimal
15 damage; correct?

16 A. Yes. I believe, and I can't read it, but I
17 believe the green signifies damage percentage of 0 to 9.
18 I believe yellow signifies 10 to 30. Unfortunately, I
19 can't see this very well. Then I think the next color is
20 orange, and I believe that is either 30 to, to 90 or
21 something of that nature. I really can't see it very
22 well, unfortunately. You might be able to read it.

23 Q. You can come up and read it off the board here
24 if you want.

25 A. I was afraid you were going to say that.

26 Q. Hard to fit all this information on an 8-by-10

1 picture.

2 A. I can't read that. It looks like -- so it
3 appears that the yellow says minor; orange is signified
4 by major; green, I cannot read it at all.

5 Q. Looks like it says affected.

6 A. Okay.

7 Q. Would that be right?

8 A. It's hard to tell, but very likely could. I
9 mean, if I had a better picture of the map.

10 Now that I'm close, I can see green, some green
11 and some yellow in this map. Now that I'm up close.
12 But, obviously, predominately red. Looking for something
13 that's not damaged; black. There's a black dot here,
14 structure that's undamaged.

15 Q. Which is really strange because you're pointing
16 out a structure that's basically in the middle of the
17 picture, all around it is all red, and then there's
18 black, and there's a couple of greens right around it.
19 Is there any explanation for how or why that occurs?

20 A. Well, we'd have to look at each structure to
21 try to get a feel if it might have survived by simply
22 blind luck, or if it might have survived because it has
23 better defensible space than neighboring structures, or
24 if it might have survived because it has better building
25 structure, or something collectively, all three of those.
26 It's hard to tell. It's hard to say. I've driven the

1 area many times, and people will say, "Why is that
2 structure standing?"

3 I will say, "There's no good reason why that
4 structure is still standing, because it's all wood-sided.
5 Surprised it's there. Lucky." And then I'll drive by
6 another structure that I have known, seen and known in
7 the past, and think, man, that structure had pretty
8 decent defensible space, pretty good built construction,
9 it's burned down.

10

11 (Grand Jury's Exhibit 105B was marked for
12 identification.)

13

14 Q. All right. Let's move on to 105B. You can
15 stay up here.

16 Recognize what's marked as 105B?

17 A. 105B is, again, a zoomed-in Damage Inspection
18 Map, focusing on the Magalia community predominantly.

19 You have the north end of Paradise here, that I
20 might point out in this lower center section of the map
21 is where Pentz Road and Skyway meet. This would be the
22 north corner of the town of Paradise. And then we get
23 into what's known as Old Magalia here. And then the
24 Paradise Pines Property Owners' Association area over
25 here. And this is an area of the fire that had a lot of
26 damage.

1 I might point out, too, that in the damage
2 inspection they also look at homes that are just on the
3 fringe of the fire perimeter to see if they suffered any
4 damage; maybe ember ignition or things of that nature.
5 That's what you're seeing right up in here, some homes
6 that are right along the fire's perimeter, outside, and
7 they're assessing them to see if there was any damage as
8 well.

9 Q. All right. And so just for more, we've got the
10 lake up here, Magalia Dam --

11 A. Yes.

12 Q. -- correct?

13 A. Yes. Magalia Dam, Magalia Reservoir.

14 Q. And what you're talking about between Old
15 Magalia, is this between the dam and the intersection of
16 Skyway and Pentz, right at the top of the town of
17 Paradise; correct?

18 A. Yes.

19 Q. And the Paradise Pines Home Owners' Association
20 is all of this residential area over here on the left
21 side of center?

22 A. Correct.

23 Q. So, again, a lot of destruction with red dots?

24 A. Yes.

25 Q. So I want to go back to something here in a
26 second.

1 You can go back and sit down.

2 And it's a question that keeps coming up about
3 the speed at which this fire moved. Does Cal Fire have a
4 system or any way of measuring and estimating the speed
5 of fire?

6 A. In general terms, yes. And I'm trying to
7 remember the exact terminology. But we have four broad
8 categories that we measure fire in. This is a general
9 rule of thumb. When the first-arriving officer with the
10 fire department arrives, they give what's called a report
11 on conditions. And they make an assessment based on how
12 fast the fire is traveling on this rule of thumb, four
13 thing. The most -- the highest level of rate, what we
14 call "rate of spread," is known as "critical," and that's
15 any spread over 3 miles an hour. And this fire far
16 exceeded that.

17 Q. So if a fire is moving faster, spreading faster
18 than 3 miles an hour, that is considered a critical rate
19 of spread?

20 A. Yes.

21
22 (Grand Jury's Exhibit 110 was marked for identification.)

23
24 Q. All right. I want you to go back to an exhibit
25 there in front of you, 110. We kind of skipped over this
26 one earlier. But I want to come back to it and ask you

1 if you recognize Exhibit No. 110.

2 A. I do recognize it. I did not create this, this
3 particular map, one of my peers did. However, I created
4 a similar map than this. But I do recognize this map.

5 Q. You're familiar with what's on this map?

6 A. I am.

7 Q. And this map -- and, again, this is the --
8 let's assume these as hypotheticals: That the fire
9 starts above Pulga at approximately 6:16 a.m., and that
10 at approximately 7:44 a.m. the fire is reported on the
11 west side, the Paradise side, of the West Branch?

12 A. Yes.

13 Q. So that's an hour and a half; correct?

14 A. Yes.

15 Q. And do you know the approximate distance
16 between those two points?

17 A. Using the Google Earth measuring tool as you
18 see on Exhibit 110, it was calculated from the
19 approximate area of origin near the community of Pulga to
20 Concow Lake, which where our first reported spot fire
21 was. From there on to Paradise. It's not an exact
22 linear measurement. As you can see, the angle goes from
23 one point to another and then over. But it is probably 7
24 plus miles, clearly. And arguably upwards of 7.4 miles.

25 Q. So according to the measuring tool, from the
26 approximate area of origin to the Concow Lake area, where

1 fire was reported at 7:33 a.m., is 4.2 miles; correct?

2 A. Yes.

3 Q. So in 1 hour and 17 minutes, that fire went 4.2
4 miles?

5 A. Yes. I'm not familiar with the specific time
6 frame.

7 Q. Right. Assuming that, the times on here.
8 We'll get back to those later on. But for right now,
9 we're just assuming that, those times.

10 A. Yes.

11 Q. And then 11 minutes later, that fire was
12 already on the west side of the West Branch in the town
13 of Paradise, another 3.2 miles away?

14 A. Yes. And when we talk about fire, we are
15 talking about spot fires in advance of the main fire. So
16 the main body of fire was progressing across the
17 landscape as new spot fires were developing out in front
18 of it. But, yes, that main first reported spot fire,
19 roughly, 7.4 miles from the origin, in Paradise reported
20 around 7:44 a.m.

21 Q. So basically in just under an hour and a half,
22 this fire traveled 7 1/2 miles?

23 A. Approximately, yes.

24 Q. You said 3 miles would be considered a critical
25 rate of speed?

26 A. Yes.

1 Q. You've been a firefighter for a long time;
2 right?

3 A. I have.

4 Q. Have you ever seen a fire spread as fast as the
5 Camp Fire did?

6 A. No. The only fire that I was physically
7 assigned to that had a comparable rate of spread was the
8 Cedar Fire in San Diego that traveled 30 miles in 15
9 hours on average. The only reason I know that is because
10 I did the GIS mapping of that fire, parts of the GIS
11 mapping of that fire, calculated the progression. And,
12 again, it moved 30 miles in 15 hours. But I have never
13 seen a fire in northern California move like this fire
14 did. Now, obviously, many of the 2017 fires did develop
15 rapidly. I'm not familiar with the specifics of those
16 fires. But from my experience, this is the, by far, the
17 most rapid fire development of any fire from its
18 inception into the first few hours of the fire in
19 northern California.

20 MR. NOEL: I think that's all I have.

21 Do we have any juror questions?

22 (Counsel confer.)

23 MR. NOEL: All right. These are very good
24 questions. I anticipate that those questions are
25 actually going to be answered by the next witness, which
26 is going to be Assistant Chief Messina, who was the

1 incident commander and was actually the one giving the
2 orders you're asking about.

3 So, like I said, these are very good questions.
4 If you don't mind, we'll save these for Assistant Chief
5 Messina.

6 So were there any other questions?

7 All right. Chief Hawks, I think we're done
8 with you for the day.

9 THE WITNESS: Thank you.

10 MR. NOEL: You're excused.

11 The admonition.

12 GRAND JURY FOREPERSON: We have to do the
13 admonishment?

14 MR. RAMSEY: Yes.

15 GRAND JURY FOREPERSON: You are admonished not
16 to discuss or disclose at any time outside of this jury
17 the questions that have been asked of you or your answers
18 until authorized by the Grand Jury or the Court. A
19 violation of these instructions on your part may be the
20 basis for a charge against you of contempt of Court.
21 This does not preclude you from discussing your legal
22 rights with your own attorney.

23 Chief Hawks -- is it Hawks?

24 THE WITNESS: Yes.

25 GRAND JURY FOREPERSON: What I have just said
26 is a warning not to discuss this case with anyone except

1 the Court, your lawyer, or your -- or the district
2 attorney.

3 THE WITNESS: Yes.

4 GRAND JURY FOREPERSON: Do you understand?

5 THE WITNESS: Yes, I understand.

6 GRAND JURY FOREPERSON: Okay. Thank you.

7 [DISCUSSION OMITTED.]

8 --oOo--

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COURT REPORTER'S CERTIFICATE


This is to certify that I, JENNIFER L. HUNT, CSR, a Certified Shorthand Reporter of the State of California, was present at the time and place the foregoing proceedings were had and taken in the within matter; that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings and afterwards caused my said shorthand writing to be transcribed into typewriting. Further, pursuant to CCP237 all reference to jurors by name has been redacted.

The foregoing pages beginning at:

1 through 185

are certified to be a complete transcription of said stenographic shorthand notes.

DATED: THIS 6th day of JUNE 2022



JENNIFER L. HUNT, CSR 10735
OFFICIAL REPORTER

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IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

REDACTED

BCSC-2019-GJ-01

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, APRIL 30, 2019

VOLUME 5

OROVILLE, BUTTE COUNTY, CALIFORNIA

LISA MCDERMID WELCH, CSR 10928, OFFICIAL COURT REPORTER

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1 OROVILLE, BUTTE COUNTY, CALIFORNIA

2 APRIL 30, 2019; 8:45 a.m.

3 (Confidential Grand Jury Hearing Proceedings)

4
5 [ROLLCALL OMITTED.]

6
7 [DISCUSSION OMITTED.]

8
9 MR. NOEL: We have two witnesses this morning. We
10 were able to -- to get Captain Marcus Ekdahl to come in.
11 He's the dispatcher who took the initial 9-1-1 call. He
12 will be relatively brief. We will start off with
13 Captain Messina.

14 MR. RAMSEY: Assistant chief.

15 MR. NOEL: Assistant chief. Assistant Chief
16 Messina.

17 [Assistant Chief Messina enters the courtroom.]

18 MR. NOEL: I'm sorry. So if we're ready.

19 GRAND JURY FOREPERSON: I will go ahead and swear
20 you in. Please raise your right hand.

21 Mr. Messina, do you solemnly swear that the
22 evidence you shall give in this matter pending before the
23 grand jury shall be the truth, the whole truth, and nothing
24 but the truth so help you God?

25 THE WITNESS: I do.

26 GRAND JURY FOREPERSON: Thank you. Have a seat.

Please state your name for the record spelling your last name.

THE WITNESS: John Messina, M-e-s-s-i-n-a.

EXAMINATION

BY MR. NOEL:

Q. By whom are you employed?

A. Cal Fire.

Q. In what capacity?

A. I'm an assistant chief for the North Division of Butte County.

Q. How long have you been with Cal Fire?

A. Twenty years. Prior to that, I spent ten years with the Federal Wildland Firefighting Agency.

Q. Could you walk us through your training and your experience that qualifies you to be an assistant chief at Cal Fire.

A. So like I said, I'm ten years into the fire service. I have done multiple jobs within Cal Fire between air attack officer to administrative chief to field battalion chief and now field division chief. I graduated from Chico State in 1996ish. Kind of forget sometimes as it goes by.

I have a Bachelor's in GIS. I did a lot of planning for the fire department specifically Butte County using those type of skills.

As far as qualifications, I'm an incident

1 commander. I'm one of the six Cal Fire statewide management
2 teams. Some of you may be familiar with it. They're the
3 ones that come in after a major incident in the state of
4 California and they manage the incident similar to the Camp
5 Fire.

6 So who showed up that day was Incident Management
7 Team Four, and it was composed of fire professionals
8 throughout the state in different capacities. I'm assigned
9 to Team Five. That's where I'm at.

10 Q. You said you started off as a federal firefighter?

11 A. I did. I worked for the Bureau of Land Management
12 right out of high school.

13 Q. Where were you a firefighter for BLM?

14 A. At the time it was called Nor Cal District, and I
15 worked in the Alturas and Susanville area. And during that
16 time I just worked seasonal as I was attending San Diego
17 State at the time. It was just a seasonal job. That was
18 kind of what a lot of people did was seasonal work while
19 you're working on your Bachelor's degree.

20 Q. And then you ultimately graduated from Chico State?

21 A. Correct.

22 Q. You said with a degree in GIS?

23 A. Yes.

24 Q. What is GIS?

25 A. Geographical Information System. At the time it
26 was considered geography with an emphasis in topography, but

1 now it's a full Geographical Information System degree which
2 basically uses maps to analyze data.

3 Q. Is that relevant to your fire service?

4 A. Believe it or not, it has been. As we know, there
5 is a lot of analysis that takes place. And that skill set
6 definitely has helped with collecting data, plotting it,
7 assessing it. So believe it or not, it really has. I
8 didn't think it would, but it did.

9 Q. You had mentioned incident management teams. Can
10 you explain to us a little bit more in depth what an
11 incident management team is within Cal Fire.

12 A. Absolutely. Like I said, there's six of them. And
13 they are what is considered the experts in the field of
14 emergency management. Well, it's logistics, planning,
15 operation, incident command. And what they do is they go
16 out and grab these experts and say "Hey, we want to form a
17 team." And they're composed of two members.

18 So when an incident happens whether it's a wildland
19 fire, earthquake, you know, any major catastrophe, flooding,
20 local CSD the state can take those teams to go in and
21 assist. And they will take over the total operation. And
22 basically, you take the workload off the local CSD so they
23 are not overwhelmed.

24 Similar to the dam. I know you're familiar with
25 that; the dam. We had two management teams, one assisting
26 the DWR and then one assisting Butte County in case

1 something happened. They were going to be the technical
2 expertise to support the major emergency. We typically
3 don't come in on small, only major complex incidents.

4 Q. You said two members of each team?

5 A. Yeah. It varies a little bit.

6 Q. And six teams?

7 A. Six teams.

8 Q. Are all of the members of the teams from Cal Fire?

9 A. No, they're not. They're composed of a whole
10 government component and a Cal Fire component. There are
11 some numbers associated with these teams of how many you're
12 supposed to have of local government. That way we have a
13 good representation. When you're traveling the state, you
14 know, you show up to LA City to assist LA City, you're going
15 to have some potentially city and local government
16 firefighters and emergency responders on that so we speak
17 the same language.

18 Q. So as you said, we have become all too familiar
19 with the major disasters around here and the TV coverage,
20 seeing people from various counties throughout the state at
21 daily press briefs.

22 Are those incident management people if they're
23 wearing a red hat? When you guys watch on video, those are
24 the incident management team members?

25 A. Some are from Butte County. Coincidentally, we had
26 some Cal Fire employees, our own team four. But some of

1 those were from out of the area. But what we make sure we
2 do is if we come into -- let's say, for instance, my team
3 goes off to Napa County. We incorporate the local
4 responders so they have complete input in the plan we just
5 implemented for them. We're a forcible multilayer for lack
6 of a better term.

7 Q. How long have you been involved in the incident
8 management team?

9 A. I started in 2008 on the Humboldt Fire incident
10 here in Butte County. I spent the majority of it on the
11 operations side which means I would be the person in charge
12 of all operational aspects of the incident. And two years
13 ago I was voluntarily asked to move up to the incident
14 command position. And that's where I serve now.

15 Q. Describe for us what you mean when you talk about
16 operations.

17 A. So the operations section of an incident is
18 responsible for just that; anything that has to do with
19 mitigating the emergency. Everything that is outside of the
20 support is to have a role, but they are not considered
21 operations. There's a lot of folks with roles and a large
22 role that supports what we're doing operationally whether
23 it's putting out the fire, stopping a flood. Whatever the
24 operation is to mitigate the emergency, that is what that
25 section within the team is responsible for.

26 Q. And how is that different from the incident

1 command?

2 A. So the incident command decides what operations we
3 are going to do and delegates that down to that section, and
4 that section implements it. So the incident command
5 establishes the incident objectives. And those are usually
6 established with --

7 For example, I will use, for example, Butte County.
8 If Butte County had an incident here, not a wildland
9 incident, we'd work with Butte County county administration.
10 They'd give us our objective marching orders. Here's what
11 we want you to do to help us mitigate this emergency. The
12 incident command team portion of it would establish those
13 objectives and then delegate it down to their sections to
14 implement which is the operation section.

15 Does that make sense?

16 Q. To me it makes sense.

17 What was your position with Cal Fire on November 8,
18 2018?

19 A. I was the administrative chief for the unit at the
20 time. The administrative assistant chief.

21 Q. What does it mean to be an administrative assistant
22 chief?

23 A. I was responsible for all administrative functions
24 in the unit from the emergency command center, human
25 resources, budget. The paper-pushing stuff.

26 Q. Were you on duty at approximately 6:30 a.m. on

1 November 8th?

2 A. I was. We -- yes.

3 Q. What was your assignment on that day?

4 A. To report to my office. How we structured the unit
5 is one assistant chief has the duty -- we call it duty
6 coverage. They're responsible for all operations in Butte
7 County and Cal Fire for a seven-day period. And we rotate
8 every four weeks. There's four of us.

9 So that day I did not have the duty. Another
10 division chief did. When you don't have the duty, you just
11 go to your normal job which was administration at that time.

12 Q. Where was your office located at that time?

13 A. 220 Grand Avenue here in Oroville.

14 Q. When did you become aware of the Camp Fire?

15 A. I got a phone call from a battalion chief asking if
16 I was listening to the radio. It was around 6:45. If I was
17 listening to the radio and what was going on in Jarbo Gap.
18 And I hadn't been listening to the radio at that time which
19 is normal if you don't have the duty that early in the
20 morning to be paying attention to the radio.

21 Q. So did you begin monitoring the radio?

22 A. Oh, yeah, instantly. And we have access to some
23 fire watch cameras. And I immediately pulled up the fire
24 watch camera just to see if what was being portrayed on the
25 radio was actually -- you could visualize the camera to see
26 if it actually matched up.

1 Q. Were you able to locate the fire on the fire watch
2 camera?

3 A. One of the fires, yes.

4 Q. Okay. We'll get to that in a minute.

5 What steps did you take once you became aware of
6 the fire?

7 A. So at that point after we discussed it -- and, you
8 know, it was in November and the wind was blowing. And
9 there are sometimes, you know, when the wind is blowing. A
10 lot of times -- not a lot of times. There are times when
11 you think "Oh, man." You kind of maybe overreact. And so
12 we were initially thinking -- to me personally from home
13 thinking "Oh, the wind is blowing, but we'll catch it at 60
14 acres because it's November. It's 42 degrees out. We
15 shouldn't have a problem dispatching that." That was my
16 initial response.

17 The duty chief at the time called me and asked if I
18 was available to respond up. And typically, how we operate
19 is an incident happens in the fire department. Regardless
20 if it's a wildland fire or a structure fire we have
21 battalion chiefs in an initial response to go. The
22 battalion chief does the incident command.

23 As the complexity grows, then an assistant chief
24 will respond to either help or assume command. But we don't
25 usually go on the initial response until -- we don't respond
26 until we know that it's a significant incident and they are

1 going to need some help at the incident command post.

2 Q. So at some point were you requested to respond to
3 the incident?

4 A. I did. He asked if I was available to go up there.
5 And he was the duty chief who -- he was responsible to go to
6 the main command center and coordinate the operations from
7 there. And then we ask another assistant chief who doesn't
8 have the duty to respond up there and help coordinate. And
9 that's what he asked me to do.

10 Q. And I'm sorry. Who was the duty chief at the time?

11 A. Garrett Sjolund was the duty chief.

12 Q. Okay. So Chief Sjolund asked you to respond to the
13 incident command?

14 A. Correct.

15 Q. At some point did you take over as incident
16 commander for the fires?

17 A. Yeah. Like I said, initially usually I go up and
18 assist the battalion chief, mentor him a little bit, let him
19 run the incident. Once it expands beyond, you know, a small
20 little incident, then we will step in and we will assist
21 either assuming command or taking a portion of the operation
22 off of him to help with span and control.

23 When I initially got there, I was helping him
24 coordinate a little bit. And it was obvious just from some
25 of the reports coming back that this was going to be a
26 fairly significant incident. So that's about ten minutes

1 after I showed up at the incident command post that I
2 assumed command.

3 Q. Could you spell Chief Sjolund's name for us.

4 A. The last name is a handful. Let me write it down
5 real quick. S-j-o-l-u-n-d, Sjolund.

6 Q. Common spelling; right?

7 A. Common spelling.

8 Q. All right. So as the incident commander, what were
9 your responsibilities?

10 A. Like I said, the incident commander is responsible
11 for setting the overall objectives of the incident,
12 responsible for the overall operations dictating what
13 happens, who goes where, and obviously the overall
14 responsibility for the overall safety of the civilians and
15 the firefighters that are assigned to it.

16 Q. As the incident commander, did you -- were you
17 responsible for everything that was going on with the Camp
18 Fire?

19 A. Yeah, yes.

20 Q. How long were you the incident commander?

21 A. From about 7:44ish to -- it's disputable when the
22 incident management team took command and when we actually
23 transitioned out. But until about 9 o'clock that night. I
24 stayed actively engaged in the operation through about 4:30
25 the next morning.

26 Q. So as the incident commander is it important for

1 you to be familiar with all of the factors and facts of the
2 incident you're in charge of?

3 A. Absolutely, absolutely.

4 Q. So you became intimately familiar with basically
5 everything about the early hours of the Camp Fire?

6 A. Yes.

7 Q. So I'd like to go through a timeline with you of
8 the Camp Fire. And you put your timeline up here on the
9 board so that it can be seen.

10 When was the initial dispatch to the Camp Fire?

11 A. 6:31.

12 Q. And what did that involve?

13 A. There is a standard response plan in Cal Fire which
14 means on a wildland fire -- I'm looking for the exact term.
15 On what is considered a high-level dispatch depending on the
16 weather, you get what is written down on there; six engines,
17 two crews, two bulldozers, two air tankers, a helicopter,
18 chief officer in prevention. The voluntary staff on the
19 state side is a bonus. And we use the -- Butte County
20 volunteered their water tenders and fire engines. Anything
21 that comes outside of the state is a plus.

22 Q. Okay. So this was a red flag day; correct?

23 A. Correct.

24 Q. A high fire threat day?

25 A. Yes.

26 Q. High winds blowing through the canyon; correct?

1 A. Correct.

2 Q. And low moisture content, no trace. Only trace
3 amounts of rain for up to six -- or over six months. Is
4 that correct?

5 A. Correct.

6 Q. So this initial batch that is displayed up here was
7 more than, say, Cal Fire was expecting to a similar fire in
8 February after 20 inches of rain?

9 A. No. On a formal -- you know, depending on the fire
10 danger rating that we established, there is a low, medium,
11 high. And we'll adjust our dispatch based off of that. So
12 on a high that is a normally high dispatch. A low would be
13 something significantly less so we're not committing a bunch
14 of resources to an incident that doesn't dictate it.

15 Q. And November 8, 2018, was a high day; correct?

16 A. That was a high day.

17 Q. Now, can you walk us through -- we're looking at a
18 bunch of numbers here, letters, and themes. "B2118, initial
19 P2121." Can you explain that to us.

20 A. Sure. So the "B" is the battalion chief 2118. And
21 that is the initial attack incident commander that is always
22 dispatched on a multiengine response. Prevention 2121. The
23 "P" -- he goes there purely to start investigations right
24 off the get-go. And we do that so that the origin doesn't
25 get disturbed by firefighters. Because we get there and the
26 firefighters put the fire out. If we wait too long to get a

1 prevention officer starting the investigation, sometimes the
2 origin can be disrupted and it's a little bit hard to
3 determine where the fire started.

4 The training officer -- that is "Train2107" -- he's
5 in his own pickup or in a department pickup. And he's
6 responding as an effort officer to help coordinate the
7 safety aspect of it. And anything with an "E" is fire
8 engine. Anything with a "TD" is a transport dozer. So
9 those are our bulldozers. And the BFC is Butte fire crews.
10 Those are hand crews. So that day we sent three hand crews.

11 Q. So what's a hand crew and how are they different
12 from a normal fire engine?

13 A. So hand crews show up and they've got -- they come
14 in a bus. You've probably see them in the red buses.
15 Specifically, those crews are 33C members, California
16 Conservation Corps members supervised by Cal Fire captains.

17 They show up from anywhere from 13 to 17 members
18 with hand tools. And that's where the hard work is. They
19 chop hand lines and they put fire out throwing dirt with
20 hand tools. They don't have water.

21 Q. When you talked about cutting a hand line, describe
22 that for us. What is a hand line?

23 A. There are a couple ways to put a wildland fire out
24 and that is to extinguish it with water or to remove the
25 fuels from the flames out front so it will burn into
26 something such as bare dirt and go out. That is their

1 assignment. Their assignment is to get their hand tools,
2 chainsaws and they start removing fuel along the line.

3 You know, they can be right up next to it or maybe
4 parallel to it. They remove the line. And the width of the
5 lines that they create with their shovels and rakes is
6 determined on the fire behavior.

7 So if it's really tall flame, the lengths of the
8 line has got to be big. If it's just a small grass fire two
9 feet and they cut some brush back, fire burns into it and it
10 goes out. And that is the theory behind the hand line.
11 Obviously, it's a little more complex than that, but that's
12 the basis of hand line construction.

13 Q. All right. So you said B2118 is the battalion
14 chief first assigned; correct?

15 A. Correct.

16 Q. So that would be -- B2118 would be
17 Captain McKenzie?

18 A. No. B2118 was Curtis Lowry who lives in the
19 Paradise area, engine 2161. Because of where our stations
20 are spaced, what ends up happening is the fire engine shows
21 up first. And that is what you want. No one wants a white
22 pickup to show up first. Fire engines shows up first. They
23 immediately will assume command. Someone has to be in
24 charge.

25 So at that point, it was Captain McKenzie. Once
26 the battalion chief gets there -- he's got to drive from

1 Paradise. He drives up into the area and gets there and
2 says "Now I'm here. I'm going to take command, and you can
3 get into firefighting."

4 Q. Okay. So Captain McKenzie is one of those first
5 engines 2176, but B2118 is Battalion Chief Lowry?

6 A. Yes, correct.

7 Q. All right. So Captain McKenzie in the engine goes,
8 Battalion Chief Lowry comes and, once Battalion Chief Lowry
9 arrives on scene, he takes over as incident commander?

10 A. Correct.

11 Q. All right. So, oh, and you said P2120 was a
12 prevention officer?

13 A. Yes.

14 Q. Is it someone from the Fire Prevention Bureau?

15 A. Correct.

16 Q. Do you know who 2110 is?

17 A. I think it's Tom Kluge. We've had some moving
18 around in our prevention bureau but --

19 Q. So it's 6:31. All of those resources are
20 dispatched up to the Pulga area; correct?

21 A. Correct.

22 Q. Next up 6:44 we have heard Captain McKenzie's radio
23 transmissions. We get more resources ordered up. What is
24 ordered up at that time?

25 A. So on his report on companies, you know, he gives a
26 clear picture of a fire with a fairly significant sustained

1 wind too. He makes an appropriate augmentation which means
2 we're going to need some help and asks for 15 additional
3 engines, bulldozers, some water tenders, and a few more hand
4 crews.

5 Now, what you see up there when it says "4STG,"
6 that is four strike teams of golf. And we will get into
7 that. But that is -- the strike team is composed of two
8 hand crews. So he asked basically for eight hand crews.
9 And we -- for response of a control issue we will group them
10 together and put one guy in charge of them. And we will
11 call them a strike team of hand crews.

12 Q. And what is the -- it says "They were all set up
13 NOPS."

14 A. Repeat that.

15 Q. N-O-P-S. What does that mean?

16 A. Oh, sorry. North ops. That is our geographical
17 coordination center for filling resources. It's in Redding.

18 Q. So this was a second request or the second dispatch
19 in less than 15 minutes from the initial dispatch. Is that
20 normal?

21 A. Yes and no. Under this situation, yes, it would be
22 normal to order that. On a normal wildland fire, you know,
23 "Oh, hey, that might be a little bit much this early. Let's
24 try to get around this fire before we start moving a bunch
25 of resources." In this case, it was obviously appropriate.

26 Does that kind of answer your question?

1 Q. Yep.

2 All right. So we have talked a little bit and
3 you've got through a little bit already.

4 The weather. As an incident commander, how
5 important is the weather to you?

6 A. Extremely important. Probably the number one
7 factor in wildland firefighting is the weather.

8 Q. As a firefighter do you keep daily tabs of the
9 weather?

10 A. Yeah. Weather briefings go out once a day on the
11 radio so everybody has good situational awareness especially
12 when there's red flag warnings. It's discussed daily,
13 reinforced. It's extremely important in wildland
14 firefighting.

15 Q. So what were the weather conditions at the time of
16 the initial dispatch of the Camp Fire?

17 A. I believe these conditions came off the Jarbo Gap
18 RAWS, which isn't -- it's reflective to the location. It's
19 not specifically the origin of the fire. But 42 degrees out
20 at 20 miles an hour and whipping up to 40 miles an hour
21 northeast gusts at 23 percent humidity.

22 Q. Why is humidity important?

23 A. It's basically the moisture content in the fall at
24 that specific time. So as you guys know, green grass
25 doesn't burn. Dead grass does. Relative humidity affects
26 the grass significantly. If you've got 80 percent,

1 90 percent, 100 percent humidity, that means there's rain
2 falling. When you have something below 20 percent, it's
3 extremely dry. You're putting Chapstick on. What that does
4 is accelerate fire spread and growth.

5 Q. You mentioned the RAWS station and the wind.
6 Briefly explain your understanding of what is the RAWS
7 system.

8 A. RAWS stands for remote automated weather system,
9 and it collects weather data from -- there's probably three
10 or 400 throughout the state of California. And it collects
11 weather data at an hourly, sometimes on a quarter of an hour
12 basis. And you're able to log in and look at these weather
13 factors that are being recorded. And it will record
14 multiple weather factors; temperature, relative humidity,
15 wind direction, wind speed, max speed. All kinds of stuff.

16 Q. Things that are important to you as incident
17 commander on a wildfire?

18 A. Absolutely.

19 Q. And you had access to that information once you
20 took over or even before you took over as incident commander
21 on November 8th?

22 A. Yes.

23 Q. In front of you you have what is marked as Exhibit
24 Number 106. It should be at the top of the stack. Do you
25 see that item?

26 A. I do.

1 Q. And displayed up on the board is Exhibit 106. Is
2 this the same?

3 A. Yes.

4 Q. Describe for us what we're looking at on 106.

5 A. So the top graph just shows the average wind chill
6 speed from November 3rd through November 10th. And it just
7 shows it through the day. So you can see it.

8 If the red line goes up, that's a higher wind
9 speed. If the red line goes down, it's a lower wind speed.
10 But the one below it is the max wind gusts.

11 So as a red line goes up, you have a higher gust,
12 recorded gust, peak gust. So it will take the highest gust
13 and plot it on that chart. And that is November 3rd through
14 the 10th.

15 Q. All right. Let's back up a little bit. We were
16 talking about the RAWS station and Jarbo Gap RAWS.
17 Exhibit 106 shows two graphs of information from the Jarbo
18 Gap RAWS station; correct?

19 A. Correct.

20 Q. And in this case the graphs are wind speed graphs?

21 A. Correct.

22 Q. The top graph deals with average wind speed per
23 hour?

24 A. Correct.

25 Q. And the bottom graph by maximum gusts per day?

26 A. Correct.

1 Q. And if I said per hour earlier on the topography,
2 it's actually per day; correct?

3 A. Correct.

4 Q. So is November 8th in here?

5 A. Repeat your question.

6 Q. Is November 8th displayed on the graphs?

7 A. November 8 is displayed on there.

8 Q. What was the top wind speed meaning wind chill --
9 the average wind speed on November 8th?

10 A. So if you look on the graph, it looks like 32 miles
11 per hour was the average wind speed at some point during
12 November 8th or the morning of November 8th because it's
13 collected on an hourly basis which just gives you a -- the
14 graph just gives you a rough idea of where the wind was.
15 There are daily charts that will show you by hour, and this
16 isn't one of them. This is by day.

17 Q. Okay. So we already went through the initial
18 resources that were dispatched.

19 This was a high-level wildland dispatch; correct?

20 A. Correct.

21 Q. And just briefly again, what were the resources?

22 A. You see a Cal Fire battalion chief prevention
23 officer, six Cal Fire engines, two volunteer engines which
24 we consider a bonus, a safety officer, two water tenders,
25 two Cal Fire dozers. And at the time because of the type of
26 fire this was no aircraft was dispatched.

1 Q. Now, I want to back up. When we're talking about
2 your experience with Cal Fire, you said at one time you were
3 an air ops commander?

4 A. Yeah. Air tech officer at Grass Valley and the
5 Chico air attack base.

6 Q. So you have a great deal of experience with air
7 attacks?

8 A. Correct.

9 Q. Why wasn't an air attack dispatched at 6:30 in the
10 morning?

11 A. Specifically at Chico we have to balance our
12 pilots' availability to fly. There's requirements. We
13 can't fly them for 12 hours. It's a safety issue. So our
14 pilots only fly seven hours a day. And the State of
15 California has determined the best time for those pilots to
16 be available is from about 10:00 until sundown in the summer
17 which typically the majority of the fires in California
18 start later in the day. It's hotter and dryer than in the
19 morning. Typically, not always.

20 So that's why we balance our pilot flight time to
21 start at 10:00. It will carry you all the way through the
22 6, 7, and 8 o'clock hour in the evening during the summer.
23 They have to have -- by our policy -- 14 hours of rest time.
24 So our start-up times are a little later in the day.

25 Specifically that day -- though when we do have red
26 flag conditions, the region will implement a staffing

1 pattern which allows us to staff aircraft earlier. Three of
2 our attack bases --out of six of our air attack bases in
3 Northern California, three of them were considered earlied
4 up which means they were at base at 08:00 ready to fly.

5 Q. So 08:00, which is 8:00 a.m., was considered early
6 for flying?

7 A. Yes, correct.

8 Q. At 6:30 they weren't even awake yet?

9 A. Weren't even awake. It has to do with pilot time.

10 Now, we did get -- incidents in the evening or at
11 night or early in the morning, we can call pilots back. And
12 that's what we do if we need the aircraft. It just takes a
13 while for them to come from home and stuff. We always have
14 that option to do that. And in this case that happened
15 initially.

16 Q. Does air attack operate at night?

17 A. No. We have no aircraft currently right now that
18 can do any type of night operations.

19 Q. So this incident begins at 6:30 in the morning.
20 The sun is just coming up; correct?

21 A. It's twilight. It would be -- it would be unsafe
22 to fly regardless if they are available due to light
23 conditions.

24 Q. Right. That would be about the time that the light
25 conditions would be fine to get up and fly anyway?

26 A. Correct.

1 Q. All right. Let's walk through some more of the
2 timeline here and the timeline of the fire as incident
3 command. So go ahead. You put together the timeline for
4 us.

5 A. I wasn't there at the incident yet, but at 6:45
6 orders were given to evacuate Pulga. And if you're not
7 familiar with Pulga, it's a small community of about 30
8 structures that sits in the Flea Valley drainage near the
9 incident. At 6:55 there was evaluation warnings that went
10 out first. And then quickly after they figured out what the
11 weather was doing it went straight to evacuation orders.
12 There was a report of a second fire off of Rim Road, and the
13 ECC relays this to the incident commander. And the incident
14 commander says "Hey, send two engines down Rim Road and
15 we'll see if there's another fire."

16 So two of the initial six fire engines get diverted
17 to Rim Road to assess whether or not there's a second fire.
18 At 7:20 that's when I leave my house and respond. I live in
19 Durham. So that gives me about 20 minutes to get to the
20 Concow area. And at 7:42 I show up at the incident command
21 post and at 7:46 I assumed command.

22 Q. So from 7:46 until the incident management team
23 arrived you were the man in charge?

24 A. Correct.

25 Q. You mentioned the fire cams earlier. And that is
26 one of the first things that you did when you heard about

1 the incident was start checking the fire cams.

2 A. Exactly. And that is the camera I pulled up on
3 Flea Mountain. And this is the image that I saw initially.
4 I didn't look at any of the other cameras because I just
5 assumed this was the fire that we were talking about not
6 understanding that there was two fires. And the fire that
7 started in Pulga would be to your left on a different
8 camera. You couldn't see it that early in the morning
9 anyway.

10 Q. All right. So what you're talking about is the
11 photograph that is in front of you that is displayed on the
12 board. That is Exhibit Number 58; correct?

13 A. Is that in here?

14 Q. Yeah, it's in there.

15 A. Sure, yes.

16 Q. It's Exhibit Number 58.

17 A. I don't have a 58.

18 Q. Somebody took it out.

19 A. Correct. Exhibit 58. I have it here.

20 Q. All right. Exhibit 58 we have displayed up here on
21 the board.

22 Now, you said a few minutes ago that you responded
23 from home?

24 A. Correct.

25 MR. NOEL: Oh, that's the ones where we had the
26 problem with numbering.

1 GRAND JURY SECRETARY: Yes.

2 MR. NOEL: Okay. That's why. It should be 57.

3 THE WITNESS: That's the photograph I saw earlier
4 in the morning.

5 BY MR. NOEL:

6 Q. And that is the same photograph that is displayed
7 on the board. It says number 58 on the PowerPoint.

8 Okay. How was it that you were able to access and
9 look at this photograph from home?

10 A. We have a fire watch system that the chief officers
11 have access to with a pass number and log in.

12 Q. So from a computer?

13 A. Yeah, from a computer. From my work computer I was
14 able to pull it up.

15 Q. Do they have a laptop or PC?

16 A. The laptop.

17 Q. Okay. So you have a state laptop that you can take
18 home with you?

19 A. Yes.

20 Q. So that when you get a call like this in the
21 morning, you can pull it up and check it?

22 A. Yep.

23 Q. So you were able to check the cameras before you
24 even headed out to the incident command?

25 A. Absolutely. And I was able to check the weather.
26 You know, it just creates a "favorite" and you're able to

1 pull up the Jarbo RAWs. And say the wind is really blowing.
2 Maybe this isn't -- maybe that is something significant.
3 And that is pretty standard protocol throughout any incident
4 in Butte County is we'll use those items and gather them to
5 try to assess the potential.

6 Q. Okay. Going back to what we talked about earlier,
7 the weather is very important as a firefighter or as an
8 incident commander?

9 A. Absolutely.

10 Q. So before you even went up there that morning, you
11 were able to check the fire cams, you were able to check the
12 Jarbo Gap RAWs and get the weather reports; is that correct?

13 A. Yes, correct.

14 Q. Anything else that you were checking on?

15 A. No. Just listening to the radio traffic also gives
16 you a clear idea of what is happening. Captain McKinzie is
17 a very experienced fire captain. He's been around a long
18 time. And we all -- all the chief officers have said if he
19 says it's got significant potential, it's got significant
20 potential and especially coming from him. He's worked in
21 that area a long time.

22 Q. Right. He's been in charge of Jarbo for quite a
23 while?

24 A. Yes.

25 Q. And when he gets to a fire and says "We've got a
26 problem," that is something that is taken seriously?

1 A. Yes.

2 Q. So that is why within 13 minutes of initial
3 dispatch they were already scrambling up -- what was
4 it? -- fifteen more engines and multiple dozers and hand
5 crews?

6 A. Yes, correct.

7 Q. All right. So you see this image Exhibit
8 Number 57. And do you know what you're looking at at this
9 point?

10 A. Yeah. I just assume it's the fire we're responding
11 to.

12 Q. Did you realize where this fire that's shown again
13 was?

14 A. Yeah. You could see -- I could tell it was in the
15 Flea Mountain area. And I can see Concow Lake in the
16 background. So it made sense where he was. Because I was
17 just told there was a fire in Concow and I wasn't
18 specifically told initially where it started at. And I'm
19 assuming that's it.

20 Q. Where was the incident command initially?

21 A. The initially established ICP was at the hardware
22 store in Concow.

23 Q. So when you responded from your home, that is where
24 you responded?

25 A. Correct.

26 Q. So let's get back to our timeline. And walk us

1 through the timeline.

2 A. At 7:31 we hear radio traffic that is the first
3 reports of fire on Meadow Springs Road. And until you're
4 able to pull a map out and reference where that is, other
5 than the fact that there's fire in somebody's backyard, it
6 doesn't really mean a lot until you're able to reference
7 where the fire started and where the fire is currently, if
8 that makes sense. And at the time I'm still driving to the
9 ICP and Curtis Lowry at the time is taking in this
10 information.

11 Q. So we're looking at the slide that is marked as
12 Exhibit Number 107. And you should have the original in
13 front of you?

14 A. Yep, correct.

15 Q. And that's a slide that you put together?

16 A. Yep.

17 Q. Describe for us what we're looking at.

18 A. It just showed a general location over by Pulga
19 where the fire started in that general location. And the
20 intent of this slide and the presentation we're doing is to
21 show how fast the fire was moving and impacting communities.

22 And we had drove spikes in. On Goggle Earth you
23 type in the address where the metal spikes are that are
24 recorded and that's where the location came up. And we just
25 drew a snap line to it.

26 Q. All right. And there's one kind of contradiction

1 in here. In the white box on the top left it says "Fire
2 spread 4.3 miles." But on the legend to the right it says
3 "Fire spread 4.2 miles."

4 A. It may have been just a staging area. I think the
5 legend on the left of 4.2 is actually what Goggle Earth will
6 pop out. I think I had the fire spread 4.3. That was a
7 good catch. I didn't even notice that. But I would have to
8 say 4.2 is probably the correct line distance right there.

9 Q. So this Meadow Spring Road point, that was the
10 first report that you got of fire in the Concow residential
11 area?

12 A. Correct.

13 Q. Let's talk a little bit about rate of spread of the
14 fire. What does it mean rate of spread to you as incident
15 commander?

16 A. Rate of spread is how fast the fire is moving at
17 the head of the fire, the front of the fire. We don't take
18 into consideration the flames. And we gage it feet per
19 minute. Even during the day we'll announce the typical
20 weather or fire behavior factors over the radio. That will
21 give you an idea of if a fire starts, how fast a fire
22 travels.

23 Obviously, we hadn't done that yet. But prior to
24 that, we'll do a spread component. So we'll say a spread
25 component to 156 which means the fire potentially is going
26 to spread 156 feet per minute which is fairly rapid. In

1 general terms speaking a low, medium, and rapid or dangerous
2 to critical rate of spread, those are the four
3 characteristics that we use to describe them. And anything
4 more than three miles an hour is considered a dangerous or
5 critical rate of spread specifically on this incident.

6 So if we said the fire started at 6:31 and at 7:31
7 we already are 4.2 miles ahead of it, we know that three
8 miles an hour is considered critical. You can say it's
9 spread 4.2 miles an hour which is well above critical rate
10 of spread.

11 Q. Now, we know 6:31 was the initial dispatch time.
12 So let's assume that the fire probably started sometime
13 before the initial dispatch. So it wouldn't quite be
14 4.2 miles per one hour. But does that mean it's any less
15 critical?

16 A. No. And I will briefly talk on rate of spread
17 specifically on this one. This fire wouldn't have initially
18 started. It took a little bit of time to align with that.
19 See on the map up there where it says "Pulga," that sits in
20 the Flea Valley drainage. Once the fire gets in the mouth
21 of that drainage, that's when you start to see extreme and
22 rapid fire growth. It gets in the mouth of that drainage.

23 And that is just my interpretation of what I've
24 done. There is no specific data that says "At this time."
25 But 7:02 is when we feel it actually gets into the mouth of
26 that drainage. That is when the rapid growth starts at

1 7:02.

2 Q. And you said that this reached a critical rate of
3 spread?

4 A. Correct, critical. It goes from dangerous to
5 critical.

6 Q. All right. Next up you have Exhibit Number 108.
7 It's another map satellite photograph that you prepared for
8 us. Do you have that 108 in front of you?

9 A. Yes.

10 Q. And you are familiar with 108?

11 A. I am.

12 Q. And it's the same as what is displayed on the big
13 board up here?

14 A. It is.

15 Q. Explain to us what we're looking at on 108.

16 A. So the intent of this slide was the first reports
17 of fire on the west side of the -- or the west side of the
18 west branch in the town of Paradise was at the end of Drayer
19 Lane and shortly after that Merrill, Shay Lane, which you
20 can't really see on this. But those are roads right there
21 (indicating). And the intent on this was to show you the
22 drainage area. Just left to the red arrow that is called
23 Griffith Gulch.

24 This day the wind was channeled through that
25 drainage causing -- it was grabbing every hot ember you
26 could imagine that was airborne and channeling it through

1 that drainage. So that's what has been referred to ground
2 zero for the Town of Paradise as far as when the fire enters
3 the town of Paradise.

4 Q. So this right here (indicating), this is Griffith
5 Gulch?

6 A. That is Griffith Gulch.

7 Q. And you said that acted as a drainage for the
8 winds?

9 A. Yes. Similar to how the Feather River Canyon does
10 it. It takes the wind out of the Feather River Canyon and
11 it chokes it down and speeds through that little gulch right
12 there.

13 Q. And back here in the background we have Concow and
14 Concow Lake?

15 A. Correct.

16 Q. So the fire is coming from this (indicating)
17 direction coming from up above?

18 A. Yes.

19 Q. And basically is riding these winds into the --
20 through the gulch which opens up and takes it across into
21 the town of Paradise?

22 A. Yes.

23 Q. All right. You said that the first reportings of
24 the fire were on Drayer Drive?

25 A. Correct.

26 Q. We have Exhibit Number 109, another Google Earth

1 map. You see 109?

2 A. Yes.

3 Q. Do you recognize 109?

4 A. Pardon me?

5 Q. Do you recognize 109?

6 A. I do.

7 Q. And what does 109 indicate?

8 A. It shows Drayer Lane. And that was our first
9 report through ECC that there was fire on the Paradise side
10 of the west branch.

11 Q. And what time is that?

12 A. 7:44.

13 Q. That is right before you took command; correct?

14 A. That is what triggered me to take command.

15 Q. Right. You arrived at 7:42 and you took command at
16 7:46?

17 A. When we got reports of that, we knew we had
18 something that we had been planning for years and expecting.
19 It was obvious that that report right there took the
20 incident to a new level of complexity.

21 Q. Next we have a map marked as 110. Do you have 110
22 in front of you?

23 A. I don't, but I am very familiar with it.

24 Q. Okay. Yeah, I know. There's 110. You're familiar
25 with 110?

26 A. Yes.

1 Q. This is another slide you prepared?

2 A. Yes.

3 Q. And 110 is the same photograph that we're looking
4 at on the big board?

5 A. Correct.

6 Q. Describe to us what we're looking at here.

7 A. This here shows that the distance of 4.2 miles from
8 an estimated origin to the first reports of fire in Concow
9 and then from that to the first reports off of Drayer Lane
10 just gives us an estimated distance of travel of the fire.

11 Q. So the distance from Meadow Springs to Drayer Drive
12 is 3.2 miles?

13 A. 3.2 miles.

14 Q. And so that's at 7:44?

15 A. Correct.

16 Q. Thirteen minutes after the first reports of fire in
17 the community of Concow?

18 A. Correct.

19 Q. So now we have this fire has moved around seven
20 miles in an hour and 13 minutes; correct?

21 A. Correct.

22 Q. We talked about three miles an hour being a
23 critical rate of speed?

24 A. Yes, correct.

25 Q. I'm not a mathematician but seven miles in an hour
26 and 14 minutes or 13 minutes would be pretty close to six

1 miles an hour?

2 A. Yeah. It was unprecedented. That was the issue.
3 When we started getting reports, it was hard to comprehend
4 at the ICP exactly how fast it was spreading. And remember
5 too 9-1-1 phone calls are coming in by the hundreds. And
6 that's normal for a wildland fire anywhere in California.
7 We will get calls from Vina saying that the fire is in their
8 backyard, and we have to verify that.

9 So we will get false information. But people don't
10 understand. Yes, obviously a lot of people were calling
11 from Paradise saying "There's fire in the backyard," but we
12 were also getting calls from outside the area saying they're
13 seeing ash dropping in the Chico area and fire is in my
14 backyard in Chico. So it's really important that we verify
15 exactly where that fire is.

16 So at the ICP initially there we're thinking maybe.
17 Is it true? Is it not true? That is what's going through
18 your mind. We treat it as true. We have to but still
19 comprehend that the rapid rate of spread you're still kind
20 of thinking "We're going to send a fire engine, but there's
21 just no way it's there."

22 Q. And that's the next question I was going to ask is
23 a lot of this now you're seeing, you know, in hindsight;
24 correct?

25 A. Correct.

26 Q. And that's a lot different than what you knew and

1 what you were seeing on the morning of the 8th; correct?

2 A. Yes, correct.

3 Q. So you're in the command post. You're not thinking
4 "But that fire just traveled seven miles." What are you
5 thinking?

6 A. I'm trying to grasp the magnitude because it's
7 7:44. At 8 o'clock we were already getting reports of
8 fatalities and burn-offs in Concow. And when we start to
9 have that stuff happen on an incident, obviously the
10 complexity goes way up because now our number one priority
11 is life safety. And now we are converging on Concow. Heads
12 are down. Our employees on the 8 o'clock hour are not only
13 taking care of their own safety but they're rescuing
14 hundreds of civilians in Concow. So we're focused on the
15 civilian rescue portion of it.

16 And when these reports of rapid spread, of "Hey,
17 we've got fire in our backyard," you have to stop and think
18 "Holy cow, now we have a major issue seven miles away from
19 where we're at right now." And it makes things extremely
20 complex. There is only so many resources to go around. So
21 many firefighters and first responders and law enforcement
22 are sent to specific locations.

23 I don't know the population of Concow, but I think
24 it's 5 to 6 to 700. That takes a lot of resources to assess
25 all of those. Our initial response went into Concow.

26 It's typical for fire to travel eight miles an

1 hours. So the assumption is we're going to put all
2 resources in Concow. Maybe we'll pick the fire up and
3 rescue everybody and we'll start planning for Paradise. It
4 was outpacing any thoughts that we had, plans that we had
5 determined that we were implementing at the ICP.

6 Q. I want to talk a little bit about rate of spread.
7 Because for most of us when you talk about fire spreading,
8 you see the typical disaster movie. You know, this huge
9 wall of flames, you know, 50 feet high and a mile wide and
10 is sweeping down and taking out everything.

11 What is it like in reality?

12 A. Other than a grass fire, which what you see on TV
13 is you have solid flames in the front. And a grass fire
14 burns fast in conditions like that. The rate of spread is
15 dictated by spot fires. You won't have necessarily a
16 massive wall of fire. You do, but out in front of it you
17 have multiple spot fires. And those turn into major fires,
18 and they push together. And they keep doing that.

19 I always described it as the main fire eats the
20 spot fire up and it feeds itself. It throws a spot fire
21 out. That fire becomes a major incident. It catches up.
22 That spot fire throws another spot fire or ember that
23 creates a spot fire. And that is how the rapid rate of
24 spread is determined.

25 You will have large green pockets in between major
26 fires. So theoretically this day it would be similar to

1 having six, eight, ten major incidents. It's major fires at
2 any one time burning together if that makes sense.

3 Q. Define for us what is a spot fire.

4 A. So spot fires are created by the main fire.
5 Generally, it's enough heat where it takes material, puts up
6 a smoke column. And if the wind is blowing hard enough, it
7 will grab that smoke column and blow it a certain direction
8 depending on relative humidity, temperature, how hot the
9 fire is, how high it can get up into the air, and how long
10 that ember burns, and when it lands on the ground, whether
11 or not it starts another fire, if that makes sense. And
12 that is what happened that day. Because of the weather and
13 the wind it was able to make it a lot further than what
14 would be normal conditions.

15 Q. So when we're talking about this fire, the rate of
16 spread, we're talking about not just some fire front that is
17 coming out of Pulga, we're talking about all of the embers
18 that are being thrown out in front of the fire, the main
19 fire and igniting more and more fires?

20 A. Correct.

21 Q. And so we're starting to see that the fire is now
22 getting over into Paradise?

23 A. Yes.

24 Q. So by 7:44 we've got embers that are now being
25 thrown several miles from -- or now are starting additional
26 fires several miles from where this fire started in Pulga?

1 A. Correct. And I'll tell you in all of history of
2 Butte County no fire has ever crossed the west branch.
3 There has been a lot of fires take a shot at it, but because
4 of the geographical features it hasn't allowed it.

5 Even when -- if you're familiar with the 2008 Butte
6 Lighting Complex Fire, the fire ran down really hard through
7 Concow and it stopped at the west branch. And because of
8 past history we have to -- we use that as a planning
9 mechanism. And some comments we made is "The west branch is
10 going to help us."

11 So when we first initially got a spot fire across
12 the west branch, no big deal. We're going to send a fire
13 engine there. We get spot fires all the time. Put it out.
14 The main fire, we're assuming, is going to stay on the west
15 side -- or the east side of the west branch.

16 Q. You talked earlier about hand crews and cutting
17 fire lines and dozers cutting fire lines. Technically, the
18 west branch is basically considered a huge fire line;
19 correct?

20 A. And a fire break, correct. It's got water in the
21 bottom of it. We use geography for fire control line;
22 roads, rivers, and ridges. That's your basic fire tactics
23 class right there. We use ridges because they're easy to
24 hold fire and we use roads and we use rivers; the three
25 "R"s. So that would be considered a control line on any day
26 that we're fighting fire in that area.

1 Q. Right. In general, fire doesn't like to go
2 downhill; correct?

3 A. Correct.

4 Q. And it goes downhill much slower than it goes
5 uphill?

6 A. Yes.

7 Q. So the west branch was considered part of your fire
8 defense?

9 A. Absolutely. And a lot of times with north wind
10 conditions the wind changes from northeasterly to -- it gets
11 in that canyon because the canyon runs north and south and
12 the wind starts blowing through Paradise. And it kind of
13 catches and heads to the south a little bit which kind of
14 skirts the fire. And that's how come it -- not only is
15 there water in the bottom of it and it slows down when it
16 gets there, the wind changes a little bit and directs it
17 down canyon.

18 Q. We can actually see that on this map here. We've
19 got a series of canyons running from the northeast to the
20 southwest out of the Flea Mountain area into Paradise;
21 correct?

22 A. Correct.

23 Q. And those canyons tend to funnel the wind. And
24 much like we've already talked about on multiple occasions,
25 the Feather River drainage winds, the Flea Mountain drainage
26 winds, those are funneling the wind right into Paradise?

1 A. Correct. I think something that is important too
2 is there is no way really to gauge it unless you have a
3 weather balloon up.

4 What was phenomenal about that day was that the
5 winds at higher elevations were significantly more than
6 what we were registering on the ground or at Jarbo Gap. And
7 how we know that is how the smoke column sheared off. It
8 never had vertical growth to it. And it should have because
9 of the heat it was generating which means one thing. The
10 winds are blowing really hard at the higher elevation. It
11 was backed up by our first air tanker that showed up. And I
12 think this is important. That's why we had rapid growths
13 and such is spot fires.

14 I don't know if any of you are pilots. But when
15 they come in for a drop, they put their flaps down and
16 they're pulling back on the accelerator. It's almost like
17 they want to land. It brings them slow and low. They drop
18 and then they put the metal to the pedal and they take off.
19 So when he puts his flaps down and throttles back to idle,
20 he should be falling like a rock to get down to the road.
21 In this case, he was falling a thousand feet per minute
22 elevation because of the amount of wind coming over the
23 wings. So he was -- he said, "No, I can't. I've never seen
24 anything like this." He abandons and goes back to Chico.

25 And there's two types of air speed and ground
26 speed. Air speed is how fast the air is going over your

1 wings. The ground speed is how fast you're actually
2 traveling across the ground. He was going 150 miles an hour
3 back to the base and he was indicating 280 miles across the
4 wing. So that's a 130 mile-an-hour headwind at 3,500 feet
5 above the ground, which is not unheard of but for that day
6 that definitely didn't help us.

7 Q. So when you're going back and defining terms when
8 you're talking about air tankers, you're talking about the
9 planes that are equipped to drop fire retardant?

10 A. Correct.

11 Q. And these are big planes?

12 A. Very experienced pilots. They're turboprop-driven,
13 lots of power made to fly in rough terrain, weather
14 conditions, yes.

15 Q. So you said that the air attack was sped up because
16 of the conditions at about 8:00 a.m.?

17 A. So the air tanker was -- the air attack wouldn't
18 come on until normal because we had three other attack --
19 air attacks staffed at Grass Valley, Sonoma, and Redding
20 that day.

21 Q. Okay. So what time did the first tanker get up to
22 fly and engage the fight in the Camp Fire?

23 A. It's going to be real close. I think he launched
24 from Chico at 7:45.

25 Q. And you said that that tanker got up there and
26 radioed that it just was not safe to fly in?

1 A. Not safe. And shortly after that the air attack --
2 because we called him back and took off after him. The
3 attack -- because he can fly at a higher-up altitude, it's
4 safer to be in rougher conditions. Because if something
5 happens, you have thousand of feet to correct and right
6 yourself.

7 When you're down low level and you're in those
8 rough conditions, it's just dangerous not to mention that
9 the retardant is extremely ineffective. As soon as it comes
10 out the bottom of the aircraft, it blows six miles to the
11 left because of the wind and it's just useless. So it's not
12 worth the risk to utilize them at that point.

13 Q. What is the difference between air attack and a
14 tanker?

15 A. An air attack flies above everyone and he
16 coordinates the air operation making sure that no one flies
17 into each other between the helicopters and the air tankers.
18 He's their aircraft traffic controller. And he also gives
19 operational intelligence to the incident commander on where
20 the fire is, how things are progressing.

21 Q. So the air attack -- that is the little tanker
22 plane that we see circling up above everything else?

23 A. Correct.

24 Q. I want to go back to one other thing. You talked
25 about the plume or actually the lack of a fire, a smoke
26 plume in this case and the significance.

1 A. I know we have all seen it in Butte County. We've
2 had some fires over the Plumas National Forest to the east
3 or even to the west and you see a big column goes up and it
4 looks like thunder; right? I think everybody has seen that.
5 We have a really active fire but probably very little wind.

6 In this case, when you have a fire like this and
7 that column can't get any vertical growth, it's -- there's
8 two reasons why that happens. It's not generating enough
9 heat which means it's non-burning fire or it's ripping and
10 the wind is pushing the column over and driving the fire
11 into a direction. So the fact that there was no smoke
12 column or smoke plume in this case indicates high winds.

13 Q. Okay. All right. You said at 7:44 when you
14 started getting reports of fire in Paradise, you took over
15 as incident commander at 7:46. And I think your exact term
16 for us was that took this to a whole other level. So
17 explain that to us.

18 A. Correct. Evacuation is number one priority. I say
19 in any emergency progress is life safety. So I think just
20 prior to this we had put the Pentz Road corridor into
21 evacuations five minutes before this. Once we had fire on
22 the Paradise side, we had to implement evacuations. And
23 there's something about evacuations. We don't take them
24 lightly.

25 How it works is in a wildland fire, the fire
26 department will recommend areas to evacuate. We base that

1 on fire behavior and potential. We give that to the law
2 enforcement having jurisdiction whether it's the Town of
3 Paradise or Butte County Sheriff's Department. They
4 implement the evacuations. They send out the warnings.

5 What we'd discussed at the ICP base once we had
6 fire in the town of Paradise is we are still going to try to
7 put it out. But if we have no choice to evacuate -- and we
8 don't take evacuations lightly. It can be pretty difficult.
9 And I know we're getting good in Butte County of
10 evacuations.

11 What you don't want to do is cry wolf. We can't
12 evacuate large masses just because it's a huge economic
13 issue with, you know, businesses evacuating for days and
14 days. When a fire doesn't threaten a community, it only
15 happens a few times before the communities are upset that
16 they keep getting evacuated. Nothing really ever happens.
17 And what it does is it desensitizes the community on when it
18 really needs to happen and to get them going. We take it
19 very seriously on evacuations and make sure it's appropriate
20 and that we're not crying wolf. In this case, we weren't.
21 We weren't crying wolf.

22 Q. All right. So you said a few times before that
23 plans were already made; that it was an expectation that at
24 some point a fire like this was going to happen in Paradise;
25 correct?

26 A. Correct.

1 Q. And we talked about using the west branch as a fire
2 line. Do those plans include evacuation plans for the town
3 of Paradise.

4 A. Yes, correct.

5 Q. And we have on the big board -- and you should have
6 it in front of you -- Exhibit Number 111. Do you see
7 Exhibit 111?

8 A. Yes.

9 Q. And is that Exhibit 111 that you're looking at, is
10 that the same that is up on the board?

11 A. Yes.

12 Q. This is the Paradise evacuation plan; correct?

13 A. Correct.

14 Q. Can you explain that to us briefly before we move
15 on.

16 A. So the plan is based off the zones. And every
17 resident that's living in that zone gets mailed out a flyer.
18 "You're in this zone," and some directions if you're to
19 evacuate, what you should do.

20 The zones are -- the zone theory allows fire
21 commanders and law enforcement to practically pick areas so
22 we don't have to evacuate the entire town in certain
23 instances.

24 So, for example, look at zone three. Maybe we have
25 a fire in Magalia and we only want to evacuate a little
26 portion of Paradise precautionary. Prior to zones, we would

1 say -- well, you try to get some roads and you try to draw
2 it on a map. This right here makes things easy, quick.
3 Evacuate zones 12 and 3. Law enforcement has the plan.
4 They've got their mechanism to message that out. It's a
5 very efficient and appropriate way to establish areas you
6 want to evacuate.

7 Q. So at this point can you explain to us a little bit
8 about the personnel that are involved in the incident
9 command.

10 A. So at that time the incident command post -- ICP
11 for short -- is the location where the incident commander
12 and anybody who's -- any stakeholder having participation in
13 the incident is. It's a known practice where we rally
14 around the incident command post.

15 So law enforcement will show up whether it's Butte
16 County Sheriffs, Paradise PD, Chico PD, depending on where
17 the incident is Public Works, PG&E. Anybody that has input
18 into the operation that day attempts to rally around the
19 command post which allows face-to-face communication. It
20 eliminates phone calls, radio traffic.

21 "Please call Public Works." So someone has to call
22 Public Works to tell them to put up road block signs here.
23 I can talk to the Public Works guy or law enforcement
24 directly and say "We need to shut this down. We need to
25 evacuate this" so we don't have information fall off the
26 plate.

1 Q. So prior to 7:44 when we got the first report of
2 the fire on the west side of the west branch at that Drayer
3 Drive address, you said that an evacuation warning had gone
4 out for the Pentz Road area of Paradise?

5 A. Correct.

6 Q. So that would be evacuation zones 3, 8, 14, and the
7 lower Pentz zone; correct?

8 A. I think the initial incident commander Curtis
9 Lowry -- I think what he voiced out on the radio just put
10 the Pentz Road corridor in evacuation warning which would be
11 3, 8, 14, and the lower Pentz.

12 Q. So at 7:46 you assumed command?

13 A. Correct.

14 Q. And what is the first thing you do?

15 A. Evaluate 2, 8, 14, and lower Pentz based off of the
16 fact that we had fire at 7:44 on Drayer Lane.

17 Q. Okay. So you put out the evacuation order. You
18 said two. Should that have been three?

19 A. Oh, I'm sorry. Yes. It was 3, 8, 14, and lower
20 Pentz.

21 Q. So basically the entire Pentz Road corridor?

22 A. Correct.

23 Q. You immediately at 7:46 ordered the evacuation of
24 all of eastern Paradise?

25 A. Correct.

26 Q. What happened next?

1 A. So the evacuation plan was based off of phasing it
2 in and not having the town all at once to allow roads to
3 clear up so we don't have a backlog. And that was the
4 theory.

5 And I talked to my law enforcement partner at ICP
6 and said "Don't let me forget we'll evacuate in about
7 45 minutes. We'll take some more zones to get them out and
8 we'll let the system flush out."

9 At 8 o'clock our air attack finally gets overhead
10 and makes a call and says "Hey, there's fire all over in
11 Paradise." After that report we basically evacuated
12 multiple zones in another round of evacuations 15 minutes
13 later which includes 2, 7, 13, and Morgan Ridge. And you
14 see we're only evacuating portions closest to the fire
15 trying to give time for the system to flush out.

16 Q. And at 8:02 mandatory evacuations for all of
17 Paradise?

18 A. So typically how it works is evacuation orders come
19 from the first commander down to law enforcement. Because
20 at this point things are starting to become fairly chaotic
21 in the command center with the amount of 9-1-1 calls. We
22 have a law enforcement partner. And I turned to him
23 verbally and said "Evacuate these zones." I also do it over
24 the radio because it gives situational awareness to
25 everybody that's on our frequency. A lot of people scan
26 that we're evacuating portions of Paradise.

1 When I radioed in, I tell them "Make sure you call
2 the Town of Paradise and tell them we are evacuating these
3 zones." The dispatcher gets off the radio and picks up the
4 phone to the PD, gets a little confused, and says "Evacuate
5 the entire town."

6 That is not standard, but on that day that
7 nonstandard direction she gave the Paradise PD helped us
8 because we weren't getting the intelligence of where the
9 fire was. The ECC was -- they were getting 9-1-1 calls and
10 people were saying "There's fire in my backyard." They were
11 so overwhelmed they were not able to relay that to the
12 incident command post. So there may have been a fire on
13 Billi Road and we wouldn't have known until someone told us.
14 We just -- we don't know.

15 They were getting overwhelmed. They were having a
16 difficult time getting some of that information back out to
17 us. They couldn't get off the phones. The phones kept
18 ringing. You have to answer the phones because there's
19 still emergencies going on in Oroville, Gridley, Chico.
20 Mom's sick, heart attacks that are outside of that incident.
21 They have to pick up the phone. They can't not answer it
22 because there could be a heart attack going on in Berry
23 Creek and we need to send a response to it.

24 So she gets confused and says "Evacuate the entire
25 town." So at 8:02 the entire town of Paradise was asked to
26 evacuate.

1 MR. NOEL: Madam Foreperson, is this a good time to
2 take a break?

3 GRAND JURY FOREPERSON: Okay. Fifteen minutes?

4 MR. NOEL: Yes, Ma'am.

5 GRAND JURY FOREPERSON: Do you want him admonished
6 before?

7 MR. NOEL: Pardon?

8 GRAND JURY FOREPERSON: Do you want the
9 admonishment before?

10 MR. NOEL: Sure. It's always better to be safe
11 than sorry.

12 GRAND JURY FOREPERSON: Okay. Mr. Messina, you are
13 admonished not to discuss or disclose at any time outside of
14 this jury room the questions that have been asked of you or
15 your answers until authorized by the grand jury or the
16 court. A violation of these instructions on your part may
17 be the basis for a charge against you of contempt of court.

18 This does not preclude you from discussing your
19 legal rights with your own attorney.

20 Mr. Messina, what I have just said is a warning not
21 to discuss this case with anyone except the court, your
22 lawyer, or the district attorney.

23 Do you understand?

24 THE WITNESS: I do.

25 GRAND JURY FOREPERSON: Thank you. All right.

26 [Recess taken from

1 10:06 until 10:24 a.m.]

2
3 [DISCUSSION OMITTED.]

4
5 BY MR. NOEL:

6 Q. All right. So we left off with the evacuation of
7 Paradise. You have gotten one call that we've got fire on
8 Drayer Drive in Paradise.

9 Now, we are looking at Exhibit Number 112. You
10 should have Exhibit 112 in front of you.

11 A. Yep, I do.

12 Q. What is Exhibit 112?

13 A. That is Merrill Lane and Drayer Drive.

14 Q. What is the significance of Merrill Lane?

15 A. That was probably our first confirmed
16 we-know-by-our-employees of fire being in the town of
17 Paradise off of Merrill Lane.

18 Q. What time did that occur?

19 A. Right around 8:15, 8:16ish. One of our battalion
20 chiefs who we were going to assign to the incident command
21 was driving from Oroville up Pentz Road. He comes up to
22 Merrill Lane and Pentz and sees a fairly significant spot
23 fire already burning homes down. He thinks it's an entirely
24 different fire because --

25 And this gentleman -- he's also a 30-year veteran
26 with lots of experience, been around the state fighting

1 fires. He's still thinking there is no way this is from the
2 fire in Pulga. It's got to be a whole new fire. So he
3 calls the command center on a different frequency and says
4 "I'll take my own wildland response," which is six engines,
5 two dozers, "and augment with another team because there's a
6 fire in Paradise." He doesn't quite understand what's going
7 on on the other side of the west branch on the east side.

8 Q. Do you recall which battalion chief that was?

9 A. Battalion Chief Bill Lopez.

10 Q. Lopez?

11 A. L-o-p-e-z.

12 Q. And so Battalion Chief Lopez calls in and reports
13 to your command center that he's actually viewing a fire on
14 Merrill?

15 A. Correct.

16 Q. So at 8:16 now we have fire in another location in
17 Paradise?

18 A. That's correct.

19 Q. On the eastern side of Pentz on the western side of
20 the west branch?

21 A. Yes.

22 Q. I will move on to 113. Do you have Exhibit 113 in
23 front of you?

24 A. Yes.

25 Q. And you're familiar with that exhibit?

26 A. I am.

1 Q. And we have that exhibit displayed on the big board
2 in the PowerPoint presentation?

3 A. Yes.

4 Q. All right. And describe Exhibit 113 for us.

5 A. This one just shows the locations where fire first
6 got onto the west side and the time that it started to
7 impact the Feather River Hospital. And I think what is
8 important here is you can see Griffith Gulch and you can see
9 how it kind of lines up where if you look at it as the water
10 flows, why we had fire specifically right there. Because of
11 that gulch.

12 Q. So we're talking about this (indicating) right
13 here?

14 A. Correct.

15 Q. And I'm indicating basically the valley or gulch
16 that is running from the top right of the picture down
17 through the -- to the left down to the central?

18 A. That's correct.

19 Q. So what time do we initially have fire at Feather
20 River Hospital?

21 A. 8:25 is the reports of fire at least behind it or
22 just below in the canyon.

23 Q. And Feather River Hospital now is denoted by a
24 yellow pin?

25 A. Yes.

26 Q. So now we know you have fire reported at Drayer

1 Drive, which is the yellow pin at the top, Merrill Road,
2 which is the yellow pin in the middle, and Feather River
3 Hospital which is the yellow pin at the bottom by 8:25?

4 A. Correct.

5 Q. So three distinct and separate locations on the
6 east side of Pentz Road in Paradise?

7 A. At some point during this timeframe -- Shay Lane --
8 we also get reports of fire off of Shay Lane, which probably
9 is right in the middle of your two pin drops of Merrill and
10 Feather River Hospital is Shay Lane.

11 Q. So what actions did you take once you have fire
12 reported in the area of Feather River Hospital?

13 A. So evacuations start to be prioritized on who gets
14 help. And we focus on at-risk civilians, which are the
15 elderly, care homes, hospitals, schools. And in this case,
16 just so you know, when you go to evaluate a hospital, it's a
17 second event where -- when you talk about complexity, this
18 adds significant complexity of evaluating a hospital. And
19 I'm sure you guys can understand why.

20 Luckily, Feather River Hospital does not have a
21 large amount of beds and still doesn't. It doesn't make it
22 any easier on you when you're trying to evacuate a hospital.
23 At that point though the fire has surrounded the hospital,
24 and we're trying to complete evacuations while the area
25 around it is burning. It makes it a little bit difficult.

26 Q. So what time was Feather River -- the fire at

1 Feather River Hospital initially reported?

2 A. Right at 8:25. At 8:31 we decided they needed help
3 evacuating -- expediting evacuations, and we were going to
4 allow whatever helicopter could land on the helipad to pick
5 up the critical patients and transport them by air to
6 expedite the evacuations.

7 We knew that the roads at that point on Pentz Road
8 were starting to become congested and anything by ground was
9 going to take a long time to get them out of Paradise. So
10 the critical patients we were using helicopters to transport
11 them.

12 Q. And what time did you get confirmation of fire at
13 Feather River Hospital?

14 A. Right at 8:40. One of their outbuildings -- I'm
15 not sure exactly what it was -- had caught on fire.

16 Q. And how do you respond once you actually had
17 confirmation of fire at Feather River Hospital?

18 A. Two events happened. At that point there was a few
19 fire engines assisting with evacuations. They were able to
20 suppress that. Later in the day additional buildings in the
21 complex caught on fire.

22 And when we're determining -- there's a lot of
23 priority when you're prioritizing structural defense. When
24 we're going to protect an individual's home or a critical
25 infrastructure, the infrastructure comes first. And the
26 hospital is considered a critical infrastructure. So later

1 that day when other buildings and the complexes became
2 involved with fire, we sent what we had available into that
3 area to suppress that.

4 Q. All right. Let's talk more about evacuations and
5 the timeline of evacuations. And what was the next
6 evacuation order?

7 A. So at 8:49 not knowing that the emergency command
8 center had already told the town of Paradise to evacuate the
9 whole town, the air attack around 8:45 called and said the
10 fire is halfway through Paradise. Halfway. Basically the
11 fire has destroyed half of Paradise already.

12 Smoke was laying over so he didn't really have real
13 accurate information on how far the fire had progressed into
14 the town of Paradise. But from his vantage point he felt
15 half the town of Paradise had already been destroyed which
16 was not really good news because that was the first time we
17 had heard how far the fire had advanced through the town.
18 And that's what triggered the rest of the evacuations.
19 Those zones capture pretty much the entire town. At 8:49
20 that was given to the law enforcement through our emergency
21 command center to make those notifications. Luckily, our
22 command center had already passed on that at 8:02. So that
23 was basically a mute point.

24 Q. But that is when you had made the decision that
25 those areas needed to be evacuated too?

26 A. Correct.

1 Q. All right. Moving on to Exhibit 114, are you
2 familiar with this exhibit?

3 A. Yes.

4 Q. It's the same exhibit that we have up here on the
5 board?

6 A. Correct.

7 Q. And we have seen it previous and we're going to see
8 it here in a minute. What does this exhibit show?

9 A. So I had acquired a photo from an ex-employee who
10 is standing at Lookout Point. And if you guys look on that
11 map right there, down at the very bottom along the whole
12 area, that is Skyway, Tomin Road. The real sharp turn down
13 at the bottom is Lookout Point.

14 He's standing at Lookout Point back up towards
15 Paradise. And at 8:15 he snaps a photo of a fire in the
16 Honey Run Canyon area. He just snaps a photograph of it. I
17 mean, he happens to give it to me.

18 At 9:14 an engine from Chico city is responding to
19 assist us. And they report a well established spot fire in
20 the Butte Creek Canyon/Honey Run area which, if you see the
21 little red line, the yellow line -- if you see the little
22 red icon, if you just go off of that point about right there
23 (indicating) and go up in the canyon a little bit and come
24 down a little bit, right in there, there was a spot fire
25 right in there (indicating). About 8:15 is when it starts,
26 but we don't know about it until 9:15. And it's already

1 pretty well established.

2 Q. So at 9:15 we now have a real established fire
3 reported by Chico fire engines in the Honey Run Canyon right
4 below Skyway?

5 A. Correct. And that becomes a significant issue. At
6 the time what ended up happening is that impacts the
7 evacuation route along Skyway extremely early in the day
8 which compounds the problem we have with congestion.

9 Q. We talked earlier about the evacuation plans. What
10 were the evacuation routes available to the persons in the
11 town of Paradise?

12 A. If you're not familiar with Paradise, there's only
13 really four ways to the south; Skyway, Pentz, Clark Road,
14 and Neil Road. Those are the main exits out of the town of
15 Paradise. Obviously, they can go north through Magalia, but
16 that goes down to one lane.

17 The problem on this day with evacuations were every
18 route was overran with fire during the evacuation. And it
19 was overrun early. And I know you've probably seen a lot of
20 videos through the media. Trying to get civilians to drive
21 through a flaming front isn't real easy. They don't like to
22 do it let alone untrained and not knowing where they're
23 going. So that compounds the evacuation. Flames are
24 leaning over a road so somebody stops. Well, that stops
25 traffic all the way back up. They're like "I'm not driving
26 through that." If there is nobody there to encourage it,

1 traffic just sits.

2 Q. So let's move on to Exhibit 115 that you have in
3 front of you. Do you recognize that?

4 A. Yes. I have 115.

5 Q. Do you recognize 115?

6 A. Yes.

7 Q. And that's the same exhibit that is going to show
8 up here on the big board?

9 A. Correct.

10 Q. This is another slide that you prepared?

11 A. Yes.

12 Q. What does Exhibit 115 show?

13 A. This was supposed to show from an estimated point
14 of origin to where the spot fire was located. This is the
15 distance the fire had traveled by 8:15.

16 Q. So this is 8:15 when the first person you said
17 reported to you fire in the Honey Run Canyon area?

18 A. The pictures were taken at 8:15. We didn't get the
19 reports until 9:14. So at 9:14 we knew this fire was in
20 Honey Run.

21 Q. But subsequently, you received information -- you
22 know that this fire was burning at 8:15?

23 A. Correct.

24 Q. So less than two hours from the initial report of
25 this fire, the fire is now burning on the west side of
26 Paradise in the Honey Run Canyon below the Skyway?

1 A. Yes.

2 Q. And were you able to approximate that distance?

3 A. Twelve and a half miles.

4 Q. So in less than two hours the fire had traveled
5 over 12 and a half miles?

6 A. And the issue now is the geographical distance is
7 so vast to reposition any resources from Pulga or Concow to
8 Butte Creek Canyon. And I don't know if you're familiar
9 with the area. It's an hour and a half drive. So if we
10 want to move a fire engine over there, it would take an hour
11 and a half to get there.

12 Q. And that was going to be my next question. Talk to
13 us about the initial approach. How this incredible rate of
14 spread affected or was effected by -- by your ability to
15 station resources?

16 A. So right around the 9:30 hour we conceded that this
17 was no longer a wildland fire and it was a mass casualty
18 incident at that point. And the fire is just part of the
19 emergency. We were no longer suppressing the fire. We
20 weren't squirting water. We weren't using bulldozers to
21 suppress it. We were purely in evacuation rescue mode.

22 That is when that spot fire got relayed to me.
23 There was nobody to send to it. And we knew it would free
24 burn. We knew it was going to burn a whole bunch of homes
25 at Valley View. But at this point we started basing our
26 actions off of where the evacuations were in the process,

1 who has been notified to evacuate, and how much time did
2 they have to exit the area.

3 Those that had little time got the most resources.
4 Areas that had hours the assumption is you will follow the
5 warnings and you will evacuate. Those areas were last to
6 get resources to assist because they were theoretically the
7 last to get impacted.

8 Butte Creek Canyon -- we did not put resources into
9 that until 4 o'clock. Those people were asked to evacuate
10 well before that. If they heeded the warnings, worse case
11 scenario their property was destroyed. We focused
12 everything on the town of Paradise and Concow because they
13 had very little warning and they were the ones needing
14 assistance. So that is how we allocated throughout the day
15 of who got what for evacuations.

16 And I think you guys have probably all heard it.
17 There just wasn't enough to go around. We had to pick and
18 choose who got what to assist.

19 Q. Let's talk a little about the deployment of
20 resources. Now, initially, the original call goes out and
21 the initial dispatch time is around 6:30 in the morning from
22 the Jarbo station, Battalion Chief Lowry, and
23 Captain McKenzie to Pulga; correct?

24 A. Correct.

25 Q. So we've got a wildland forest fire coming up to --
26 the original reports said the fire. You said that sometime

1 around 7:40 a.m. was when you got the report of the
2 potential or the determination of a potential second fire in
3 the Concow -- the eastern Concow area around Rim Road;
4 correct?

5 A. Correct.

6 Q. And assets from that were being sent to -- from
7 Pulga were pulled off and sent to Rim Road; correct?

8 A. Correct.

9 Q. And then when you know that -- first, we've got all
10 the assets that are scrambling up there. How did the speed
11 of fire affect your ability to deploy assets and get assets
12 out in front of the fire?

13 A. It's a terrible analogy. But as we were driving to
14 where we thought we needed to go, the fire was running past
15 us. So Captain McKenzie's augmentation of 15 additional
16 fire engines, initially we assign them to Concow because
17 that is where we were. When they got into Concow, they were
18 there. There was no redeploying them. The majority of them
19 went into Concow because we had major issues in Concow with
20 civilian fatalities, rescues.

21 In Butte County there's only 28 fire engines total,
22 and that's with operators. Thirty-two depending on the day.
23 We dispatched six, asked for 15. We're at 21 fire engines.
24 So there's only ten left for the entire county. And that's
25 the City of Chico, Oroville.

26 Q. Gridley?

1 A. Gridley. Ten for the entire county. They all got
2 dispatched. So now we have ten engines for a community of
3 30,000 just hit with evacuations.

4 Obviously, law enforcement -- you know, a lot of
5 people were helping. But to actually go up there and defend
6 evacuation routes, there were ten engines left because the
7 fire just progressed so fast where we had issues that that
8 is where we deployed them. By the time they got there, the
9 fire was well past it. We were still having issues in
10 Concow though with civilian rescues. There just wasn't
11 enough to go around.

12 Q. This would be a good time to ask. In your career
13 was this fire unprecedented in terms of the speed with which
14 it was spreading?

15 A. It's funny. You know, we've been asked that
16 multiple times. I have been on a few fires with similar
17 rates of speed. When you get into Southern California and
18 Santa Anna, they blow. I'm sure you've seen them on TV.

19 The difference on that day was -- and you're going
20 to see it. Some of you are looking at it now. It was a
21 direct bullseye. If you look at what we call banks, the
22 right side of the fire and the left side of the fire, it's
23 where the fire stops and the green starts.

24 At one point the flames literally lined up with the
25 town limit boundaries and it smacked Paradise right square
26 in the nose. I have never seen anything like that.

1 Usually, when you got fire in an urban area -- because you
2 start to have pavement, homes, parking lots -- the rate of
3 spread stops and it only penetrates -- you saw it in Sonoma.
4 It goes a little ways and the firefighters are able to pick
5 it up. You don't devastate an entire community.

6 And at one point around noon we needed to have some
7 structure statements for the State Operations Center to make
8 some judgments on what is happening. And when we were asked
9 "How many houses do you think have burned down," we do give
10 a swag. At that point we felt 10,000 homes had burned down
11 which is very unprecedented, the destruction and how fast it
12 moved.

13 And I'll be honest with you. Those conditions we
14 had met the criteria for red flag warning and bad fire
15 weather, but they were at the low end. There was times we
16 were way above that. And for the fire to move and do what
17 it did that day under the low-end threshold of this as bad
18 weather, it's absolutely amazing.

19 Q. You used the term "swag."

20 A. Swag. An estimate, a wind shield assessment of how
21 many homes you think that have been destroyed. It's not an
22 accurate assessment. It has to do with information down at
23 the State Operations Center. Oh, and they need some
24 intelligence on a trigger. It's something that goes on at
25 the state level on the amount of homes destroyed.

26 Q. All right. Next up we have Exhibit 101. Do you

1 recognize Exhibit 101?

2 A. I do.

3 Q. And the 101 that you're looking at is the same as
4 is being displayed here on the big board?

5 A. Yes.

6 Q. What is 101?

7 A. So that was data acquired by a satellite that was
8 passing by. And when the incident management team showed up
9 the following day, our Geographical Information System
10 component of the team, the mapmakers were able to get this
11 data and actually plot it on Google Earth. This photograph
12 was snapped -- if you want to call it a photograph. This
13 aerial imagery was snapped at 10:45 that morning.

14 Q. On the morning of the 8th?

15 A. On the morning of the 8th.

16 Q. And again, this is the GIS that is your degree in
17 college?

18 A. Yes, correct.

19 Q. And you have a background with Cal Fire and GIS?

20 A. Correct.

21 Q. Kind of give us a little explanation of what GIS
22 is.

23 A. I'm going to make it really rudimentary. It's
24 mapping. It's taking digital information and putting it on
25 a map. That is basically what it is.

26 In this case Deer Creek GIS are contractors that we

1 will ask to come help us. We have the expertise. They will
2 show up at the incident base, and they produce whatever maps
3 that we ask them to do.

4 Q. What does this map show?

5 A. So you can see if you guys look at your actual
6 handout -- I hope you can see it. If you want to look at
7 it, if you take the upper portion of it, you can see the
8 little lake. And that is Magalia Reservoir. I think it's
9 clear enough for you to see it to give you an idea.

10 Q. You can come up here to the board and point things
11 out. I'm sorry. And if you'd like to draw on it, we can
12 activate the drawing tools.

13 A. The fire starts somewhere in here (indicating).
14 The Magalia Reservoir is right here (indicating). So Upper
15 Skyway where it gets real narrow before it goes into Magalia
16 is right in this (indicating) area. Town limits. That is
17 Clark and/or Pentz and Skyway. Down here where this
18 really -- that is a heat signature. That means it's really,
19 really burning hot.

20 You can see all the little squares. Those are
21 homes that are on fire. This is the Feather River Canyon
22 right here and Pentz Road goes up there. Matter of fact,
23 you can kind of see the outline of Pentz Road. The town
24 limit sits about right there (indicating). You couldn't
25 have asked for more of a bullseye. This fire could have
26 gone this (indicating) way. This fire could have gone this

1 (indicating) way. If it started down here, it would have
2 been a glancing blow. The conditions were perfect.

3 Would you like me to go over --

4 Q. Sure, yep.

5 A. -- spot fires.

6 When we were talking, that is what those are
7 throughout the town. As the evacuation happened, that is
8 that 8:15 picture. I showed you a picture at 8:15. And at
9 9:14 we reported a fire in Butte Creek Canyon. That's it.
10 It is well-established in Butte Creek Canyon. It's 2,000
11 acres and is already crossing Skyway which impacts the
12 evacuations.

13 These spot fires were burning. If we're trying to
14 go down Skyway and one of these has impacted Skyway, we
15 can't drive through it. We had to reroute traffic. We
16 would reroute it. And I'm just throwing it out no
17 specifics. Because that day we were rerouting it all over.
18 We'd say "All right. Everybody now goes to Wagstaff to
19 Clark Road." And we're going down Clark Road -- so Clark
20 Road sits about right here (indicating). You get over to
21 here and there's fire here that has impacted it. And at one
22 point we just have to say "You got to go through."

23 That is really easy to say. But when you don't
24 have somebody down there actually saying "You have to go
25 through" -- and there wasn't -- that's when people were just
26 stopped and the gridlock started. And that's when we were

1 hearing reports of people saying "I'm getting out of my
2 vehicle and running." And that is when we started using the
3 temporary refuge areas. Like once people exit their
4 vehicles, it's really hard to get them back in their
5 vehicles. And it became very complex to manage that
6 evacuation at this point.

7 Q. Now, we talked earlier about, you know, kind of the
8 chaos. You're getting reports of fire here and there and
9 fire everywhere and, you know, a lot of it as we're looking
10 at it now in hindsight. This is part of the hindsight;
11 correct?

12 A. Correct.

13 Q. You're not seeing this on the morning of
14 November 8th. Now we're going back and seeing these
15 satellite images. And they help you make sense of the
16 information that you were getting at the time that seemed to
17 make absolutely no sense; correct?

18 A. Correct. This would have been instrumental in the
19 response that day. This type of data would have validated
20 or we would have understood the fire was throughout the
21 town. But that would have helped with the evacuations
22 because we just didn't know. All we had was verbal reports
23 of small spots here, spots there.

24 Our emergency personnel and law enforcement -- they
25 were stuck in the traffic also. I mean, they were taking
26 measures to get around it, but you didn't traverse through

1 the turn to go validate whether or not the road was open.
2 We just would assume that you're going to go through the
3 road.

4 Q. On that personal note, your initial incident
5 command post was at the parking lot of the hardware store in
6 Yankee Hill on Highway 70?

7 A. Correct.

8 Q. At one point didn't you have to abandon your post
9 there and evacuate the command post and move it?

10 A. Yeah, we did. Once the fire entered Paradise, we
11 understood what was about to happen. And we were in a poor
12 location with communications, cellphone coverage. This
13 would be a fairly significant event as you guys see now.
14 And we needed that to be more accessible to everybody
15 understanding that this was going to be a pretty major
16 event. So we repositioned it to Butte College around the
17 10 o'clock hour.

18 Q. But you got stuck in the traffic also at that
19 command center?

20 A. Yeah. Through your entire training once you set up
21 an incident command post where everybody rallies up, you
22 only move it if you absolutely have to because you have to
23 tell everybody "We're over here now," and they can't find
24 you. You need to have accessible room to expand.

25 But we had one bar, you know, on our cellphones.
26 And you guys know that type of communication is becoming

1 very critical. For radio traffic we weren't in a great spot
2 to receive radio terrific. It was fine for the initial fire
3 in Pulga and Concow. But when it got into Paradise, it
4 wasn't. So we moved.

5 Half the problem was with the 20 vehicles assigned
6 to that incident command post, only half had lights and
7 sirens. They were law enforcement. Fire -- we still have a
8 lot of non-emergency responders assigned to the command post
9 helping us. So we went in a caravan. And when we came down
10 Highway 70, we turned right onto Pentz and we took a left
11 onto Durham Pentz to head towards Four Corners. And at that
12 point now we're in the opposite lane. You know, the roads
13 are significantly impacted.

14 We broke over into the Butte College area where
15 Four Corners is and where the convenience store and gas
16 station is. And there was probably 2,000 people in that
17 intersection. And that is where we wanted to set our
18 incident command post center up. I thought "Oh, we're in
19 trouble" because we're stuck in traffic now and we're trying
20 to manage the most significant wildland fire in the United
21 States' modern history time and we're going to do it
22 separated from each other. And that is bad news, like bad
23 news. That was -- my first initial impression was "This
24 couldn't get any worse today."

25 The reports we were getting -- we were getting
26 multiple reports of people trapped. You know, burn victims.

1 And I'm trying to drive and write that stuff down, but that
2 is the ICP's responsibility to take that stuff down and get
3 it out to the right resources for assistance.

4 And so I'm stuck in traffic. We were able to take
5 some evasive maneuvers with traffic and didn't know where we
6 were going to go. And we were able to turn into the
7 entrance off of Clark Road into Butte College. And low and
8 behold there wasn't a single soul in there. And I don't
9 know why because there was at least 2,000 people in that
10 intersection right around the corner.

11 There was three events that day that put a pin in
12 my stomach. One was the air attack. One was the fire half
13 through town. The other one was being stuck in traffic at
14 10 o'clock. I really thought that that is where we would
15 spend the next five hours in traffic. That would have been
16 really bad.

17 Q. Now, one of the things we haven't talked about is
18 communication networks. Communications are essential in an
19 incident like this; correct?

20 A. Correct.

21 Q. What did the fire do to the communication networks?

22 A. Early on -- so a lot of main commune -- the fiber
23 optics, the phone lines that run along Pentz, early on those
24 were destroyed or damaged which crippled the landline
25 capability. And they did -- obviously, throughout the day I
26 had heard 60 cellphone towers burned down -- I don't know if

1 that's true or not -- which obviously crippled any
2 communications up on the fire line. We were still good at
3 Butte College to go anywhere else. But to call up into the
4 impacted area it was very difficult.

5 The problem is -- the reason why we use that -- we
6 don't like to use cellphones. We like to use radio traffic
7 because everybody can hear it and it creates situational
8 awareness on what is going on. You can imagine the radio
9 frequencies were pretty overwhelmed with radio traffic,
10 important radio traffic.

11 Q. So the fire took out a lot of the infrastructure of
12 the communications?

13 A. Early.

14 Q. Pretty early on?

15 A. Correct.

16 Q. And crippled communications?

17 A. Correct.

18 Q. All right. Let's move back to our timeline. We
19 are on 116 now. And do you have 116 in front of you?

20 A. I do.

21 Q. Do you recognize 116?

22 A. I do.

23 Q. And you see the same 116 up there on the big board?

24 A. Yes.

25 Q. And we are back to our timeline. Now what are we
26 looking at?

1 A. So about 14:00 -- or excuse me -- 2:00 p.m. traffic
2 starts to alleviate a little bit in the town of Paradise and
3 traffic is flowing. Evacuations are starting to move a
4 little bit better. We still are having problems because
5 there was a lot of people that were either trapped who saw
6 those spot fires. So they decided "I'm okay. I'm in the
7 green area. I'm not going to leave." Well, sooner or later
8 those areas burned. So there was a smaller population that
9 was still in the town of Paradise that we were driving
10 around helping to evacuate.

11 When we utilized those temporary refuge areas, we
12 had to have ways to get those civilians out. They still
13 were in jeopardy because those temporary refuge areas are
14 just that: Temporary. They're in an area that is safe for
15 the time being but most likely isn't going to be safe.

16 Some things that we did that day that has never
17 happened in the United States is we commandeered some
18 busses, the B-Line busses, we brought in Public Works
19 front-end loaders and we assigned fire department personnel
20 with them. And we drove them up the road and had them start
21 evacuating anybody that was walking down the road in these
22 temporary refuge areas.

23 The front-end loaders were pushing cars off the
24 road. And they were actually using their clamshell buckets
25 to cut power lines. Those power lines become a significant
26 issue. I have never seen anything like this. They came

1 down so soon. And they were major power lines, not just
2 little ones you can drive over. You know, the 12-inch cable
3 tower or power lines that were impeding the flow of traffic
4 out of town. And that became very successful that day of
5 getting more people out of the impacted area.

6 As the fire progressed out of the town of Paradise,
7 you guys know very well it gets into a grass-fueled type and
8 becomes easier to manage suppressing from a fire
9 perspective. Just grass is easy to fight fire in. The
10 problem is there was nobody to go fight it. We were still
11 all up in Paradise. We had very few fire engines.

12 At this point, the sun is about to go down. And if
13 we went back to that, you know, you don't need to. The wind
14 charts that you saw, if you went back and took a look at
15 them, on that night we had gusts of 70 miles an hour. The
16 wind blew harder that night than it did on the 8th.

17 The sun went down. So those conditions started
18 again. And we had fire running south, east, west in the
19 grass. It was pretty remarkable. We were back into the
20 "Where is this thing going?" And that is when we started
21 evacuating Oroville, Chico. Some portions of Chico were
22 evacuated. We were getting ready to evacuate the evacuation
23 Center, the jail. Again, there just wasn't enough
24 suppression resources to engage it as it came out of the
25 town of Paradise.

26 Q. So by 18:50 hours or 6:50 p.m., just 12 and a half

1 hours after it started, the next reports of the fire -- a
2 little less than 12 and a half hours where has the fire
3 spread to?

4 A. It's all the way down to Highway 99. A piece of it
5 had run to Highway 149 at Opensaw Road. It had crossed
6 Highway 99, and it was now coming down into the town, the
7 city limits around Skyway, Honey Run, and Stilson Canyon,
8 into the city of Chico.

9 Q. Back to our timeline, the fire continued to spread.
10 You just said the fire is threatening Stilson Canyon by
11 19:43 or 7:43.

12 A. Correct.

13 Q. And then 20:27 or 8:27 p.m. the fire is at Opensaw
14 Road on Highway 149?

15 A. Correct. At this point the incident -- let's back
16 up a little bit.

17 At 8:00 in the morning we asked for 250 fire
18 engines over the radio. Through a phone call we asked for
19 another 250, which is 500 fire engines at 8:00 in the
20 morning. That is the largest request for assistance in
21 California's history on initial attack fire. The problem is
22 there's obviously in California not 500 fire engines. So we
23 have to go as far as Southern California for them to drive
24 up to assist us. Long Beach City takes a long time to get
25 here.

26 About 19:43 and 20:27 Southern California fire

1 resources were just arriving into the county. Luckily, they
2 were driving through those areas as the fire was hitting
3 those roads, and they were able to engage with no direction,
4 no briefing, no frequency which violates pretty much any
5 protocol we have on wildland fire because it's a safety
6 issue. They were able to engage that portion of the fire
7 and make some really good efforts on controlling that spread
8 especially around the community of Chico.

9 Q. You said that -- or I'm sorry. Who is B2112 and
10 P2127? Do you know?

11 A. So the battalion 2112 is Battalion Chief Garrett
12 Sjolund and the prevention 2127 is John Gaddie, G-a-d-d-i-e.
13 Those two run into a little bit of trouble given they
14 weren't assigned to the incident. And they were giving us
15 an idea of where the fire spread was.

16 There's something else to consider on that. We
17 typically get our intelligence from our own personnel. "The
18 fire is at this point. The fire is at that point." In this
19 case on that day that couldn't happen due to the magnitude
20 of the situation and how many rescues were going on. We had
21 very little intelligence on the fire spread. Our aircraft
22 couldn't see through the smoke column because -- you've seen
23 pictures how it lays over. They couldn't tell where the
24 fire was. This was probably the first time that we actually
25 had one of our own employees tell us "Here is where the fire
26 is at" and validate it. It wasn't good news, but at least

1 it was some news.

2 Q. Now, I want to go back to something real quick.
3 You said earlier in Butte County there are 28 fire engines?

4 A. Correct.

5 Q. Correct? So on any given day there are 28 fire
6 engines available to fight whatever is going on? Fires and
7 everything else?

8 A. Correct.

9 Q. Your initial request to the state was for an
10 additional 250?

11 A. Correct.

12 Q. And your second request was for an additional 250
13 on top of that?

14 A. Correct. And this is for the -- what we consider
15 the initial attack, the early stages of a fire. We knew we
16 wouldn't get them all right then and there but that would at
17 least start the ball rolling. And at the time when we
18 placed the orders, we still felt that we were going to
19 defend portions of the town. And we didn't release that
20 thought until about 10 o'clock when we knew that it wasn't
21 going to happen.

22 Q. All right. So you said by 8:27 or by 20:27 the
23 fire had reached Opensaw Road and Highway 149?

24 A. Correct.

25 Q. Right. You have in front you 117, Exhibit 117.
26 See that?

1 A. Yes.

2 Q. Familiar with 117?

3 A. Yes.

4 Q. 117 in front of you is the same photograph that we
5 have up here on the board?

6 A. Yes.

7 Q. This is another map of Butte County; correct?

8 A. Yes.

9 Q. There is some yellow pins all over the place.

10 A. Yes.

11 Q. Describe for us what we're looking at here.

12 A. So I would have to say that is probably the -- as
13 the sun went down and the incident management team like took
14 every, you're looking at basically where the fire's
15 perimeter was on Opensaw to Neil Road up towards Chico. And
16 then, you know, where the pin drops are -- those are some of
17 the significant locations of fire spread throughout the day.
18 The piece down in Opensaw, that is the piece that we were
19 concerned about because of the threat that it had to
20 Thermalito. And if you zoom out a little bit wider, it does
21 have a large swath of grass going right into Thermalito.
22 And I think at this point we declared evacuation warnings
23 for at least the western portion of Oroville and Thermalito.

24 At this point we are starting to get some
25 suppression taking place. Bulldozers are engaging. The
26 Southern California resources are showing up, and we're able

1 to attack and make some really good ground along that
2 Opensaw Road back up towards Clark and then towards Lake
3 Oroville.

4 Q. So at sometime before 6:30 in the morning the fire
5 started clear up here?

6 A. Correct.

7 Q. And by 8:30 that night the fire has come all the
8 way down here through Paradise and is now attacking Chico
9 and potentially Oroville on Highway 149?

10 A. Correct.

11 Q. All right. On to 118. What is Exhibit 118?

12 A. This is the fire progression map throughout the
13 entire incident of the fire, but I'm going to step down if
14 that's all right.

15 Q. Absolutely.

16 A. This is the final perimeter of the incident when we
17 declared it contained November 24th or 23rd. As the sun
18 went down, I want to say, at 9 o'clock our perimeter was
19 basically this piece right to here (indicating). The fire
20 progression map is off on a couple of the colors. It's
21 showing this on the next day. That was done by 9 o'clock
22 that night. So if you want to go just on the outside of the
23 purple all the way around, that was our final -- that was
24 our perimeter at about 9 o'clock at night.

25 Q. Let's have you draw that. Hang on and I will get
26 it. Okay. Draw it with red. If you can draw the perimeter

1 of the fire by 9 o'clock on the evening of the 8th.

2 A. So everything inside the red was the 9 o'clock fire
3 perimeter estimated at 83,000 acres.

4 Q. And let's push "save" so it saves it. And by
5 9 o'clock that night -- oops. I've got to go back.

6 By 9 o'clock that night on November 8th what were
7 the resources that you had at your disposal?

8 A. We had 268 fire engines, 19 water tenders, 17
9 bulldozers, 35 hand crews were actively engaged in either
10 rescues or firefighting. Essentially to approximately 1450
11 personnel give or take some.

12 Q. All right. And then the next slide that you have
13 up there. It's in the PowerPoint entitled "Request for
14 help." I will let you explain this for us, please.

15 A. Yes. That was our request for resources within the
16 first 12 hours for assistance. And as you can tell, we had
17 50 aircraft requests, 585 engines, 87 hand crews, 106
18 bulldozers, and 247 overhead.

19 Q. So when you say 50 requests for aircraft, that's a
20 request for 50 aircraft; correct?

21 A. Correct. That is for a helicopter and a
22 fixed-wing. And we had asked for 50; a combination of 25
23 helicopters and, you know, 25 air tankers.

24 Q. You said that there are three air attack bases in
25 Northern California.

26 A. At the time six. Three had started early that day.

1 Q. Oh, okay. I misunderstood that. So six. How many
2 air attack bases is there total in California?

3 A. There's 11.

4 Q. And how many aircraft?

5 A. We have 23 -- we have 22 air tankers, fixed-wing
6 air tankers that drop retardant, and nine helicopters.
7 Nationwide there's only -- during that time there was only,
8 oh, about depending on what the federal agencies have on
9 contract, another ten. So we had about 33 air tankers
10 available nationwide. And we had asked for every single one
11 of them.

12 Q. So when you're asking for 50 aircraft, whether they
13 be fixed-wing or helicopter, you're asking for resources
14 outside the state of California already in the first
15 12 hours?

16 A. Correct. If they're sitting in Utah at 8:00 in the
17 morning, we asked for them to come out all the way from
18 Albuquerque. Depending on where they're sitting but, yes.

19 To give you an example of that 518 engine request,
20 through the California Mutual Aid System there's only 650
21 available fire engines. So we took 78 percent -- asked for
22 78 percent of the State of California's entire Mutual Aid
23 resources inventory at 8:00 in the morning.

24 Q. What is mutual aid?

25 A. It's where other departments will assist other
26 departments for lack of a better term or Cal Fire. And they

1 actually allow -- the departments will allow so many engines
2 to leave their jurisdiction to go help somebody out but
3 maintain coverage in their own. And it's about 650 state
4 wide.

5 Q. So by 8:00 a.m. you were already requesting
6 assistance from all over the state?

7 A. Correct.

8 Q. And at the bottom it says "overhead 247."

9 A. Yeah. That is line supervision, support personnel
10 specific -- specific individual requests who can help you
11 out with just the suppression. Somebody that helps with
12 logistics, planning. That type of request.

13 Q. All right. Next up we have a chart showing the
14 resources that were assigned to the fire on November 9th.

15 A. Correct.

16 Q. Can you explain this.

17 A. So of those 518 engines 440 of them showed up by
18 night. They may not -- you saw the sun went down. At
19 9 o'clock we had 268 fire engines. A few more went to the
20 line. These showed up the next morning for Friday morning's
21 operational shift. All those resources right there for a
22 total of 3,132 firefighters.

23 Q. So within 24 hours now we've got 440 engines, 67
24 fire crews, 16 dozers, 18 water tenders, and 278 logistics
25 or otherwise overhead personnel here to fight the fire?

26 A. Correct. And the only reason why we didn't get

1 more is if you guys remember around noon on the 8th in the
2 hills the Woolsey Fire started in Southern California which
3 ended up being the fourth most destructive wildfire in
4 California history. A lot of those engines that were coming
5 north turned around to go back to Malibu. So that was a
6 little bit of competition of resources through the day.

7 Q. So basically it was split between the north and
8 south?

9 A. Correct. If the fire would have started after
10 theirs, we would have seen around a fourth of those
11 resources show up.

12 Q. So this fire not only had a huge impact on the
13 North State and, of course, Paradise, the tragic impact in
14 the area, but this fire also especially affected Southern
15 California?

16 A. Drastically. The Cal Fire fleet engines of about
17 360 -- don't quote me on the exact number. The fire engines
18 they had on the Woolsey and the Hill Fires, which were state
19 response fires, they had no Cal Fire resources because they
20 all came to our fire.

21 Later in the year units felt like they could give
22 more than what they normally do. And we took probably
23 90 percent of all Cal Fire resources to this incident which
24 hampered the response in the Woolsey and Hill Fires.

25 Q. All right. Now on to Exhibit 119. And what is
26 119?

1 A. That's the final fire progression map. It's
2 similar to the first one, and it just shows by day how the
3 fire spread with a color associated to each day.

4 Q. Okay. And over near the bottom left corner we have
5 a chart. Can you explain how to read this.

6 A. I have to go take a look at it. So if you look at
7 the blue line and it gets a little bit more of the green,
8 that is -- those first three colors are the fire spread of
9 the first day. And then because there was so much fire
10 spread, they just didn't use one color. They kind of phased
11 it in over three.

12 So you're looking at about this color; right? This
13 line right here (indicating). So the fire spread on the
14 first day and then subsequent days after that shows the fire
15 spread. And we normally do this on every engine department
16 to show when the growth was.

17 As you can see, 90 percent of the fire growth
18 happened in that first 12 hours and after that throughout
19 the night of the 8th. And I note how that wind chart
20 spread. Those wind gusts came back up on the 8th, the night
21 of the 8th. Almost 3,000 homes burned in Magalia, just shy
22 of 3,000 homes that night because of those winds. And we
23 were still strapped for resources.

24 That would have been the third largest loss of
25 structures in any wildland fire just on the 9th. And that
26 didn't even register because of what happened on the 8th if

1 that makes sense. Those 3,000 homes that were burned in
2 Magalia on the 9th would have been the third largest
3 destruction of structures in California's history.

4 Q. You're talking about the destruction as part of the
5 fire -- as part of the mop-up of the fire when Cal Fire did
6 damage estimates and inspections?

7 A. Correct.

8 Q. And what does this slide represent?

9 A. So once it's safe to, we have a damage assessment
10 team that will go out and they will assess every structure
11 within the impacted area of the fire, and they categorize
12 major, minor, or just affected. And those are the numbers
13 that they came up with. And state wide was 19,548. That is
14 including the incorporated areas of Butte County. The one
15 below it is specifically for within the town limits of
16 Paradise.

17 MR. NOEL: All right. I have nothing further for
18 the assistant chief. If there are any questions from the
19 jurors, it will take a second. And give them to the
20 Sergeant at Arms.

21 [Attorneys conferring off the record.]

22 MR. NOEL: Is this the only ones? Nope. Okay.

23 [Pause in proceedings.]

24 BY MR. NOEL:

25 Q. All right. Assistant Chief, we have some of the
26 questions from the jurors.

1 Were you ever able to catch up to the fire in
2 comprehension on November 8, 2018?

3 A. That's a good question. 9:30, 9:38 is when we
4 fully comprehended what we had. And at that point the
5 incident objectives were relayed over the radio of "You will
6 only concentrate on maintaining evacuation routes and
7 rescuing civilians." And at that point is when we realized
8 that it was no longer a normal wildland fire fight, but that
9 it was a rescue, slash, mass casualty incident. But if you
10 want a timeframe on it when we finally said "Holy cow," it
11 was 9:38, I believe, in the morning when we finally . . .

12 Q. At any point were you made aware that evacuation
13 orders were not getting through to significant populations?

14 A. Formally, no. And we wouldn't normally. I do
15 remember a few reports on the radio of people -- you know,
16 people going door to door -- or firefighters going door to
17 door and, you know, radio traffic saying "They weren't aware
18 they were supposed to evacuate."

19 So it was just in passing of radio traffic, no
20 formal notification that evacuation notices weren't reaching
21 the general population.

22 Q. Do you think the conditions of fuel, terrain, and
23 weather were adequate to explain the rate of speed of this
24 fire? If not, what do you think would explain it?

25 A. I think I understand that question. It was a
26 combination of all three of those and the location that the

1 fire started was perfect for the weather to effect it. The
2 type of fuels that it was burning and the terrain that it
3 was going to line up with, you couldn't have asked for -- I
4 don't say this in a positive effect. You couldn't ask for a
5 more perfect alignment for the fire to do what it did.

6 Q. Would it be fair to say that a major fire was
7 anticipated in Paradise the question being a matter of when?

8 A. Yes. I will tell you -- to elaborate a little bit
9 on that. When we went back and I was describing operations
10 to the guys in charge of operations --

11 You have to go to a week-long class. All it does
12 is expose you to the position. In that week-long quantum
13 class you do multiple scenarios. And this is -- every
14 person in every fire department in California that wants to
15 be an operations chief or fire chief has to go through that
16 class to get qualified. In that class for 20 straight years
17 this was -- the Paradise fire was one of the scenarios
18 statewide that we exercised.

19 So I would have to say yes, we fully expected that
20 at some point sometime a fire would start and would impact
21 Paradise. But I'll tell you this: Nobody ever expected it
22 to happen the way it did and how fast it happened.

23 Q. You counted on the west branch being a firebreak;
24 correct?

25 A. Correct. We always thought it would come from
26 maybe Butte Creek Canyon under a north wind or from the

1 south up one of the drainages. And that would be a glancing
2 blow. We'd hold it in some of the communities. Never did
3 we expect it to come directly out of the east.

4 By noon -- essentially the town was destroyed by
5 noon. That never hit anybody's radar. We knew there was a
6 potential, but it never hit anybody's radar of that quick
7 and that large a scope.

8 MR. NOEL: Any further questions?

9 [Attorneys conferring off the record.]

10 **EXAMINATION**

11 BY MR. FOGG:

12 Q. Assistant Chief Messina, are you aware of the fires
13 that affected Sonoma and Napa Counties in 2017?

14 A. Yes.

15 Q. How did those fires affect your understanding of
16 whether fires could possibly impact Paradise and how fast
17 this fire spread?

18 A. Obviously, those were extremely significant fires
19 under the same conditions we had November 8th. They were
20 experiencing high winds also. What that fire did in Sonoma
21 and specifically the Tubbs Fire, like I was saying, when we
22 have wildland fires that encroach on an urban area,
23 typically they go one, two, three streets in and they go
24 out. Because believe it or not towns and cities make great
25 firebreaks. And I don't say that in a positive way. The
26 fire typically doesn't carry all the way through a town.

1 As you saw in Sonoma, it went through like an arrow
2 and hit the City of Santa Rosa and penetrated it and then
3 went out. It ran out of fuel to go house to house anymore.
4 That was the first time a fire has gone so far into a
5 downtown urban area that we've seen ever.

6 So everybody knew "Hey, Man, the fires are starting
7 to push further into town." For whatever reason the
8 conditions that were creating them is becoming a little bit
9 more normal. What it did do on this one is -- yes, we were
10 very -- like, I really expected at any point during the day
11 we'd get radio traffic saying "We've held the fire at
12 Skyway. We've held the fire at Billi. It's not advancing
13 any farther. We're making some success."

14 That never came at all. There wasn't one piece of
15 radio traffic that was positive that day through the entire
16 day. So while it was surprising, it wasn't. And I know
17 that kind of sounds odd but --

18 MR. FOGG: Thank you. I have no further questions.
19 Marc?

20 MR. NOEL: Nope. I think I'm good for right now.

21 GRAND JURY FOREPERSON: Okay.

22 MR. NOEL: Anybody else?

23 Madam Foreperson, would you admonish him and excuse
24 him.

25 GRAND JURY FOREPERSON: Okay. The admonishment
26 that I read to you earlier is still in effect.

Is that good enough?

THE WITNESS: I understand.

GRAND JURY FOREPERSON: Okay.

MR. NOEL: Yes, Ma'am. Thank you.

GRAND JURY FOREPERSON: Thank you.

MR. NOEL: And my next witness would be Captain Marcus Ekdahl. We have two handouts for this one, and they are hole-punched. Oh, I've got another one for you.

GRAND JURY SECRETARY: Okay.

MR. NOEL: Sorry.

GRAND JURY FOREPERSON: Raise your right hand,
please, while I swear you in.

Captain Ekdahl, do you solemnly swear that the evidence you shall give in this matter pending before the grand jury shall be the truth, the whole truth, and nothing but the truth so help you God?

THE WITNESS: I do.

GRAND JURY FOREPERSON: Thank you. Have a seat.

MR. NOEL: Please state your name and spell your last name for the court reporter, please.

THE WITNESS: Marcus Ekdahl. It's E-k-d-a-h-l.

EXAMINATION

BY MR. NOEL:

Q. Captain, by whom are you employed?

A. Say it again.

Q. By whom are you employed?

1 A. Cal Fire.

2 Q. In what capacity?

3 A. Fire captain.

4 Q. How long have you been employed by Cal Fire?

5 A. This is my 17th year.

6 Q. I'm sorry. I was distracted by a typo.

7 A. This is my 17th year.

8 Q. Seventeen years. What training and experience do
9 you have that qualifies you as a fire captain for Cal Fire?

10 A. There's -- you have to be a company officer first,
11 attend six weeks of company officer training. And I had
12 that engine experience, that firefighter experience. So I
13 took several years of company officer, state marshal
14 training. It started as voluntary. And you need all that
15 training to get to the minimum prerequisite to be a captain
16 and then be promoted and such.

17 Q. What was your assignment on November 8, 2018?

18 A. I was duty captain in the Oroville Emergency
19 Command Center.

20 Q. And what shift were you working?

21 A. That was completing my third day shift. So that
22 morning I was to go off duty on November 8th. But that did
23 not happen.

24 Q. What time were you supposed to go off?

25 A. 7:00 a.m.

26 Q. So you were in charge of the dispatch center at

1 approximately 6:25 a.m.?

2 A. Correct.

3 Q. At 6:25 a.m. and 13 seconds did you receive a 9-1-1
4 call?

5 A. Yes.

6 Q. Did you answer the call?

7 A. Yes.

8 Q. You personally?

9 A. Yes.

10 Q. You took the call?

11 A. Yes.

12 Q. And you have in front of you -- or I will hand to
13 you --

14 MR. NOEL: Let's mark this Exhibit Number 132 for
15 identification.

16 [Exhibit 132 marked
17 for identification.]

18 BY MR. NOEL:

19 Q. Are you familiar with the phone call on 132?

20 A. Yes.

21 Q. And what is that phone call?

22 A. The report of the fire from PG&E to us across from
23 the Poe Dam on the north side of the Feather River.

24 Q. So you spoke to the caller?

25 A. Yes.

26 Q. You identified the caller?

1 A. Yes.

2 Q. You inputted information into the computer?

3 A. The CAD, yes.

4 Q. The CAD. So the call was received at 6:25 and
5 13 seconds?

6 A. Yes.

7 Q. And what time was the call dispatched?

8 A. It was 6:31. It was pre-announced and dispatched
9 at that time.

10 Q. At what time did you release the CAD so that it
11 could go out via text message?

12 A. Right after that at 6:31. That is when the
13 incident is pre-announced, pre-alerted to our -- everyone on
14 the radio. And then right following that second call the
15 station alert goes out and dispatch is read.

16 Q. Now, I have also a document that has been marked as
17 Exhibit 132-A. Do you recognize 132-A?

18 A. I do.

19 Q. And 132-A is a transcript; correct?

20 A. Correct.

21 Q. Have you reviewed 132-A, the transcript, against
22 the recording on 132?

23 A. Correct.

24 Q. And does 132-A fairly and accurately represent the
25 conversation recorded on 132?

26 A. It does.

1 Q. If I can get 132 back. I want you -- I want to
2 play this. And we'll listen to it and then we'll come back
3 and ask you some questions about it and have you narrate
4 some things.

5 [Exhibit 132 played in open court.]

6 MR. NOEL: All right. One thing -- I'm sorry,
7 Madam Foreperson. I neglected to deal with this. Standard
8 operating procedure is -- and we should have asked your
9 permission -- is that the court reporter does not take down
10 recordings that are played in evidence. We have the
11 transcript and we have the recording itself. Madam court
12 reporter knows that. I apologize that we didn't alert you
13 to that before that happened.

14 GRAND JURY FOREPERSON: Okay.

15 MR. NOEL: Everybody notice that she was very
16 relaxed and her fingers weren't moving while we played the
17 recording.

18 BY MR. NOEL:

19 Q. All right. You have heard that recording; correct?

20 A. Correct.

21 Q. And that is you talking to the original RP who
22 identifies him as (WITNESS #7)?

23 A. Correct.

24 MR. NOEL: And for the record, just to remind you
25 again, Ladies and Gentlemen, the contents of the recording
26 at this point in time are not being offered for the truth of

1 the matter thereof. That includes the hearsay, for
2 instance, of the identity of the person being Dave Clark.
3 They are simply being offered to explain and lay the
4 foundation for what is going to come later.

5 So any of the statements in there aren't for the
6 truth of the matter at this time until such time as we have
7 proved them up with the people who made those statements.

8 You can hear in the background that the caller, who
9 identifies him as (WITNESS #7), is talking to somebody else
10 and is getting information from that person. And until we
11 get that person to come in and testify, those are hearsay
12 statements and can't be considered as evidence.

13 Thank you.

14 BY MR. NOEL:

15 Q. All right. Give us an explanation of that. As
16 you're in the ECC and you're dispatching or taking calls,
17 what does your workstation look like?

18 A. It's a pod. It consists of four CAD computers,
19 common fire equipment, a desk, a monitor. I have a phone
20 monitor, an emergency com, which is our radio, and a regular
21 9-1-1 phone monitor. So several monitors and one chair.
22 And I've got a console that raises up and goes down so I can
23 stand up and sit down. And there's a plastic partition
24 around there. And there's basically six pods in our work
25 center. And we're -- basically there's four in the center,
26 five over there, and six in the corner.

1 Q. It's fairly obvious in listening to the content of
2 the conversation that you have a map in front of you?

3 A. Correct.

4 Q. Correct?

5 A. Correct.

6 Q. Explain to us how you get a map.

7 A. So when (WITNESS #7) told me where the fire was
8 north of the Poe Power Plant, I put -- I type in Poe, and I
9 get the Poe Power Plant immediately and it plots it on the
10 map. And he said it's on the north side of the river which
11 puts it where he's referring to the railroad tracks. So I
12 could reference where the railroad tracks are. The CAD
13 mapped it, and I could see the transmission lines.

14 And he says "It's near those transmission lines or
15 underneath them." So that's why I was verifying with him
16 "So it's underneath those transmission lines on the north
17 side of the Feather River." Because I want to send help to
18 the right location. And it's really, really important if
19 you're going to send a big response like this that you get
20 it right from the start. So don't sent them to Rock Creek
21 Powerhouse when it's really down by Poe. So take the extra
22 few moments verifying the information and send it to the
23 right location first.

24 Q. So I'm showing you what has been marked as
25 Exhibit 133. 133 is a map depicting the locations that are
26 described in the phone call; correct?

1 A. Correct.

2 Q. Now, that is not the map that you were looking at
3 on your screen?

4 A. No.

5 Q. But something similar to that?

6 A. Yes.

7 Q. And you're able to tag a location and --

8 A. Yeah. Well, what we did was -- so we got the Poe
9 Power Dam plugged into the CAD, but we don't want to send
10 help to the Poe Power Dam. We want to send it across the
11 river. So we select a point on the map and drop the point
12 exactly where he's telling us where the fire is. When it
13 come in as lat/long, we send help exactly where he reported
14 it to us across the river underneath the high tension power
15 lines.

16 Q. So when you're plotting this out, you're getting
17 the information off the map that you're putting into your --
18 you know, basically dropping a pin where he's describing
19 what is going to be the latitude and longitude and that
20 basically turns into what is marked there as the 27/222 Camp
21 Fire origin; correct?

22 A. Correct.

23 Q. That was just above Poe Dam under the power lines?
24 Under the transmission lines?

25 A. Yes.

26 Q. All right. And then also on this map the caller

1 identified that they were calling from the Rock Creek
2 Powerhouse?

3 A. Yes. (WITNESS #7) was and his employees were
4 looking across from the Poe Dam area.

5 Q. Okay. And Mr. (WITNESS #7) indicated that he was
6 getting this information from other PG&E employees?

7 A. Correct.

8 Q. Now, first off at the very start, we hear a female
9 voice -- we start off and we hear a computer voice and then
10 we hear a female voice that is telling you that they're
11 transferring a call to you?

12 A. Correct.

13 Q. Explain to us how that happens.

14 A. So this is the command center. We're a secondary
15 piece. And so public safety is answering at this point. So
16 law enforcement most times gets the call first, and they
17 determine whether it's law enforcement, a fire need, or a
18 combination of both.

19 So in this case listening to the recording it seems
20 to me it was a Chico Fire with a transfer or Chico with
21 transfer. So from what my experience is is Chico PD
22 received the 9-1-1 call from PG&E and then they realize
23 where it's at in the geography and it's in the county and
24 then they transfer the call -- since it's a fire and not law
25 enforcement, they transfer it to us which is the correct
26 thing to do.

1 MR. NOEL: Anything more you guys can think of? I
2 think that's all I have of this witness at this point.

3 Do the jurors have any questions? I don't see
4 anyone volunteering any questions.

5 GRAND JURY FOREPERSON: Okay.

6 MR. NOEL: The witness admonition.

7 GRAND JURY FOREPERSON: Okay. Mr. Ekdahl, you are
8 admonished not to discuss or disclose at anytime outside of
9 this jury room the questions that have been asked of you or
10 your answers until authorized by this grand jury or the
11 court. A violation of these instructions on your part may
12 be the basis for a charge against you of contempt of court.
13 This does not preclude you from discussing your legal rights
14 with your own attorney.

15 Mr. Ekdahl, what I have just said is a warning not
16 to discuss this case with anyone except the court, your
17 lawyer, or the district attorney.

18 Do you understand?

19 THE WITNESS: I understand.

20 GRAND JURY FOREPERSON: Okay. Thank you.

21
22 [DISCUSSION OMITTED.]

23
24 MR. NOEL: As he's doing that, I would ask Madam
25 Foreperson to move all of the exhibits that have been
26 offered today that haven't already been accepted into

1 evidence into evidence.

2 GRAND JURY FOREPERSON: Yes.

3 [Exhibit 101, 106 through 119, 132,
4 132-A and 133 received into evidence.]

5
6 [DISCUSSION OMITTED.]

7
8 [Grand Jury adjourned at 12:06 p.m.]

9 --oOo--
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COURT REPORTER'S CERTIFICATE

This is to certify that I, Lisa McDermid Welch, a Certified Shorthand Reporter of the State of California was present at the time and place the foregoing grand jury proceedings were had and taken in the within matter; and that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings; and afterwards caused my said shorthand writing to be transcribed into typewriting; and the foregoing pages, beginning at the top of Page 1 to and including Page 106 hereof, constitute a full, true, accurate, and complete record of the proceedings.

DATED: This 6th day of June, 2022.

Lisa McDermid Welch

LISA MCDERMID WELCH, CSR, RPR
CSR LICENSE NO. 10928

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

BCSC-2019-GJ-01

REDACTED
CERTIFIED
COPY

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, MAY 7, 2019

VOLUME 6

OROVILLE, BUTTE COUNTY, CALIFORNIA

JENNIFER L. HUNT, CSR 10735, OFFICIAL COURT REPORTER

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DEPARTMENT OF JUSTICE

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OROVILLE, BUTTE COUNTY, CALIFORNIA

TUESDAY, MAY 7, 2019

8:30 a.m.

(Confidential Grand Jury Proceedings)

-oOo-

[DISCUSSION OMITTED.]

(Grand Jury's Exhibits 118, 118A admitted into evidence.)

[DISCUSSION OMITTED.]

[ROLL CALL OMITTED.]

(GRAND JURY FOREPERSON swears in witness.)

CHIEF STEVEN HAWKS

having been called as a witness in
the matter now pending, having been first
duly sworn, testifies as follows:

THE WITNESS: I do.

GRAND JURY FOREPERSON: Thank you. Have a
seat, please.

EXAMINATION

BY MR. NOEL

Q. Deputy Chief, can you please state your full
name, spell your last name for the record.

1 A. Steven Renee Hawks, H-A-W-K-S.

2 Q. Now, we had briefly heard from the David Hawks.
3 Is there any relation?

4 A. Yes. He's my brother.

5 Q. By whom are you employed?

6 A. With the California Department of Forestry and
7 Fire Protection.

8 Q. How long have you been with Cal Fire?

9 A. This will be my 31st fire season; since 1989.

10 Q. What is your current rank?

11 A. Deputy chief.

12 Q. What does that mean?

13 A. It's -- I'm the deputy chief of our
14 department's Wildland Fire Prevention Engineering Program
15 out of our state fire marshal's office in Sacramento. So
16 I oversee defensible space, damage inspection, and
17 utilities.

18 Q. Walk us through your career with Cal Fire last
19 31 years.

20 A. I started out in 1989 as a seasonal firefighter
21 with Nevada-Yuba-Placer Unit at Columbia Hill Fire
22 Station. First fire years were just seasonal, because
23 that's our firefighter 1 classification's seasonal
24 classification. So during the non-firefighting months, I
25 would -- went to college and received a bachelor's degree
26 in forestry.

1 So I worked in Nevada-Yuba-Placer Unit as a
2 seasonal firefighter for six years -- six years? Yeah,
3 six years. Then I received a seasonal promotion to
4 engineer, limited term, in Nevada-Yuba-Placer Unit
5 working in Lincoln. And then I promoted to permanent
6 engineer in Sonoma-Lake-Napa Unit over in Napa as a
7 permanent engineer. And then three and a half years
8 later promoted to fire captain at Napa. And then 2013 to
9 battalion chief in Yountville, just north of Napa. And
10 then in 2016 my current classification as Deputy Chief in
11 Sacramento.

12 Q. Couple of terms you have used; if you can
13 explain them for the jurors. You talked about
14 Nevada-Yuba-Placer?

15 A. Yep.

16 Q. And Sonoma-Lake-Napa?

17 A. So we break -- our department is a statewide
18 agency. We break it down into what we call units. And
19 units are based on county boundaries. So
20 Nevada-Yuba-Placer is, those counties comprise that one
21 unit. And then Sonoma-Lake-Napa is a second of our 21
22 units. There's three additional -- we call it
23 Sonoma-Lake-Napa, but there's three additional counties,
24 Colusa, Yolo, and Solano that comprise the
25 Sonoma-Lake-Napa unit.

26 Q. So what unit is Butte in?

1 A. Butte Unit is one singular county comprising
2 that unit.

3 Q. So unlike, unlike them, we're important enough
4 that we have our own unit; correct?

5 A. I believe so.

6 Q. We don't have to share it with Tehama or Lassen
7 or any of those people.

8 What are your duties as the, as the Deputy
9 Chief in the fire prevention?

10 A. So, the Public Resources Code mandates that our
11 department enforce the forest and fire laws. So Public
12 Resources Code 4119 says Cal Fire shall enforce the
13 forest and fire laws. And so there's a number of them
14 that pertain to my job duties. Public Resources Code
15 4290 is fire safe development. Public Resources Code
16 4291 is defensible space around homes. And then Public
17 Resource Codes 4292 through 4296 deal with electrical
18 utilities. And so I oversee the programs that manage,
19 within our department that manage inspections or dealing
20 with those areas.

21 Q. How do you prevent fires?

22 A. Well, the first thing is to try and prevent
23 them from starting. So eliminating or reducing the
24 number of ignition sources. And then, secondly, we
25 understand that, you know, California has an environment
26 that is just conducive to wildland fires, and we're never

1 going to prevent every one of them, is how do we make
2 them less catastrophic, I guess, less damaging to the
3 environment as well as the built environment -- homes and
4 infrastructure, structures in general. So reducing the
5 number of ignitions would be educating the public,
6 because 95 percent of all fires that start are human
7 caused. And so trying to educate the public on ways to
8 reduce those ignitions.

9 Q. Would human-caused include machinery or
10 equipment created by humans?

11 A. Correct. Could be engines or trains, could be
12 electrical infrastructure, it could be someone trying to
13 do defensible space by weeding or weed-whacking down
14 their weeds and inadvertently causing a fire. Could come
15 from a vehicle itself, dragging a chain or catalytic
16 converter that hasn't been properly maintained. There's
17 a number of human-caused categories.

18 Q. Right. So human-caused includes other things
19 than the stereotypical guy throwing the cigarette out the
20 window and starting a fire or actually taking a match and
21 putting it to fuel and starting a fire intentionally?

22 A. Correct.

23 Q. You've used the term "defensible space." Can
24 you define for us what that means?

25 A. So defensible space is reducing the amount of
26 flammable vegetation around the structure.

1 And I referred to Public Resources Code 4291,
2 which is the statute that requires defensible space. It
3 requires up to a hundred feet or to the property line,
4 whichever is closer. So if the property from the outer
5 edge of a house to the property line is 30 feet, then we
6 can only enforce that 30 feet. We cannot enforce the
7 remaining 70 feet on the other side of the property line.
8 And it's broke down currently into two zones. Zero to 30
9 feet out from the structure is the most critical area,
10 the area that requires the most amount of fuel reduction
11 of keeping like weeds mowed down to ground level, trim
12 trees off the ground. We're trying to prevent fire from
13 getting from the ground up into the tree canopy where it
14 becomes more destructive at that point.

15 Spacing of trees and vegetation both
16 horizontally, provide enough spacing to them so that if
17 one bush or tree catches fire it won't spread to the next
18 one or have a reduced chance of spreading to the next
19 one. And also vertically. So not having, you know,
20 grass and then a brush and then a tree so that fire can
21 go from the grass to the brush to the tree, what we kind
22 of commonly refer to as "fuel ladder." The ladder, then
23 that would allow the ground fire to go from the ground up
24 into the tree canopy.

25 It requires eliminating debris that accumulates
26 on a house, on a roof line of a house, or in gutters. So

1 pine needles and leaves and dead branches that may fall
2 off the tree and/or on a house.

3 Having a chimney that has a screen around it,
4 because the law originally was put into place to provide,
5 try and prevent a home from being on fire and spreading
6 to the wildland. Now it's evolved over the years to try
7 and prevent a wildland fire from spreading to a home as
8 well.

9 So that was the original intent of the law.

10 Q. In addition to the 4291, the defensible space,
11 does your division do other things to mitigate the
12 chances of structures burning down?

13 A. I do work with our code development division in
14 our fire marshal's office that is responsible for
15 developing the California Building Code Chapter 7A,
16 Building Standards.

17 So building standards for buildings that are
18 being built out in our Wildland Urban Interface, where
19 the fuel and the structures kind of intermix or meet each
20 other. And that became, or came into effect in 2008. So
21 all of the new construction after that, that's out in our
22 Wildland Urban Interface is supposed to be built to a
23 certain standard that helps reduce the chances of them
24 catching fire or make them more fire resistant.

25 So I sit on that committee that meets regularly
26 to look at that, those codes, and see if there's any

1 changes that we can make to them that would help reduce
2 the number of structures that are catching fire.

3 Q. What is the state fire marshal's office to
4 which you've referred?

5 A. The state fire marshal's office is a, it was
6 originally its own state agency. And I can't remember, I
7 think it was maybe 1993 or somewhere in there, roughly,
8 the state merged Cal Fire -- or the Department of
9 Forestry and Fire Protection then with the Office of the
10 State Fire Marshal. So now the state fire marshal's
11 office resides within California Department of Forestry.
12 And in Sacramento it's its own building. And it deals
13 with a number of things.

14 We have state fire training, we have fire and
15 life safety which do building inspections on new
16 construction as it's going, as it's being constructed to
17 make sure that all life safety components, sprinklers,
18 exits, extinguishers and so forth are in place.

19 We have a fire engineering division that deals
20 with fireworks, extinguishers, sprinklers, and basically
21 certifies them.

22 We have the division that I work in, which is
23 planning and risk analysis, that deals with wildland
24 components.

25 So there's my program, then we have a fire plan
26 program, we have a land use planning program, and, and a

1 fire, fire prevention grants program where we issue out
2 grants to nonprofit agencies and government agencies to
3 reduce fuels in communities.

4 Q. You should have in front of you what's been
5 marked as Exhibit No. 105.

6 A. Yes.

7 Q. Do you see that --

8 A. I do.

9 Q. -- displayed here on the big board, published
10 for the jurors? Do you recognize Exhibit No. 105?

11 A. I do.

12 Q. What is Exhibit No. 105?

13 A. Exhibit No. 105 is a Damage Inspection Map of
14 the Camp incident that my program is responsible for
15 producing.

16 Q. That's the next question. How is it that your
17 program is responsible for doing this?

18 A. So Cal Fire has been doing damage inspection on
19 wildland fires for a number of years, for several
20 decades. And originally the intent was to look at
21 defensible space laws, analyze the data and see if our
22 defensible space laws, 0 to 100 feet of fuel reduction
23 around homes, was adequate enough to reduce the risk for
24 homes in a wildland fire, or should we make additional
25 recommendations to increase the amount of fuel reduction.

26 Originally, it was all hand paper, go out,

1 write all the information that we wanted to document on
2 paper forms. There was no consistency as to what we
3 documented, what final report we produced and so forth.

4 And in 2014, the Boles Fire in Siskiyou County,
5 the town of Weed, burned through the town, and for the
6 first time we used a mobile data collection app. There's
7 a company called ESRI, E-S-R-I, and they produce several
8 different mobile apps. that can be used on any smart
9 device -- tablet or phone -- or any operating system,
10 Android or IOS.

11 And so now we're able to, from that fire going
12 forward, have one centralized electronic database where
13 we standardize the information that we gather during the
14 damage inspection process. And it is at times real-time.
15 It can be used when there's connective environment out in
16 the field.

17 So when inspectors are in the field and they do
18 the documentation, they press save on the record, if
19 they're in a connected environment, it immediately goes
20 into the database and can be viewed from any location if
21 they have access to it.

22 Other times, it can be used what we call
23 "offline," where there's no connectivity, in which case
24 the record is stored on the device until the inspector
25 gets back to a connected environment, then all the
26 records are at that point synced to our database.

1 So it's real-time to near real-time data
2 collection. And it puts the point on the map of the
3 exact location, it geolocates the point on the map of the
4 location of the incident or the structure that was
5 damaged or destroyed. And it ties all the data that we
6 document on each of those structures to that point.

7 And then we also take a picture of the
8 structure. And it's also tied to that location.

9 Q. You said originally the damage inspection
10 program was used to evaluate defensible space. I'm
11 guessing that that's changed or expanded over the last 11
12 years?

13 A. That's correct. So the original intent was to
14 evaluate our defensible space. Now we've added in
15 evaluating public resources. Public Resources Code 4290,
16 the Fire Safe Development Standards, which is clearance
17 around roadways, water source at a house, greenbelts, and
18 so forth.

19 And we've also added in analyzing that the
20 California Building Code Chapter 7A, the WUI Building
21 Standards, to look at the data to see if there's, you
22 know, meaningful recommendations we can make to those
23 codes to improve them, ultimately to make homes more fire
24 safe. And we also report this data at the time of the
25 incident to, through our public information officers, to
26 the media and to the public. So that data goes out to --

1 because what most people want to know about the incident,
2 how is it impacting the communities, how many structures
3 are damaged and destroyed, and so forth. So that's the
4 information that my program has available that, that we
5 make available through our public information officers to
6 the public media, our elected executive officers within
7 our department, and other elected officials.

8 Q. So Exhibit 105 is the Damage Inspection Map.
9 And all of these little red points, all of those little
10 red dots is a structure that was destroyed; correct?

11 A. Correct.

12 Q. But it sounds like these Damage Inspection Maps
13 that get all the publicity and show up, knowing the press
14 and everything else, and that we're using here are
15 actually just a by-product of something else that you're
16 doing?

17 A. Correct. Yeah, it -- again, the main goal is
18 to evaluate our laws and regulations to see if we can
19 make meaningful changes. But the by-product is that we
20 have that information available. And we're one of the
21 only agencies and -- that has that information that can
22 be made available in near real-time to real-time to the
23 public to inform them and the press about the impacts of
24 the incident.

25 Q. And you're required by Cal Fire to collect this
26 information from every fire incident, or wildfire

1 incident?

2 A. We are. Our director of our agency signed a
3 memorandum to direct our agency to conduct damage
4 inspection on every wildland fire in our state
5 responsibility area, the area that we're responsible for
6 wildland fire protection, if one or more structures is
7 damaged or destroyed.

8 Q. I'd like for you to walk through the mechanics
9 of how the information is obtained for us. Start off
10 with, as you said, each one of those little red dots
11 represents a destroyed structure. Who and how goes out
12 and finds those structures and makes the determination
13 whether they're damaged, destroyed, or fine?

14 A. So, I'll go back a little bit to kind of
15 explain the process. There is a two-day training course
16 that we put our inspectors through to train them how to
17 use the ESRI collector app. That's the app. that --
18 ESRI, again, is the company that produces this mobile
19 app. And they produce a generic app. that anybody can
20 purchase a license to utilize. So we have a number of
21 licenses to utilize their products. And then we program
22 into the app. the information that we want to collect.
23 And so that's another slide coming up.

24 Q. We'll get to that in a second. Let's talk just
25 about the people.

26 A. They go through a two-day training course.

1 When they successfully complete the course, they're
2 entered into our ROSS. We call it ROSS, it's an acronym
3 R-O-S-S, stands for Resource Ordering and Status System.

4 So when a fire happens like the Camp Fire and
5 they determine that they need damage inspection
6 personnel, they say, "Okay, we need ten personnel to
7 just," as an example, "to conduct damage inspection on
8 this incident." Those ten requests go into this ROSS
9 system, then it pulls up who is qualified to work as a
10 damage inspection specialist. And then those personnel
11 are contacted and sent to the incident. So that's that
12 component of it.

13 Then there's three different job
14 classifications on an incident that work in damage
15 inspection. There's a damage inspection manager. And
16 they're overall responsible for the whole damage
17 inspection process on the incident. And there's
18 typically going to be two of those. Due to the
19 complexity of incidents that we've been having recently
20 as well as the political aspect of these incidents, we
21 typically assign two of them to the incident.

22 Then we have a GIS, Geographic Information
23 Systems, specialist that do all of the behind-the-scenes
24 -- working with the collector app., programing it to be
25 able to collect the data that we want to collect, make
26 the map products and the final reports.

1 And then there's the damage inspection
2 specialists. And those are the actual field inspectors.
3 And we team them up into pairs primarily for safety when
4 they're out there in the incident. Because of the
5 dynamics of the incident and multiple hazards that are
6 out there, we team them up in pairs of two. And they
7 each have a smart device with them that has the collector
8 app. on it. Then we send them out to the field. And we
9 direct them into -- we break the incident up into zones
10 to methodically search the incident for all the
11 structures that are out there so that we don't miss
12 anything. And then we have them run a track log, which
13 is --

14 Q. Let's stop right there. We'll get to that in
15 just a second. I want to focus right now on who these
16 people are that are actually doing the inspections.

17 So these people have to go through a
18 training --

19 A. Correct.

20 Q. -- that's put on by Cal Fire, by your unit --

21 A. Correct.

22 Q. -- to qualify to do this. But what qualifies
23 them to go to the training in the first place?

24 A. There's minimum qualifications, prerequisites,
25 to get into the class. And so those are some ICS,
26 Incident Command System, courses. So having some general

1 knowledge about the Incident Command System that we
2 utilize on our fires.

3 There's a training handbook that the National
4 Interagency Fire Center, NFC, has created on land
5 navigation so that they know how to navigate using GPS
6 while they're out there on the incident and the smart
7 device as the collector app.

8 Then there's a firefighting course that they
9 have to take through our department, our basic wildland
10 firefighting course so that they understand basic
11 wildland firefighting terminology and hazards so that
12 while they're out there on the incident they can operate
13 safely and not become injured.

14 So they have to do those courses as
15 prerequisites in order to get into the damage inspection
16 course. And then once they complete that, then they are
17 in the ROSS ordering system and they can be ordered for
18 an incident.

19 Q. Is it a prerequisite to getting into this
20 training and ultimately into the damage inspection unit
21 that the person be a firefighter?

22 A. No.

23 Q. Is it a prerequisite that they work for Cal
24 Fire?

25 A. No.

26 Q. Is it a prerequisite that they work for some

1 state agency?

2 A. No.

3 Q. Is it a prerequisite they work for some public
4 agency, including city, county?

5 A. Yes.

6 Q. Okay. So they have to be a public employee?

7 A. Correct.

8 Q. And any particular type of departments within
9 counties?

10 A. It's usually within the fire departments, but
11 it can involve building official.

12 Q. But everybody who is, who is part of this
13 program, everyone who is in your team of damage
14 inspectors that can be called up through the ROSS system
15 testimony are all public employees?

16 A. Correct.

17 Q. Now let's move on to the information that
18 they're actually collecting and how they're collecting
19 that.

20 A. Okay.

21 Q. Who determines -- or is there predetermined
22 information that the damage inspectors, once they've been
23 called up, now they're deployed on an incident, say the
24 Camp Fire, information that, that they're getting?

25 A. Yes. We have a standardized, we call it,
26 technical term is a schema, which is a data set

1 basically. So we have a standardized data set for
2 wildland fire that we collect the same information
3 statewide on any wildland fire that we go to. And that's
4 determined by the program that I manage.

5
6 (Grand Jury's Exhibit 135 was marked for identification.)
7

8 Q. Okay. Directing your attention next to
9 Exhibit 135 in front of you displayed on the big board
10 and published to the jurors. Do you recognize 135?

11 A. I do.

12 Q. What is 135?

13 A. It's the Damage Inspection Worksheet that I
14 created.

15 Q. Is this essentially the information that the
16 damage inspectors are expected to obtain in the field?

17 A. Correct. So just like any electronic device,
18 they cannot function correctly at times. Either the
19 mobile device can stop working or the app. can stop
20 working. So we have a hard copy form to use in those
21 instances so we can continue with our job. In which
22 case, we document -- everything that we would normally
23 enter in through the mobile app. we document on this
24 form. And at some point in the near future we will take
25 that information and enter it into the database
26 electronically. So this, the best that I could make this

1 mirror the information that we collect through the
2 collector app., that's what this form represents.

3 Q. So let's walk through the form and the
4 information that the individual inspectors are to provide
5 and to obtain.

6 So, of course, it starts off with their names,
7 the date the inspection's done; correct?

8 A. Correct.

9 Q. Goes through the incident date, incident
10 number, and incident start date. Can you explain to us
11 what those are?

12 A. So every incident that we respond to gets an
13 incident number based on the Cal Fire unit - based on the
14 state, the Cal Fire unit, and then sequentially based on
15 the calendar year. So for the Camp Fire, the incident
16 number is 12 digits long. And it's standard throughout
17 our department. Or actually throughout California fire
18 service. So starts off with CA for California, then the
19 next three letters are B-T-U for the Butte unit, then
20 there's a space in there. And it's actually standardized
21 throughout the country; some other states have four
22 letter identifiers for their agencies. In California we
23 only have three. Then there's a six digit number that's
24 sequentially starting from January 1 at midnight
25 throughout the year that numbers the incidents. That's
26 how we determine the incident number.

1 Each incident is also given a name. Typically
2 it's based off of a road or landmark in the area where
3 the incident starts. Then the start date is the date the
4 fire starts.

5 Q. So that's all information that Cal Fire
6 provides to the inspector?

7 A. Correct.

8 Q. Now, we move down to the section entitled
9 "Physical Address."

10 A. Yes.

11 Q. Describe for us what that means.

12 A. So we have the lat and long, latitude and
13 longitude, that the inspector can utilize a handheld GPS
14 to obtain the latitude and longitude to the structure
15 that's been damaged or destroyed. They'll document those
16 on there so we can geolocate that point on a map when we
17 enter this information into the database at a future
18 date.

19 There's also the street name, street number,
20 city, state, and zip code. And that's the best that our
21 inspectors can determine in the field.

22 Oftentimes, the homes are completely destroyed.
23 And so if the street, the number of the house is put on
24 the side of the house and the house has been destroyed,
25 then it may be difficult for us to determine the street
26 number, for example. Or if the street name has been

1 destroyed in the incident, then could be difficult for us
2 to determine that. But we try the best we can to
3 identify the site address of the property of that
4 structure on this form.

5 Q. Okay. Like you said, this is, this is a hard
6 copy backup form that was created that goes along with
7 the app.?

8 A. That's correct.

9 Q. For the most part, you, your guys in the field
10 are going to be actually using a smart device, either a
11 phone or a tablet, to enter all this information?

12 A. Correct.

13 Q. Does the app. itself work with say GPS
14 technology?

15 A. Yes, it does. It has.

16 Q. So when they're out in the field with their
17 smart app., with their smart phone or tablets, whatever,
18 using this, does the app. work together with the GPS
19 technology to automatically fill in these latitude and
20 longitude blanks?

21 A. Yes.

22 Q. Correct?

23 A. Correct. Yes.

24 Q. Okay. So the person in the field, the
25 inspector in the field, doesn't actually need to write
26 down those long numbers?

1 A. Right. Yes. If the collector app. is working,
2 they don't fill out this form. They enter all the
3 information into the app., but the geolocated location of
4 the lat and long is automatically determined by the
5 device.

6 Q. Let's move down to the next one, "Structure
7 Status."

8 A. Yes.

9 Q. What is this for?

10 A. So it determines the damage level of the
11 structure. So superficial, or what we call affected,
12 affected minor, major, and destroyed. And we use the
13 FEMA Damage Level Classification or damage categories.
14 So we're mirroring what FEMA does. So they have affected
15 minor, major, and destroyed. So we determine the level
16 of damage and -- based on their definition, FEMA's
17 definition, and some examples that they provide in a
18 manual they produce called the Damage Assessment
19 Operations Manual.

20 Q. So are the inspectors, is part of their
21 training to qualify them to be inspectors, are they
22 trained in using these terms in how to determine the
23 level of damage?

24 A. Yes, they are.

25 Q. And that's from the FEMA manual?

26 A. Yes.

1 Q. Why is it important for you as fire prevention
2 to document the status information as regards to the
3 level of damage?

4 A. Well, it ties back to us trying to look at the
5 Public Resources Codes and whether we can recommend
6 meaningful changes to reduce the number of structures
7 that are being impacted by these fires.

8 So, for example, just analyzing some of the
9 data, 93 percent of all structures that catch fire are
10 going to be completely destroyed.

11 The next biggest category is the affected
12 category, and that's roughly 4 percent of structures are
13 in that category. And that's superficial minor damage --
14 or superficial damage that is mostly cosmetic: Scorched
15 paint, maybe a burn mark in a deck. Or some windows --
16 most of the dual pane windows now are vinyl and they'll
17 melt. The outer aesthetic pieces that help hide the
18 internal framing will melt relatively easily. That's
19 mostly cosmetic damage. And that's either put out in the
20 structure protected by the property owner, typically, or
21 the fire department.

22 Once it gets beyond the affected category and
23 the structure is heading into the minor or major
24 categories of damage, there is typically less that the
25 fire department or property owner can do to protect or
26 defend the house at that point. That's why everything

1 jumps up to 93 percent of the homes are destroyed in a
2 fire once they catch fire.

3 Q. Next we have, "Where did the fire start on the
4 structure?"

5 A. That's if in the affected category, because
6 when the damage level gets into the minor, major,
7 destroyed, it's almost impossible for us to determine
8 where the fire started on the structure. But when it's
9 in the affected category, then we have a better chance of
10 determining that. And that could help us pinpoint some
11 areas that we may need to work on with the code of, okay,
12 if we're having continual problems with decks catching
13 fire, then okay, we need to look at decks, why are they
14 catching fire, as an example.

15 Q. So that provides information that you can use
16 for future fire prevention?

17 A. Correct.

18 Q. And mitigation efforts?

19 A. Correct.

20 Q. "What started the fire, if affected 1 to 9
21 percent," why is that important?

22 A. There's three ways that fires typically start
23 on a house. Either for -- there's continuous fuel right
24 up to the structure. So the fire just burns right up to
25 it and then there's something flammable on that side of
26 the house, then it will catch fire.

1 And then the second way is a radiant heat. So
2 if there's enough fuel close enough to the house and that
3 fuel is burning and that heat's given off, radiant heat's
4 given off, can heat the house or a flammable component to
5 its ignition temperature, then it will start the house on
6 fire.

7 And the third and most prevalent way that
8 structures catch fire are from embers. Fire brands are
9 embers, interchangeable term. It's fuel that's caught
10 fire a distance away. And typically with wildland fires
11 there's a wind component to them, so the wind picks up
12 these embers and sends them downwind. And whatever is in
13 its path, these embers can catch.

14 Just if you look at a house like where leaves
15 and pine needles and stuff accumulate on a house, that's
16 typically where embers will also accumulate. So, you
17 know, they typically, if the homeowner isn't diligent
18 about taking care of those areas where leaves and needles
19 and stuff will accumulate, then the embers will hit those
20 areas, and that's fine fuel enough for an ember to catch
21 those fuels on fire, and then catch the home on fire. Or
22 the embers will typically go through a vent in the house.
23 If there's enough of a gap in the mesh screen for embers
24 to enter, they'll enter into the vents, find something
25 flammable on the inside and burn from the inside out.

26 Q. So with regard to this category, when we're

1 talking about what started the fire, we're simply talking
2 about that one structure; correct?

3 A. Correct.

4 Q. Not the overall --

5 A. Not the cause of the incident, what caused the
6 fire on that particular structure.

7 Q. Right.

8 A. Was it the fire burning up to it, was it
9 radiant heat, or was it embers.

10 Q. So, for instance, with the Camp Fire we've got
11 over 13,000 structures. It all started from one --

12 A. One.

13 Q. -- one place up above Pulga and then burned
14 down. That caused all of these fires. But when you're
15 saying what started the fire for this particular house
16 that the inspector is looking at, you're talking about
17 how the Camp Fire itself hit the house or affected the
18 house?

19 A. That's correct.

20 Q. All right. Next, "Structure Defense Actions
21 Taken by."

22 A. So we have a number of things that we're
23 looking at there. Was anyone there to defend the house?
24 Was the property owner there, and did they try to attempt
25 to defend their house? Or was the fire department there;
26 fire engine or a bulldozer maybe came there and put a

1 line around the house and defended it? Or maybe an air
2 tanker dropped retardant on the house to try and defend
3 it? We're just trying to look at, you know, how many
4 homes are defended against the fire and which ways were
5 they defended and try and build some statistics.

6 Q. Next up, I'm assuming this is going to be an
7 important one, the "Estimated Vegetation Clearance"?

8 A. Yeah. And it is difficult after a fire's
9 burned through to kind of reconstruct what the vegetation
10 was like prior to the fire starting and burning through
11 the area. So this ties back to looking at our defensible
12 space law, 4291, and the hundred feet of defensible
13 space. So we're looking to try and identify the best we
14 can. And we train our inspectors during our damage
15 inspection class as to what indicators to look for as to
16 how much defensible space they had or clearance they had
17 around, around the structure.

18 Q. Next, "Distance of Propane Tank to the
19 Structure." Why is that important?

20 A. That is in our Building Code Chapter 7A about
21 clearance -- or distance from the propane tank to a
22 structure. So this would tie into more of the radiant
23 heat aspect of propane tank ignites because of the main
24 fire, is venting, it gets heated up, so the relief valve
25 releases, vents the propane out of the tank, the fire
26 catches the propane on fire, now you have a propane tank

1 that's near a house that's has a lot of fire coming out
2 of it. And if it's close to the house and the wind's
3 blowing that fire, leaning it over, it can heat the house
4 up and catch fire. So we're trying to determine if
5 there's certain minimum distances we should recommend or
6 require that propane tanks be away from a house.

7 Q. Now, the next two let's deal with together.
8 "Topography" and "Aspect of the Land to the Structure."
9 Explain to us what those mean and why those are
10 important.

11 A. So topography is the lay of the land. And
12 there's certain areas of topography, like chutes or
13 chimneys, saddles, ridges, flat land that, that are more
14 prone for fire to burn hotter in them.

15 So, for example, if a house is in a -- have two
16 peaks, then there's a little valley between the two peaks
17 that's called a saddle. And if a house or structure is
18 in that saddle, the fire is going to funnel right to that
19 location. So we're trying to determine if, the location
20 of these homes, if we should make a recommendation as to,
21 you know, you shouldn't build a home in saddle or at the
22 top of a chimney where a fire is going to race up that
23 what we call a "chimney." It's two ridge lines, and then
24 like a low point between the two ridge lines where water
25 would typically run down through. That's what we call a
26 chimney. So fire is going to race, burn hotter in that

1 area than it would on a ridge line.

2 So that's what we're looking at. I can't
3 remember exactly -- we have I think ridge, saddle, I
4 can't remember the other.

5 Q. Slope?

6 A. Slope, yeah.

7 Q. All right. Then aspect?

8 A. Then aspect is cardinal direction; north,
9 south, east, west.

10 So southwest aspects typically have dryer
11 locations. They get more direct sunlight during the
12 summer months. So their soil is usually not as deep.
13 The vegetation that grows in those locations is more
14 brush and less trees. Trees usually grow better in, on
15 north aspects where there's deeper soil, more moisture,
16 and so forth.

17 So, again, we're just trying to look at is
18 there certain aspects that homes shouldn't be built on or
19 if they're built in those locations should they have a
20 greater level of defensible space around them than other
21 aspects.

22 Q. All right. The next section is called
23 "Structure Type." Go ahead.

24 A. This is related solely to our California
25 Building Code Chapter 7A, the Wildland Building
26 Standards. And so it looks at roof components: What is

1 the roof constructed out of? Is it fire-resistant
2 material or not fire-resistant, like the older sometime
3 wood shake roofs?

4 Siding. What type of siding did the structure
5 have? Is it fire-resistant or not?

6 What type of windows did it have? Are they
7 single pane or dual pane?

8 What type of -- did it have a deck on, attached
9 to the structure? And if so, what type of deck? Was it
10 a wood deck? Was it concrete? Was it synthetic
11 material?

12 Eaves. Were there eaves or no eaves present on
13 the house?

14 Vents. What type of vents did it have? Were
15 they -- or let me back up to the eaves.

16 Did it have eaves and were they open eaves or
17 were they enclosed eaves? So that -- the open eaves are
18 on, typical on your older-style homes that have a vent in
19 the fire blocking between the two rafter -- rafters that
20 come out of the roof. And then enclosed eaves would
21 typically be flat or horizontal to the ground, leading
22 directly over to the structure. And they're enclosed, so
23 they're a little more fire-resistant than open eaves are.

24 Q. Okay. Let me interrupt you before we go on to
25 that because I think you're getting into the next page.
26 We'll put that up in just a second.

1 A. Okay.

2 Q. One of the things I wanted to ask you about is
3 there's a term in here we talked about, "habitable" or
4 "nonhabitable" structures; correct?

5 A. Yes.

6 Q. Can you explain the difference?

7 A. So a habitable structure is meant for human
8 occupancy. So it has typical features like a bedroom,
9 bathroom, kitchen, heating, water supply to it. And
10 nonhabitable structures are those that don't have those
11 features, that aren't meant for continuous human
12 occupancy, like a garage or barn, other types of
13 structures that a property may have.

14 Q. Now, you have this structure type, we have
15 single-family residences -- or single residences;
16 correct?

17 A. Yes.

18 Q. The single-family home?

19 A. Correct.

20 Q. All the way up to mobile homes, potentially?

21 A. Correct.

22 Q. That would be included in that. Multiple
23 residences? Multi-family dwellings?

24 A. Multi-family dwellings; apartment buildings,
25 like that.

26 Q. Then we have mixed commercial residential,

1 nonresidential commercial. Do you have examples?

2 Church, hospital, school?

3 A. Yes.

4 Q. What is an other minor structure?

5 A. So other minor structures are structures that
6 are -- it's in our California Building Code. Structures
7 are identified by occupancy classifications. So these
8 other minor structures are called group U, or utility
9 miscellaneous structures. So they're like detached
10 garages, detached sheds or barns. Structures of that
11 nature.

12 Q. Now, your inspectors that are being sent out to
13 gather this data, they're given training in how to
14 determine the structure type?

15 A. Correct.

16 Q. One other point I wanted to make is when you're
17 talking about habitable or nonhabitable, you're simply
18 talking in a vacuum. Is this a structure that was
19 designed to be lived in as opposed to where we talk about
20 in the legal instructions, for instance, for 452, causing
21 a fire, unlawfully causing a fire, where it talks about
22 inhabited structures? It's a different thing; correct?

23 A. Correct. Yes. We only determine whether it's
24 meant for human occupancy. Doesn't matter to us if
25 somebody's actually living there at the time or not.

26 Q. Your people aren't going out and trying to make

1 a determination whether somebody was actually living in a
2 structure at the time of the fire; correct?

3 A. Correct. And, for the most part, when we're
4 out doing our damage inspection, the area has been
5 evacuated, so there's typically not a property owner
6 there, somebody we can even talk to.

7 Q. Now let's move on to page 2 of that document,
8 which is where you were starting to get to a minute ago
9 when I interrupted you.

10 A. Yes. Sorry about that.

11 Q. Which is "Construction Type"?

12 A. Yes. So we talked about roof construction
13 already, siding, eaves, windows, decks. And decks, we
14 look at on grade, which is basically -- this would be
15 elevated, a little platform right here would be
16 considered a deck on grade, if we were looking at a
17 structure. Elevated decks would be a deck that is built
18 on a second or subsequent higher floors, extending out
19 from the house. Or if the house is built on a hillside,
20 it could be on a lower floor, but just overhangs the
21 hillside, so it's not on the ground level.

22 We also look at attached -- I can't remember
23 the terminology now. Like carports. It's not like an
24 attached garage that's built as part of a home, this is
25 an attached carport that may or may not have sides to it.
26 So we're looking at the construction features to see if

1 that's becoming a habitual problem as to why maybe homes
2 are catching fire and burning down.

3 What else? "Fences" we have on there. We know
4 fences are an issue. Most fences are wood and they're
5 attached directly to homes. And in an incident wildland
6 fire, fence will catch fire and act kind of like a wick,
7 drawing the fire directly to a home. Then once it
8 reaches the house, if it catches -- if there's something
9 flammable right there where that fence is attached, and
10 that is a potential ignition for the home to catch fire.

11 So there's been studies and stuff done about
12 pretty much everything we're looking at to try and
13 determine if there's changes we can make to our Chapter
14 7A for the WUI Building Standards.

15 Q. How and why are these factors important to your
16 policy in statutory requirements to fire prevention?

17 A. So our fire marshal's office, our Code
18 Development Division within our fire marshal's office is
19 required to create and maintain this Chapter 7A. So this
20 is data that we gathered to help analyze that code and
21 see if there's changes we can make to increase a home's
22 chance of surviving a wildland fire.

23 Q. Would it be fair to say that the information
24 that was gathered by your inspectors in the Camp Fire
25 will be used to help make sure that when Paradise is
26 rebuilt, when Concow is rebuilt, that those houses will

1 be in a much better position to survive --

2 A. Correct.

3 Q. -- a future fire?

4 A. Correct.

5 Q. Next section, "Structures with no Damage"?

6 A. So that is something that we had wrestled with
7 internally. The fires that we're having today are so
8 large and damaging that documenting structures with no
9 damage is kind of a capacity issue. We always knew that
10 we should document the structures that didn't have any
11 damage within the fire perimeter, but how do we
12 logistically do that within a 150,000 acre fire with
13 thousands and thousands of structures? The Camp Fire
14 just so happened to be the first fire where we
15 implemented that. And we did document every structure
16 within the perimeter whether it had damage or not.

17 Q. Why is it important to document structures
18 without damage?

19 A. For the same reasons as it is to document those
20 with damage, to learn from them as to why they didn't
21 catch fire. What was so special about these structures
22 that prevented them from burning down? It may have been
23 that they were defended by the fire department or the
24 property owner. It may have been that they had certain,
25 they were built to our Chapter 7A, and even though they
26 took a hit from the fire, just like a lot of the

1 structures that were damaged, that are destroyed, the
2 home itself was able to survive because of how it was
3 constructed.

4 Q. So like recently I know one of the things we've
5 been seeing in the local media is discussion of pre- and
6 post-2008 houses and their survivability --

7 A. Yep.

8 Q. -- during the Camp Fire.

9 A. Yes. All the reports that have been coming out
10 on the news, that's data that we gathered. They're
11 getting that from our data. We've been -- our department
12 is subject to the Public Records Act Request. And so if
13 -- the *San Francisco Chronicle*, who just ran an article
14 on Sunday or Monday, they took our damage inspection data
15 from the Camp Fire and produced that report. *Sacramento*
16 *Bee* recently did one as well, looking at our data and
17 tying it back to 2008 when our building code standard
18 went into effect.

19 Q. Finally, down here on the bottom, "Photo Name
20 ID from the Mobile Device Metadata"?

21 A. So we take at least one picture of every
22 structure that's damaged or destroyed. We did not go to
23 the extent on the Camp Fire taking pictures of the
24 no-damaged structures. We do take a picture of every
25 damaged or destroyed structure. Sometimes on the non --
26 or the affected minor and major structures, if the

1 damage, if you look at the -- we tell our, and teach them
2 in the class, our inspectors, to take the photograph from
3 the road, looking at the structure. So the front of the
4 structure. But if they take the photograph of the front
5 of the structure and the damage happens to be on the
6 backside and you can't see the damage from the front,
7 we'll have them take a picture of the front of the
8 structure, then walk around to the backside and take a
9 picture of the damage that occurred at that location.
10 There may be more than one photograph attached.

11 Q. So every time we have a wildfire that damages
12 structures, you're dispatching a team of inspectors to go
13 out and obtain all of this information; correct?

14 A. Correct.

15 Q. And those, they're all issued smart devices,
16 whether it's tablets or phones, and they collect all this
17 data?

18 A. That's correct.

19 Q. And all those people are public employees?

20 A. That's correct.

21 Q. And they're all -- this is a program that is
22 mandated both by statute and by policy of Cal Fire?

23 A. Correct.

24 Q. Sounds like it's a massive undertaking in a
25 fire such as the Camp Fire?

26 A. Yes, it is.

1 Q. Can you go through a little bit of logistics as
2 to how it is that, that you go out and you search almost
3 19,000 structures?

4 A. So I mentioned earlier there's, it's a
5 three-position job classifications that comprise our
6 damage inspection process on any incident.

7 So there's a, the damage inspection manager,
8 and typically we'll have at least two on any incident to
9 manage the whole process. When you get a fire that we've
10 been having lately, like the Camp Fire, we assign one of
11 our Incident Management Teams to manage the overall
12 incident. And this damage inspection process resides
13 within that Incident Management Team in the Plans
14 Section, and then we utilize the Incident Command System.

15 So the Plan Section, within it is a Situation
16 Unit, and within the Situation Unit is the damage
17 inspection process. So we have two managers. Typically
18 one manages organizing the Damage Inspection Teams,
19 making them up into teams of two, telling them where
20 they're going to go out and inspect and work for the day,
21 making sure that the ESRI collector app. is functioning,
22 that their device is set up and properly working, that
23 they have all the information, things that they need to
24 go out and into the field and do their job successfully.

25 Typically, the other manager will work with the
26 Incident Management Team to ensure that we have the

1 information that we're collecting that they can
2 disseminate through the public information officers.
3 They work with cooperating agencies. So in the Camp Fire
4 we worked with Butte County and the Town of Paradise to
5 ensure that they had access to our damage inspection data
6 for their use and needs.

7 And we also may have trainees. In the case of
8 the Camp Fire, we had one trainee that was as a qualified
9 inspector that's working to become a damage inspection
10 manager. So he performed as a trainee. And he works
11 under a person that -- or -- and he works under a
12 qualified manager. And there's a task book that they
13 sign off to become qualified.

14 Then the damage inspection specialists are
15 formed up into teams of two. And we typically will take
16 -- if we have someone that's relatively new, maybe just
17 recently took the class and this might be their first
18 assignment so they don't have generally any field
19 experience or limited field experience, we will team them
20 up with a more experienced person that's been there on
21 several incidents and performed the duties so that that
22 person can also work with the lesser-trained individual
23 and bring them up to speed.

24 We may assign additional personnel to our
25 teams. Sometimes building officials. The local county
26 will ask if their building officials can go out with our

1 teams and assess the status of the structure, whether
2 it's safe to reoccupy or not. We could have hazardous
3 material specialists that are part of the teams. Just
4 depends. Typically, it's just our team of two, but there
5 could be additional experts in there.

6 And we break the incident into what we call
7 zones. When you're looking at a 150,000 plus acre
8 incident, how do you logistically search that and not
9 miss anything that's out there? So we look at the
10 overall incident perimeter and then we look at the
11 concentration of damage. And we also look at the road
12 infrastructure and, you know, natural breaks in
13 topography, and we try and create zones that are
14 manageable, that we can put one or two teams into to
15 search a zone. And then once we confirm that that zone
16 has been entirely searched, then we will move them into a
17 different zone that doesn't have anyone in it. And we
18 just continue that process until the entire perimeter has
19 been searched.

20
21 (Grand Jury's Exhibit 134 was marked for identification.)
22

23 Q. Okay. Let's, let me move you right there to
24 Exhibit 134. Do you have that in front of you?

25 A. One second. Yes, I do.

26 Q. All right. I have that displayed up on the big

1 board published for the jurors.

2 A. Yes.

3 Q. What is 134?

4 A. 134, the red line is the fire perimeter of the
5 Camp Fire. And then the blue lines within it are our
6 zones. And we identify -- we'll name each zone.
7 Typically, it depends on the damage inspection manager as
8 to how they determine the naming convention for the
9 zones. And so in this case we have, we used M and then a
10 number after it for Magalia. We use C for Concow area.
11 We use P for Paradise. Except for Paradise was, with the
12 amount of structure damage that we had to look at, it may
13 be difficult to see on that map, but we broke it into a
14 lot of smaller areas just because of the amount of damage
15 that we had to go through. So the inspector, the
16 manager, decided to instead of calling Paradise all just
17 P like 1, 2, 3, he used a couple letters between M and P,
18 so N and O to break Paradise up into smaller groups. Or
19 zones. Excuse me, zones.

20 Q. So one of the things I have to ask is the red
21 is the footprint of the fire itself, we're all very
22 familiar that?

23 A. Right.

24 Q. The blue is defining your zones?

25 A. That's correct.

26 Q. But in some places we have blue outside of the

1 red?

2 A. Correct.

3 Q. Why is that?

4 A. So we will typically search a hundred meters
5 outside of the fire perimeter for damaged and destroyed
6 structures, because of embers. Embers will blow. We may
7 stop, physically stop the fire at one location, but an
8 ember might blow outside of that perimeter and could
9 catch a single structure on fire. So we will search a
10 hundred meters outside of the perimeter looking for
11 structures that were impacted.

12 And on this incident, I'm not aware of any
13 structures we found outside of the perimeter. On the
14 Tubbs Fire in Santa Rosa 2017, we did find a couple
15 structures impacted outside of the fire perimeter.

16 Q. So teams of two were sent out to each one of
17 these zones?

18 A. Correct. And there may be more than one team
19 put into a zone at a time. So we typically use what we
20 call right- or left-handed search. And we base that on
21 how we search a house in a structure fire for potentially
22 trapped victims.

23 So what that means is we'll tell them, "Okay,
24 your starting point is, is this location, and you will do
25 a right-handed search. So on that street that you drive
26 down or walk down, search everything on the right-hand

1 side. When you come to another street, make a right-hand
2 turn and search everything on the right-hand side of that
3 street."

4 So typically what that means is eventually
5 you'll keep, when you keep right-handed, you'll make your
6 way back around to the starting point. And the whole
7 goal is to try to not miss anything. I think I may have
8 mentioned earlier that we also have our inspectors carry
9 handheld GPS units and run a track log. So it's dropping
10 or drawing a line, geospatially drawing a line of
11 everywhere they went within the incident perimeter for
12 that day. Then we overlay that on a map and we can see
13 if there's areas or gaps we missed.

14 Q. So essentially the inspectors are doing a grid
15 search?

16 A. Correct.

17 Q. So we've got inspectors with smart devices with
18 the app. on them that are collecting all the information
19 that's in 135 from every structure within the blue
20 footprint of the fire, or blue footprint. What's done
21 with all that information?

22 A. So it's stored in one central database, and
23 which is the ESRI cloud. And anyone who has access to
24 that, that we've granted access to, can access that data.
25 So that's a limited number of people within our
26 department. And some -- we do share that data. Like we

1 gave the data to Butte County as well as the Town of
2 Paradise in this instance. So we will share the data
3 with any local jurisdiction that has authority in the
4 incident for their general record keeping. And they can
5 use it for other purposes. And we store that data
6 long-term as historical records of the incident
7 electronically.

8 Q. Do you do any kind of reports --

9 A. We do.

10 Q. -- after the incident?

11 A. Yes, we do, electronic report.

12 Q. Why is that?

13 A. It's to report on the information that we
14 gathered about the incident as far as damage inspection.

15
16 (Grand Jury's Exhibit 136 was marked for identification.)
17

18 Q. You have in front of you there Exhibit No. 136?
19 That should be the thumb drive.

20 A. Thumb drive. Okay.

21 Q. Do you recognize 136?

22 A. I do.

23 Q. What is 136?

24 A. So 136 is a thumb drive that contains our
25 Damage Inspection Report. And this instance the report
26 is so large that if we printed it it would be over four

1 case of paper. So it's an electronic copy at this point.
2 And it contains our report along with three exhibits that
3 are part of the report.

4 So the report has some general information
5 about our process that I've kind of explained to you.
6 And then it breaks down the structures that were damaged
7 and destroyed by the different damage categories as well
8 as structure type. And we did it on this instance by the
9 town of Paradise, those that are in Butte County, and
10 then for the overall instant -- incident. And then we
11 also have a chart that breaks down the construction
12 features of the structures that we gathered those
13 features on. And then we start to get into our exhibits.

14 So Exhibit A is a list of, it's like an Excel
15 spreadsheet that lists the site address of the structure,
16 the structure type. So was it a single-family dwelling?
17 Was it a commercial building? The percent of damage.
18 And the APN, the Assessor's Parcel Number. So that's
19 Exhibit A.

20 Then Exhibit B is maps of the incident. So
21 there's the fire perimeter map; there's fire history map
22 of the area; there's fire progression, how the fire
23 burned from day to day throughout the life of the
24 incident.

25 And then we get down into fire perimeter with
26 our damage located within that. So an overall map of the

1 incident with the damage. In this report we did not put
2 the damaged structures in there. We usually do. And
3 it's just because on an 8 1/2 by 11 piece of paper it
4 would just be a sea of red within the incident perimeter.

5 Q. Kind of like that?

6 A. Kind of like that, only it would have been
7 probably worse. So it's hard to differentiate, you know,
8 structures from each other.

9 Then we'll take the overall area and break it
10 down into very small parts to where we can actually see
11 the parcels and the structures located within the
12 parcels. So in this incident we had a number of other
13 maps within our appendix, Appendix B, that outlined the,
14 down to the parcel level of damage.

15 MR. NOEL: Madam Reporter, the "that" to which
16 we were referring to was Exhibit 105.

17 THE WITNESS: Then there's Appendix C, which is
18 the last component of the report, which is a single page
19 of each structure that we documented that had damage or
20 was destroyed. And it has all the features, the
21 attributes, the data that we physically input, as well as
22 the picture that we took, as well as a map of the overall
23 incident and location of that structure within the
24 overall incident. And then there's a second map that is
25 kind of a zoomed-in area that gets down to the parcel
26 level and shows that particular structure within that

1 general location.

2 Q. You brought that report with you today pursuant
3 to a subpoena issued --

4 A. I did.

5 Q. -- in the name of this Grand Jury?

6 A. I did.

7 Q. Produced it this morning?

8 A. Yes.

9 Q. Now, the report therein was authored by whom?

10 A. It was authored by the damage inspection
11 managers that were on the incident. So that was -- do
12 you want me to name their names?

13 Q. No. Just all Cal Fire personnel?

14 A. Cal Fire personnel, their damage inspection
15 managers, as well as the GIS specialist.

16 Q. That was based upon the information that was
17 obtained by the damage inspectors themselves?

18 A. That's correct.

19 Q. The information from the smart devices that
20 they were carrying with them, reporting the information
21 on 135?

22 A. That's correct.

23 Q. And all of that information was compiled, made
24 at the time that it was occurring; correct?

25 A. That's correct.

26 Q. The inspectors are out there inputting that

1 information, filling out that form in the field as
2 they're looking at each individual structure?

3 A. That's correct. Then at the end, when all the
4 structures have been documented, then that's when we
5 switch over and start working on the final report.

6 Q. And ultimately the final report is put together
7 by the, by the managers and then it goes where?

8 A. So it is left with, the electronic copy is left
9 with the local Cal Fire unit as part of their records
10 with the Incident Management Team that's assigned to the
11 incident. We also give a copy to the local jurisdictions
12 that had authority. So Butte County, Town of Paradise in
13 this case. And then we keep a copy in our -- I keep a
14 copy for historical records. And we're also often asked
15 through the Public Records Act Request, too, for copies
16 of that report. So we hand them over as we get those
17 requests.

18 Q. So as the, as the Deputy Chief in charge of
19 that unit, you're essentially in charge of keeping
20 historical record of the reports?

21 A. That's correct.

22 Q. So you have reports for all of the fires?

23 A. Yes.

24 Q. So Camp Fire from last year, every other fire
25 in which there was a structures -- wildfire which there
26 were structures damaged, which would include, like you

1 said, the Carr Fire, the Boles Fire, the Tubbs Fire,
2 Atlas Fire, the Delta Fire?

3 A. All of those, all of them that we have
4 jurisdiction on. So if it's a US Forest Service incident
5 that we don't have jurisdiction and it happens to burn
6 structures, then, then more than likely there won't be
7 any damage inspection done. They have a different
8 process.

9 Q. So, for instance, the Delta Fire which started
10 on federal lands last August up on Interstate 5, even
11 though it burned in the state responsibility areas and
12 burned structures, you wouldn't have a report on that
13 fire?

14 A. We do have a report on that fire. If it
15 impacts our responsibility area, we will have a report.

16 Q. So you're the repository of all these reports?

17 A. I am.

18 Q. And you keep those reports, basically legally
19 required to, but also in the regular course of your
20 business?

21 A. Yes.

22 Q. All right. Now I want to go back real quickly,
23 then we'll get ready to take our break. We talked about
24 105. You have 105B in front of you. I mislabeled. You
25 have 105A and B?

26 A. I do.

1 Q. And do you recognize 105A and B?

2 A. I do.

3 Q. What are they?

4 A. So 105A is of the town of Paradise, the damage
5 inspection that we produced for the town of Paradise.
6 And then 105B is the same damage inspection data that we
7 produced for the Magalia area.

8 Q. On 105A and 105B, which are a little closer up
9 than 105, which essentially shows a red blob in the
10 middle of the -- 105A and B actually show individual
11 dots?

12 A. Correct.

13 Q. What do those individual dots represent?

14 A. So the individual dots are an individual
15 structure that is 120 square feet or greater. That's,
16 according to the Building Code, that's at the time that a
17 permit is required to build the building. And so those
18 are the ones that we concentrate on. Anything less than
19 120 square feet we do not document. So those are your,
20 typically your, less than 120 square feet would be your
21 Home Depot style sheds and stuff like that.

22 So the red is, it may be hard to see, but
23 they're down in the lower left corner next to the logos.
24 There's a legend down there. And so that's correct, the
25 red is destroyed structures; orange are major, structures
26 with major damage; yellow is structures with minor

1 damage; and green are structures that were in the
2 affected categories of cosmetic damage. And, again, this
3 is FEMA's, we adopted FEMA's damaged categories and
4 symbology. So that's their color scheme that they
5 developed.

6 Q. That tracks right along with the damage
7 inspection that's being done as part of 135, the
8 information from the app. that the inspectors are
9 gathering?

10 A. That's correct.

11 Q. So as you look through these, the red dots,
12 damaged or destroyed, all the way down to the black being
13 no --

14 A. Black is no damage, correct.

15 Q. And each one of these is an individual
16 structure?

17 A. Correct.

18 Q. Not necessarily habitable. It's not breaking
19 these down by inhabited residences versus commercial
20 structures, these are each just a structure?

21 A. Correct. A structure that's greater than 120
22 square feet.

23 Q. Okay.

24 That is all I have for this witness.

25 Madam Foreperson, if the jurors have any
26 questions?

1 Yes. Hold on. We've got to go through this,
2 remember? You collect them, then we have to go through
3 them and determine if they can be asked.

4 (Counsel and Grand Jury Foreperson confer.)

5 Q. (By MR. NOEL) Deputy Chief, we have a few
6 questions from the jurors.

7 A. Okay.

8 Q. First off, in your experience, have any damage
9 inspectors ever made up, lied about, or provided
10 fraudulent data on the fire damage app. or the worksheet?

11 A. Not that I'm aware of. We do have a process to
12 discipline people if we're made aware of instances like
13 that. But not that I'm aware of.

14 Q. Did you receive any Damage, Damage Inspection
15 Reports that indicated that any structures within the
16 Camp Fire area were caught on fire due to the failure of
17 electrical equipment attached to the structure?

18 A. Not that I'm aware of. Not that I'm aware of,
19 no.

20 Q. Did you receive any data that might indicate a
21 structure may have caught fire due to failure of electric
22 meters in the Camp Fire area?

23 A. No.

24 Q. Are there any standards or policies that would
25 determine which structures fire departments would defend
26 vis-a-vis any other structures in the area?

1 A. It's a lot up to the company officer of the
2 engine company as to what they feel they can defend or
3 not defend, and has to do a lot with a fire intensity at
4 the time and where the location of the structure is at.
5 If it's -- like I mentioned earlier, fire burns more
6 intensely in chutes and chimneys and through saddles and
7 stuff. So if the home is in a bad location, the company
8 officer may choose to not defend that structure as
9 putting the firefighters in too much of harm's way.

10 So there are some methodology that the company
11 officers would use to determine which structures to
12 defend and what not to defend. I know on the Camp Fire
13 the priority was life safety. So evacuations. So the
14 majority of the effort was put into evacuating personnel,
15 then defending structures.

16 Q. Now, following up on that question, isn't one
17 of the big considerations to the company officers the
18 defensible space?

19 A. Correct.

20 Q. So somebody who has maintained defensible
21 space, kept their area clean, their roof clean, like you
22 said, that doesn't create a hazard for the firefighters
23 and gives them a chance to defend, as opposed to you
24 haven't done anything, you've got weeds growing right up
25 against, you got trees all over, your roof's covered with
26 pine needles and leaves?

1 A. They have to make some tough decisions as to
2 what they feel that they can defend; and also, more
3 importantly, being safe for themselves while they're in
4 there at the structure trying to defend it. So
5 defensible space is one of those components that they
6 look at. If a home has defensible space, then it's a
7 higher chance that the home would survive with some
8 intervention by the fire department. So that is one,
9 definitely a thing that they consider whether to defend
10 or not.

11 Q. What is the average length of time for an
12 inspector to complete an inspection report in the field?

13 A. So they have to locate the house, and it
14 depends if they're, homes are tightly packed together or
15 if they're really spread out and they have to drive, you
16 know, or walk to the homes potentially. While they're at
17 the site, they do a 360 around the house just to
18 determine the extent of damage, the construction
19 features, and so forth. Then they will stand at one
20 location and enter the information in the app. and mark
21 the location on the map. So the average length of time
22 is about 15 minutes.

23 Q. How long does it take generally from when a
24 fire such as the Camp Fire starts and when you initiate
25 the damage inspection?

26 A. So when we -- I try to, being the program

1 manager, listen to when and where fires are starting
2 throughout the summer. And if I get a report, our
3 department internally produces some, we call them ROCs,
4 Reports on Conditions, and they come out through the
5 department, "Okay, we have a fire at this location." And
6 if it looks like there's structures, if they put a bullet
7 point in there, there's structures threatened or
8 structures that have burned, then I'll make contact with
9 the local Cal Fire unit or, or the Incident Management
10 Team, if one has been assigned, and start working on
11 assigning damage inspection personnel to that incident.
12 So I like to get the personnel assigned as quickly as
13 possible so that they can get to the incident and start
14 their data collection.

15 Q. So during the Camp Fire you actually had Damage
16 Inspection Teams out inspecting burned parts while the
17 fire was still burning in other locations?

18 A. Correct. We don't have any teams in active
19 fire areas, because a lot of them aren't experienced
20 firefighters. They're trained as firefighters, but they
21 may not have a lot of experience. So there's no
22 expectation that we're there -- see a house catch fire
23 and we're there documenting immediately. We put them in
24 locations where the fire has already burned through, then
25 they go property to property inspecting.

26 Q. Final question: How many Damage Inspection

1 Teams were used in the Camp Fire?

2 A. Twenty.

3 Q. Thank you.

4 Anything further?

5 Seeing none, Madam Foreperson, the
6 admonishment.

7 GRAND JURY FOREPERSON: Okay. Deputy Chief
8 Hawks, you are admonished not to discuss or disclose at
9 any time outside of the jury room the questions that have
10 been asked of you or your, or your answers until
11 authorized by the Grand Jury or the Court. A violation
12 of these instructions on your part may be the basis for a
13 charge against you for contempt of court. This does not
14 preclude you from discussing your legal rights with your
15 own attorney.

16 Deputy Chief Hawks, what I have just said is a
17 warning not a discuss this case with anyone except the
18 Court, your lawyer, or the district attorney.

19 THE WITNESS: I understand.

20 GRAND JURY FOREPERSON: Thank you.

21 MR. NOEL: And the important admonishment,
22 leave all the exhibits.

23 GRAND JURY FOREPERSON: Yes.

24 MR. NOEL: And you're done.

25 This is a good time to take a recess.

26 (Break taken.)

1 MS. RICHARDS: Ready to go on the record?
2 We're back on the record after our morning
3 break. We're going to be calling the next witness,
4 (WITNESS #20).
5 (GRAND JURY FOREPERSON swears in the witness.)
6
7 (WITNESS #20)
8 having been called as a witness in
9 the matter now pending, having been first
10 duly sworn, testifies as follows:
11
12 THE WITNESS: I do.
13 GRAND JURY FOREPERSON: Have a seat.
14 THE WITNESS: Thank you.
15
16 EXAMINATION
17
18 BY MS. RICHARDS
19 Q. Good morning, (WITNESS #20).
20 A. Good morning.
21 Q. Can you please state your full name for the
22 record.
23 A. (WITNESS #20).
24 Q. And are you currently employed?
25 A. No.
26 Q. Are you retired?

1 A. Yes.

2 Q. And who was your last employer?

3 A. PG&E.

4 Q. How long did you work for PG&E?

5 A. Right around 34 years.

6 Q. All right. I'm going to have you go back to

7 the beginning of your employment with PG&E. What was

8 your initial position at PG&E 34 years ago?

9 A. I got hired in as a laborer helper

10 classification, beginning level.

11 Q. And what were your duties as a helper?

12 A. Basically installing underground utilities.

13 Q. What kind of utilities did you install?

14 A. Gas -- gas line, PVC pipe, anything related to

15 what we were putting in for a customer, future service.

16 Q. And over the 34 years that you worked for PG&E,

17 did you work in various different positions?

18 A. Yes.

19 Q. Did you work for positions within the gas

20 industry?

21 A. That's where I started in, gas, yes.

22 Q. And then did you later go on to work in

23 positions in other areas of PG&E?

24 A. Correct.

25 Q. What other areas did you work in?

26 A. I got a position as an apprentice lineman, so

1 it's line of progression.

2 Q. And was that within gas or another division?

3 A. That's from gas to electric, same company.

4 Q. Okay. And was it -- within electric, was it on
5 the transmission or distribution side or some other side?

6 A. You start out where I started out, was in the
7 distribution side.

8 Q. How, approximately how many years did you work
9 in the distribution side?

10 A. Well, let's see, ended my career in the
11 transmission department, so -- after 34, so I was over
12 there 28 to 29 years total in distribution.

13 Q. And did there come a time where you started to
14 work on the transmission side of electrical operation?

15 A. Correct.

16 Q. Okay. And approximately when did you start
17 working on the transmission side?

18 A. And that was, again, a bid job. It's a line of
19 progression within my progression. And I got that bid,
20 transferred in 2010.

21 Q. And so when you say "a bid job," can you
22 explain what you mean by that?

23 A. Yeah. It's just like you asked me how I
24 started. So what it is with PG&E, like many companies,
25 but especially with a utility, there's lot of different
26 what they call "lines of progression." So you're not --

1 they encourage that you don't stay. It's like somebody
2 on a minimum wage job; you're not going to stay at that
3 job hopefully for too many years. So within the company
4 you're allowed to submit the bid. It generally goes by
5 seniority and what you're applying for.

6 Q. Okay. And so you, you submitted a bid and you
7 got a new position in transmissions?

8 A. Correct.

9 Q. Okay. And do -- when approximately did you
10 start working in transmissions?

11 A. In 2010, but it was, it was I think around
12 September. The way it works is they wait for an opening.
13 You can get an award, but they wait for a body to move
14 out before you can move in type scenario. So I actually
15 got awarded the job I think around July and then I was
16 over, sent over there in September.

17 Q. Okay. So you started in September 2010. What
18 was your position, what was that new position within
19 transmission?

20 A. At that time, it was called a transmission
21 troubleman.

22 Q. And how long did you serve in the position as
23 transmission troubleman?

24 A. Around 33, 33 months. So not quite three
25 years.

26 Q. So that took you, took you until approximately

1 the middle of 2013?

2 A. I had put in my retirement papers, so basically
3 I was done with what I was supposed to be doing in my
4 position probably around February of 2013.

5 Q. Okay. So I'm going to ask you a little bit
6 about your duties as a transmission troubleman. What was
7 your main duties as a transmission troubleman?

8 A. Well, as you can tell by the title, trouble,
9 right? So what happens is in that department it's very
10 critical because that's the backbone of the company, you
11 don't have the distribution without the transmission.

12 So basically a troubleman has a truck, and you
13 can have -- in this country you can have a quad so you
14 can offload and go, further patrol the lines. And you do
15 air patrols and foot patrols. So basically that's what
16 you're doing, you're looking for any potential --
17 there's always something out there, you know, in
18 environment, and that's what we're looking for. And many
19 times you find nothing, but you're looking for those
20 things. Could be a rock slide, trees, birds, nests. So
21 basically that's what you're doing, you're looking for
22 trouble.

23 Q. Okay. Were you, in your position, were you
24 always looking for trouble or did you, or would somebody
25 indicate, indicate to you that there might be a problem
26 and then you need to go --

1 A. That's correct.

2 Q. -- find it?

3 A. In other words, you have your basic work. And
4 then the way the system is, there's a lot of sensors that
5 are built into that. And if there's a hit on that line
6 -- when I say a "hit," in the department that they're
7 controlling the operation, it's a big board panel, and
8 you have lights and alarms -- they can send you in a
9 specific direction that you need to go. So you don't
10 have to go out and drive 30 miles of a 40 mile line.
11 They can pretty much pinpoint it. And so that's where
12 that group helps with the support. So it isn't just
13 going and looking for trouble, it is when there is
14 something that actually happens and they sense it, then
15 you go out and you look and you try to find that.

16 Q. Okay. So when you would hear that there was a
17 hit on the line, what would you do?

18 A. What I just explained, you go ahead and
19 basically you're getting a call, either the supervisor
20 would call you -- many times those happened after hours
21 -- and then you go in and you'd either talk to GCC,
22 somebody -- you always have communication with somebody.

23 Q. Let me stop you there. What's GCC?

24 A. They're the control center. Just like in a
25 refinery, you have your board and everything, and you
26 have valves, buttons, alarms. That's what that does.

1 They're sitting in there and they see this. It's like a
2 map. And the lines, based on voltage, have different
3 colors. But they get these alarms, and then they have to
4 do that so they can send you in the right direction.

5 Q. Okay. Let me ask you -- I should have asked
6 you this earlier, but when you were a troubleman from
7 September 2010 through beginning of 2013, what location
8 of PG&E did you work out of?

9 A. Right here in the Cottonwood substation was my
10 base.

11 Q. Okay.

12 A. That's off Table Mountain. So people familiar
13 with Table Mountain? It's just down the road.

14 Q. Did you work on the Caribou-Palermo 115 kV
15 line?

16 A. That was part of my job duties, yes.

17 Q. Did you also work on other lines as well?

18 A. Yes.

19 Q. I'm going to ask you about a specific incident
20 where there was trouble on the line. Did you ever have
21 an occasion to investigate a tower collapse on the
22 Caribou-Palermo line?

23 A. Yes.

24 Q. And when did that occur?

25 A. You know, I can't really be sure because I've
26 been out of there for -- but it was around 2011 or 2012.

1 I do know that we had more snow in 2012 than we did in
2 2011. So I believe -- I just, I feel bad that I can't
3 give you the exactual year. But I think it was probably
4 2012. We had unusual snow that came in.

5 Q. And how did you first learn that there was a
6 problem on the line that day?

7 A. I believe as you're out running around, and the
8 way the weather was, I believe I got a call from my
9 supervisor. Well, there's a couple different
10 supervisors, but he was kind of like the director now, so
11 I actually got a call from him.

12 Q. And after you received that call, what did you
13 do next?

14 A. Well, then you start looking.

15 Q. Okay. And where did you look?

16 A. Well, this was -- the line that you're
17 referring to, which was the Caribou-Palermo, and I'm on
18 the east side of Feather River, so everything was on the
19 west side. So there was a lot of back and forth. So
20 that's where -- I was actually on Highway 70 at the time,
21 one of the few areas where you could actually get cell
22 reception. So then I had to turn around and go back.
23 And then you go and you get up into the area on the
24 right-of-way. And then sometimes you have to offload.
25 And in that particular day, I was able to offload my quad
26 and go and patrol the line.

1 Q. Okay. When you say "offload," you mean you're
2 taking your quad off your truck and you're --

3 A. Yes.

4 Q. -- driving the quad?

5 A. Right.

6 Q. Why would you do that?

7 A. Well, because the truck I have, four-wheel,
8 it's not going to get you where you need to go.

9 Q. Okay.

10 A. Because the conditions were pretty bad that
11 day.

12 Q. What were the conditions like that day?

13 A. It was really, you know, cold. And it was
14 intermittent rain. And there was some icy spots. And
15 you could actually look up there onto the foothills and
16 you could actually see a little bit of snow.

17 Q. When you went out looking for the problem on
18 the line, did you eventually find it?

19 A. Oh, you bet.

20 Q. Okay. What did you see?

21 A. Well, the wires were down. And at that time,
22 though, you can't access all the way, you would have had
23 to have gone on foot. So once I saw the wire down, which
24 is a big conductor, transmission is big stuff, so right
25 away I just know I got to start mobilizing. You know,
26 you call the supervisors, let them know what you've got,

1 then say, "Hey, you got to start mobilizing crews, we
2 have got to get this stuff fixed." Everything, it was a
3 mess.

4 Q. Who was your supervisor at that time?

5 A. Well, like I say, I believe (EMPLOYEE #3) was
6 my supervisor when I started over there. And then he was
7 gone quite a bit, which is not abnormal. And I think he
8 moved into the director or assisting the director. So
9 probably (WITNESS #12) was the actual supervisor at that
10 time.

11 Q. And you said that the, there was a wire down.
12 Could you see why the wire was down when you --

13 A. You know, I really -- like I had mentioned, we
14 got a lot of trees, a lot of tree conditions in there,
15 and I do know that as I was offloading and heading in, I
16 heard chain saws and stuff going, which we didn't have
17 anything to do with it. PG&E didn't have them out there.
18 I think there's some people up in there that they might
19 have been hunting or four-wheeling. So they had actually
20 cut some trees. There were some trees down. But -- I
21 don't remember, I had to go beyond that point.

22 But once I saw what I saw, as a -- you don't
23 just stay there unless you make it safe. But I didn't
24 need to stay there, so my thing was to just make the call
25 and get everybody rolling, get everybody organized as
26 quick as you can, because you got to get that system back

1 up and running.

2 So I don't -- to answer your question, I don't
3 remember specifically. There were trees that were down,
4 but in conjunction with the snow, I never laid my eyes on
5 that because once I see what I got tower-wise, then it's
6 up to the guys to go in there and do what they got to do.

7 Q. Did you see any issues with any of the towers
8 themselves on the lines that day?

9 A. When you say -- be more specific, could you
10 please?

11 Q. Did you look at the trans, any of the
12 transmission towers on the line that day?

13 A. There was really no -- in other words, as
14 you're going in and they pinpoint, you know, the
15 structure, you're looking at the, there's numbers on
16 those towers, so there's no reason -- I mean, it's not
17 like I'm going to do my routine work. I'm getting in
18 there to where I find the problem. So I wasn't looking
19 at any specific towers except for the ones that were in
20 trouble.

21 Q. Okay. And when you say you saw some of the
22 towers that were in trouble, why do you say they were in
23 trouble?

24 A. Well, because they're downed. They're broken.

25 Q. Was the actual tower itself down or just the
26 line?

1 A. There were towers that were bent and broke.
2 But, like I said, I did not go -- there was no reason for
3 me to go all the way in there. Once you get the
4 coordinates and they get the plan and then they can see
5 what you're looking at, and they go ahead right there and
6 they can see, they can see everything.

7 In other words, if I -- if it wasn't such a
8 massive, catastrophic event that happened, then I would
9 have been more into a more detailed type of situation.
10 But once I saw that stuff, my job is to report it and
11 say, "Hey, get them mobilized and let's go."

12 Q. And how many towers did you see down that day?

13 A. You know, I didn't lay my eyes on all of them,
14 but I believe there was a total of four towers. I think
15 two that actually had buckled and broken and two that
16 were bent. The conductors, the wires, are very, very
17 heavy. So it's like a domino effect; if something
18 happens, it can affect the other one.

19 Q. Did you, were you able to come to any
20 conclusions that day about what had caused those towers
21 to fall?

22 A. You know, I don't really -- I know I had to do
23 my reporting or whatever, but it was basically, I believe
24 it was, it was the weather and the conditions and --
25 because there were trees that were down in there. But to
26 go all the way in there, it's not safe either even though

1 the line is de-energized. It's not safe for even a
2 qualified employee to be around there until you really
3 know that it's de-energized and grounded.

4 So I didn't actually lay my eyes, I didn't, I
5 didn't go any farther in there because it was just a
6 mess, and I couldn't go any farther in there until it was
7 safe to do so.

8 Q. Is it fair to say that on this particular
9 occasion your role was to find the problem and report it
10 but not to conduct the investigation into what had caused
11 the problem?

12 A. Right.

13 Q. Is that fair to say?

14 A. Yes. Because it was catastrophic. So we knew
15 that it wasn't a lightning strike, we knew that it wasn't
16 a bird. And birds do cause a lot of problems. But
17 there's a lot -- so it -- to me it was the weather
18 conditions, but I don't know what the final report, what
19 the final finding actually was. The crew, if there's
20 anything out of the ordinary, they're supposed to say
21 things like that for corporate security as well, to make
22 sure what are we dealing with here.

23 Q. And did you observe any of the repairs that
24 were done to the line after that happened?

25 A. No. I'm sorry. No, I got involved in the
26 switching. Which after they make repairs, and we have to

1 put temporary wood poles in many locations because it
2 takes too long to redo a tower. So I was involved in
3 switching with that.

4 Q. Okay. Let me ask you about the temporary
5 wooden poles. Did you put those temporary wooden poles
6 up?

7 A. No, that's not my function.

8 Q. Did you observe the poles that went up?

9 A. No. No.

10 Q. When you were involved in switching, did -- can
11 you explain what that entails?

12 A. Yeah. When the line's de-energized, just like
13 say for example that row of lights up there, you could
14 have a switch over here by the screen and that one switch
15 could shut off one side, one north or south or whatever.
16 So switching involves clearing a line so that you can do
17 your work or switching so you offload. Not the Razor,
18 but offload the load that's up there on the line. And
19 you shift it over to another circuit. So the switching
20 is the integral part of it because it has to be done in
21 coordination with everything. You can't go out there
22 like a light switch and dump it. Everything has to be
23 set up.

24 Q. Did you see the line when you were helping with
25 doing the switching?

26 A. Well, the parts that I see are right where I'm

1 working. Sometimes you have an apparatus piece of
2 equipment that you're asking if it's necessary to go
3 drive that out again. No, because they're already saying
4 that the work has been completed. So I didn't go back in
5 during the time I was there. I had to go into the areas
6 where I had to do the switching, but I did not go beyond
7 that.

8 Q. Okay.

9 A. I didn't have to.

10 Q. Did you ever see the large wood towers in
11 place?

12 A. Not, not wood towers. Wood pole.

13 Q. Sorry.

14 A. That's okay.

15 Q. Did you ever see the wooden poles in place?

16 A. Like I said, I believe there was five total,
17 going off of memory. Could be wrong. But I saw at least
18 three of those.

19 Q. Okay. And can you describe for the Grand Jury
20 what those look like? How tall they are, how wide they
21 are, to the best of your memory?

22 A. Well, my -- most folks here are probably
23 familiar with poles out in the distribution when you're
24 driving down the street, but these things -- just imagine
25 a really nice healthy redwood tree that's -- you can't
26 even put your arms around it. Because these things have

1 to support a tremendous amount of weight with the wire
2 and the conductor. The wood is supposed to be stronger,
3 I guess, per inch than steel. And they're massive. They
4 can anywhere -- we use poles anywhere from 80 to 110
5 feet tall. Because those towers up in that area were not
6 real tall towers, but what they do is they try to just
7 get it aligned, because everything is out of line. So
8 they try to get it as close as what it was. And it's
9 just a lot quicker to expedite, to get the facilities up
10 and running again. But they're massive wood poles, bare
11 of course, until you frame it and build it.

12 Q. And were those -- you said you, you retired
13 around February 2013. Were those poles still up on the
14 line?

15 A. Oh, yeah.

16 Q. At the time you retired?

17 A. Now, like it's been seven years I think in July
18 that I've actually seen that line, okay? So a lot of
19 things have happened. And we used to do what they call
20 -- there was a term "temporary-permanent," which isn't
21 out of the ordinary. In other words, as long as it's
22 working, functioning, doing what it needs to do, we're
23 not going to replace it until they either get the monies
24 or whatever.

25 So I have no idea whether those poles are still
26 there or if, in fact -- but that department was top of

1 the line. I mean, they didn't mess around. So -- and I
2 don't like to assume, but I would be thinking at this
3 time after six years that those towers are back in place.

4 Q. Okay. But as you sit here today, you don't
5 have any personal knowledge about whether those towers
6 were replaced?

7 A. No. When I left, I was done. I'm just that
8 kind of guy. I wanted to concentrate on other things. I
9 have five granddaughters that keep me pretty busy.

10 Q. I'm going to ask you now some more about some
11 of your other duties as a transmission troubleman.

12 When you weren't out in the field looking for
13 what had caused a hit, did you also perform inspections?

14 A. That's part of the job. Right. Inspections
15 refer to you're actually looking on the specific line.
16 You have documents, a folder. You just don't go out and
17 say tomorrow I'm going to go over here because I want to
18 have lunch over there. You have to follow the way the
19 procedures are outlined.

20 Q. All right. I am going to show you, in a
21 minute, one of the -- a packet that I believe you're
22 talking about. But before we get to that, I'm going to
23 have you -- actually, strike that.

24 I have a few questions for you, and then I'm
25 going to have you identify some parts on a picture, and
26 then we're going to talk a little bit more about an

1 inspection in detail.

2 So my first question is did you perform annual
3 overhead inspections for PG&E?

4 A. Yes.

5 Q. Yes. And can you describe what an overhead
6 inspection is, just generally.

7 A. Well, to do the overhead inspection, obviously
8 you're going to have to do it from above. So those are
9 generally air patrols.

10 Q. And at the time you were employed for PG&E,
11 were overhead inspections performed annually?

12 A. Yes. It's required.

13 Q. And when you say that's required, where do you
14 understand that to be -- where did you understand that to
15 be?

16 A. To be required?

17 Q. Yeah.

18 A. Well, I mean, the guidelines have been set
19 forth. And when I hired in in '79, there wasn't a lot of
20 helicopter patrols back then, but a lot of this comes
21 through because of the PUC.

22 Q. Did you have a manual that you used --

23 A. Yes.

24 Q. -- during your employment?

25 A. Yes.

26 Q. What was the name of that manual?

1 A. There was so many manuals. Basically it's like
2 -- we used to call it a Bible, but it's just, all it is
3 -- it's a thick manual, but it gives you references of
4 how you need to write something up if you don't know how
5 to write something up, if it's a particular -- it's
6 basically it's like a troubleshooting manual.

7 Q. Okay.

8 A. But I can't exactly remember the name of it. I
9 just can't.

10 Q. So you testified earlier you spent over 30
11 years working in distribution and then you -- basically,
12 it sounds like it was kind of like a promotion, you
13 promoted over to transmission?

14 A. It was a step up, yes.

15 Q. Did you have, did you get any additional
16 training on how to inspect transmission lines --

17 A. Absolutely.

18 Q. -- when you promoted?

19 A. Absolutely. You get -- just because you get
20 awarded a job -- I mean, you have to be able to prove, no
21 matter how old you are when you get it, but normally
22 you're not 70, we do have a few, you have to climb wood
23 and steel, you have to show that you're proficient, that
24 you can still do that. You have to do what they call
25 pull top tower rescues. You have to pass that. You have
26 to go to further schools, rigging schools, rigging which

1 I never was involved in in my earlier career.

2 Q. What is rigging?

3 A. That's when you're doing replacements of like
4 these pictures with bells or -- so rigging specifies the
5 equipment tools you need to do. And it was basically --
6 it's basic. Because I'm a troubleman, I could be
7 assigned to the crew as needed. And that's why you have
8 to pass those. And then you also have to qualify for
9 being able to fly in a helicopter. Not fly the
10 helicopter, but be able to not get air sick in the
11 helicopter.

12 Q. Okay. Is there any specific training for
13 spotting issues during an inspection that you received?

14 A. Yes, but because I actually had a troubleman
15 job in the division, you have that basic knowledge. And,
16 I mean, the bigger the stuff is the easier it is. The
17 smaller stuff is more like a bird's nest or say -- it
18 takes more time -- but the bigger the stuff is.

19 So you have that basic knowledge, because what
20 you did -- in other words, if you would have came from
21 say, an apprentice, they're not going to let an
22 apprentice go over there and take a transmission trouble
23 job. You got to meet prerequisites before you can even
24 think about it. But there is further training
25 constantly.

26

1 (Grand Jury's Exhibit 37A was marked for identification.)

2

3 Q. Okay. Let's see. I am going to show you --
4 it's actually in front of you, Grand Jury Exhibit 37A,
5 which is also on this overhead projector screen for the
6 Grand Jury. And you'll see that on this picture I have
7 numbered four different items -- A, B, C, and D. Do you
8 recognize the hardware in this picture as something that
9 you would have worked on or would have inspected when you
10 worked in transmissions for PG&E?

11 A. Now, because of the specific title, didn't work
12 on it.

13 Q. Okay.

14 A. I could be assigned to assist the crew. And I
15 was several times. But most of the time what I was doing
16 was the work on the ground. So they had the transmission
17 linemen up on those structures. But yes, I, I had to
18 assist. But as far as some of those parts, I was never
19 involved. And, I mean, normally if there's a problem, a
20 bulletin could be issued. And if they say, "Hey, we've
21 got to clear this, we've got to replace a thousand of
22 these things," nothing like that ever came through.

23 Q. Okay. Let me, so let me have you look at this
24 picture. Does this look like equipment that was on a lot
25 of transmission lines?

26 A. Correct.

1 Q. That you worked with or?

2 A. I've dealt with, but --

3 Q. That you dealt with?

4 A. I understand what you're saying, but, yeah --
5 yes, that's, that's basically what we have in the
6 transmission department to work with.

7 Q. Okay. So I'm going to ask you questions,
8 because I want to make sure that we're using the right
9 terminology here.

10 A. Sure.

11 Q. And you're our expert.

12 For the Grand Jury, he's not designated as an
13 expert today in the legal sense, but he knows more about
14 these transmission lines than anybody in this room.

15 So if you could look at A, I have it next to
16 this curved piece of hardware on Grand Jury Exhibit 37A,
17 what would you call that curved piece of hardware if you
18 were doing an inspection and you wanted to note something
19 about that?

20 A. That's just a bell hook. It's a dead end bell.
21 And it has to be dead ended somehow. So that is just a
22 part of that component. And it is separate from that
23 insulator. There's a pin in there. If you see just
24 below the tip of that hook, there's a little indentation
25 there, looks like a little spot or a shadow. There's
26 actually, in that area there's a pin. And you can pull

1 that. You could actually put another bell in front of
2 that. But the way this is, it's suspended, so that is
3 just a suspension bell hook.

4 Q. And you mentioned a suspension bell hook. Is
5 that what is next to where I wrote letter C?

6 A. Yes, that is the insulator, which I said it was
7 a bell. There's a lot of different terminology, but --
8 if you need me to be more specific, but that is basically
9 an insulated bell, insulator.

10 Q. Would you call this whole, this whole grouping
11 of different insulators an insulator string?

12 A. Yes. String, bell string. And depending on
13 the voltage of the line determines how many insulators
14 you need to have in there. The engineers, they figure
15 that out.

16 Q. On the, on a transmission line like the
17 Caribou-Palermo and 15K line, how many insulators would
18 you typically see in an insulator string?

19 A. You know, I can't, I can't give you that number
20 offhand because the higher the voltage, of course, you
21 need more insulation.

22 Q. Would you see more than five --

23 A. Oh, yeah.

24 Q. -- in a string?

25 A. You can see in the picture right there you've
26 got with the one almost cut off, I would say that's at

1 least I'd say ten in there.

2 Q. Okay.

3 A. At least.

4 Q. And are you familiar with how much weight that
5 would be?

6 A. They're heavy. Everything is designed, you
7 know, and engineered. But yeah, I mean, to take those
8 apart, there's not a whole lot of weight, but there's
9 some that are bigger based on, again, the higher the
10 voltage the more you need. So I would say that if you've
11 got ten of those in there, you're looking at probably 80
12 pounds' worth, 80 to a hundred pounds. Because there is
13 steel involved in there as well that adds to the weight.

14 Q. Okay. I'll have you look at the picture again.
15 That insulator string is attached to the hook that you
16 identified, and it's sitting in another piece of
17 hardware. Do you know -- what would you call that piece
18 of hardware with the hole that the hook is hanging in?

19 A. And, you know, I didn't get involved in that.
20 I mean, it's just what -- we dead end on that, how that
21 is done. So to me it's just a, I would just say it's
22 like a clevis. It's not really, but it's the way that
23 thing is designed. It's heavy, heavy steel. It's just a
24 dead end termination point on the arm of that tower. But
25 I don't know the correct, the correct name. There is a
26 name for it.

1 Q. Okay. Do you recall being trained on a name on
2 it during your training?

3 A. No, because like I said, if I was part of the
4 crew and then you go in and say, you talk to the clerk
5 and say, "I need 500 of these." But you have a book
6 also, because it's like everything else, so many
7 different things, you have to go in and be specific and
8 have different sizes. So you want to make sure you're
9 ordering it. I just didn't get involved in the parts
10 like that. Now I could say, "Hey, we've got 15
11 insulators that are broke on the voltage." Know what
12 that is. But as far as how they built -- they build
13 things differently, too. That changes quite a bit.

14 Q. Is it safe to say you didn't deal very much in
15 your inspections or in your job as troubleman with this
16 hardware that we're talking about?

17 A. Well, we are required to -- any attachment.
18 That's an attachment. So when -- if you can't get right
19 to it and you're using binoculars or you're flying it or,
20 you know, you've got to hike up to it, you've got to look
21 at it. You're supposed to look at every attachment that
22 has to do with the reliability and the continuity of the
23 service.

24 Q. Okay. One more question about -- actually, two
25 more questions about this picture.

26 Do you see D on this picture?

1 A. Yes.

2 Q. Okay. It's, it's right above this sort of arm
3 going out. What would you call that?

4 A. Are you -- you've got that pretty close to the
5 arm. So you weren't referring to the arm?

6 Q. I am referring to the arm. Is that what you
7 would also call it, an arm?

8 A. Yeah. It's a steel arm. Brace. A brace arm.
9 Those are like -- I don't know how many people are
10 familiar, but when we were kids -- I'm going way back,
11 dating myself -- but they used to have those little
12 ERECTOR sets, and everything was like lights, it was
13 metal, and you could use little nuts and bolts and
14 screws. That's kind of what they do out there, and the
15 stuff is tremendously strong.

16 Q. Okay. And one more question about this
17 picture. It might be hard to tell from this picture in
18 37A, but do the insulator strings usually hang straight
19 down plumb with the ground or are they curved?

20 A. No, it depends on the engineering of the job.
21 You could also have -- this is what I refer to as a
22 "suspension," because it's going down, so it's suspended
23 and holding. But we also have dead ends that are, you
24 know, they're parallel with the conductors. But you can
25 have this -- on the same line, you can have suspension
26 and parallel dead end. So it's not always the same. It

1 depends on the terrain and the configuration and how it's
2 designed.

3 Q. If you were doing an inspection, would you be,
4 would you note if you saw a hanging insulator string that
5 was not going straight down?

6 A. Absolutely. But if that was the case, as I
7 said earlier, the sensors that we have now in place that
8 have gotten better every year, they would almost be able
9 to pinpoint exactly where you would need to go with that.
10 That would definitely cause something. It could be an
11 outage, it could be a momentary. And a lot of times what
12 happened is the jumpers, that's the connectors, that are
13 involved in this, they would actually be holding that up.
14 And that's, that's not good.

15 Q. Okay.

16 A. So, yes, I'm sure they would know about that
17 with the sensitivity of the equipment.

18

19 (Grand Jury's Exhibit 137 was marked for identification.)

20

21 Q. Okay. I'm going to ask you a few questions now
22 about overhead inspections, which you've already talked a
23 little bit about. And I have in front of you another
24 exhibit, Exhibit 137, which we will refer to a little bit
25 while we talk about overhead inspections.

26 GRAND JUROR: We don't have those exhibits.

1 Should we? We don't have any of the exhibits.

2 MS. RICHARDS: For the Grand Jury, there's only
3 two exhibits -- three exhibits today we're going to go
4 through with this witness. And one of them is a bunch of
5 pages. Going to put the pages that we're talking about
6 on the overhead projector.

7 So before we get to Exhibit 137, let me ask you
8 some questions.

9 When you were doing your annual, an annual
10 overhead inspection, was this performed by a helicopter?

11 A. All of the work that is scheduled. In other
12 words, you don't do flying in certain times of the year
13 because of the weather, but there is times it needs to be
14 done, there's a deadline to get it done. But generally
15 we start out patrol using my truck or vehicle. You are
16 doing that without flying it. When it requires more
17 detail, then you get involved with the flying.

18 Q. Okay. So when you had an occasion to do an
19 overhead inspection, who would schedule that?

20 A. Our wonderful clerk.

21 Q. Okay. Who is the clerk while you were
22 employed?

23 A. That was (EMPLOYEE #17).

24 Q. Okay. And when you'd perform an overhead
25 inspection, what, what tools did you take with you in the
26 helicopter?

1 A. Basically you could take your laptop computer,
2 because you could actually -- nobody else can do that,
3 but you access it through the PG&E website, and it's like
4 flying a map, which is a good tool. Some pretty good
5 sites, powerful binoculars, and food.

6 Q. So during an overhead inspection, there would
7 be you and then a person flying the helicopter. Would
8 that be a PG&E employee?

9 A. I believe PG&E did have in the early, when they
10 first started, we had pilot, but everybody that I flew
11 with was not a PG&E employee. They were contracted out.

12 Q. Okay.

13 A. And you were not always by yourself, sometimes
14 you'd be somebody in back. But generally, I'd say 90, 90
15 percent of the time you flew by yourself.

16 Q. Okay. All right. So I am going -- I'm showing
17 you Grand Jury Exhibit 137. I'm going to zoom. You
18 should have a copy in front of you. It's that packet. I
19 think you have it in your hand right now.

20 A. Yes.

21 Q. Do you recognize the first page of this
22 exhibit? It says "Operation Control Ticket."

23 A. Yes, I do.

24 Q. Okay. And what document is this?

25 A. You want me to read what document it is? Well,
26 basically this is just a cover sheet.

1 Q. Okay.

2 A. Okay. And what (EMPLOYEE #17) did, very
3 efficient, very knowledgeable individual, this is
4 basically telling you the circuit, and it's -- with the
5 packet, and it's basically telling you the department,
6 and it tells you that it is an air patrol. So it's kind
7 of a more detailed specific cover sheet versus if you
8 open a binder just on a routine patrol. This is very
9 detailed.

10 Q. Okay. And did you have any part in creating
11 this first page?

12 A. No, I did not.

13 Q. Okay. I'm going to skip ahead to the next
14 page. I'm going to zoom out a little bit. Okay. We're
15 just going to move it around a little bit so the Grand
16 Jury can see.

17 We're looking now at the "Transmission Line
18 Inspection Data Sheet." Is this your name up here at the
19 top where it says "inspector name (WITNESS #20)"?

20 A. Yes, it is, but the handwriting is fairly neat,
21 so I do believe I had a good day that day when I wrote
22 that.

23 Q. Is this your handwriting?

24 A. It is.

25 Q. It is your --

26 A. That one is.

1 Q. Okay. It says "date inspection completed
2 8/6/12." Is that your handwriting, also?

3 A. You know, it's very neat, but that's definitely
4 my name there and then the date. But it's just -- with
5 (WITNESS #12), the supervisor, you asked me about
6 (WITNESS #12), "no problems found," this here, 8/6/12, I
7 may not have been actually there. There's different
8 times that I was off. But, in other words, this cannot
9 have a signature on it unless it's all verified and
10 completed.

11 Q. Okay. And where it says "no problems found,"
12 is that your handwriting in the middle of the page?

13 A. No, that is not. That is not.

14 Q. Then I'm going to go back up to the top. It
15 says, "miles inspected, 62. Number of structures
16 inspected, 445." Is that -- does that refer to the
17 entire Caribou-Palermo 115kV line?

18 A. That is correct.

19 Q. So there were 445 structures on that line that
20 you can remember?

21 A. That's correct.

22 Q. Okay. I'm going to move to the next page.

23 A. May I interject something here? Looking
24 through this far, I know -- if I'm going too far, then
25 stop me, but there is, my partner there, his name is also
26 on it. Because when you're not there, these have to be

1 done, they have to be completed whether it's me or the
2 next person. So it's not unusual the supervisor's going
3 off this information. So if you're, if you're concerned
4 because that is not my handwriting whether he has full,
5 he's within his rights to do that, he's not falsifying
6 anything here. This work is completed before he would
7 ever put his name on it.

8 Q. I'm going to ask you some more about the other
9 pages in the report.

10 A. I jumped a little bit ahead. I apologize.

11 Q. It's okay. I'll try to stop you if you --

12 A. Definitely.

13 Q. -- if you go sort of outside of the scope of
14 the questions.

15 Okay. So we are on the, it's the third page of
16 this exhibit, and it's -- has Bates number on it, PG&E
17 Camp Grand Jury 351. Do you recognize this document?
18 Looks like we have tables for "object codes," "damage
19 codes," and "cause of problem"?

20 A. Absolutely.

21 Q. Okay. And would you use this document during
22 your work?

23 A. That's what it's there for. Like you were
24 talking about a manual earlier, this is a quick-reference
25 sheet. And it has codes, so, so you can be specific.
26 Generally, this is, this is what's going to help you

1 right here, you know.

2 Q. So let's look at object codes. What do these
3 refer to?

4 A. Like I said, any of the detail, point of
5 attachments, anything on that line, they're pretty much
6 -- it's like it goes into detail. If you go down a
7 little farther, it says jumper, it says tree. So, in
8 other words, you're not scrambling around going through
9 some manual trying to find it. You have a
10 quick-reference sheet right here to, you can refer to
11 that, then input that information into your report.

12 Q. Okay. So when you're up in the air, do you
13 have this sheet with you?

14 A. Not always, because you're limited really with
15 what -- some of those helicopters are pretty small. And
16 normally I would leave -- me personally, I would leave my
17 booklet, because when you're following it on the computer
18 and then normally you have a note pad in front of you.

19 Q. Okay.

20 A. Then you also -- one thing I forgot. We had a
21 very good digital camera. I alluded to that. And we
22 also had a camera.

23 Q. Okay. So when you're up -- so imagine you're
24 up in the air and you are looking, you're completing your
25 inspection. What kinds of problems are you looking for
26 during an annual routine overhead inspection?

1 A. Pretty much everything that's listed there.

2 Q. Okay.

3 A. If that helps. You're not up there just to
4 look at the sites and scenery, you know. It's a great
5 job. You're not going as slow -- I want people to know
6 you're not flying at a tremendous speed, you're hovering,
7 but there is room for an error. In other words, I might
8 not see something and tomorrow the next person could be
9 up there and say, "Hey, (WITNESS #20), did you happen to
10 see this?" But it's very rare. That's why you can tell
11 him, "Hey, I saw something, then go back." And plus,
12 these have been looked at for years prior to anybody new
13 who has come over.

14 So you have a format. You have something to
15 look at. Has it been -- is that still there, the splice,
16 or has it been removed? So that's what you're doing,
17 you're trying to update, but find anything. Like that
18 tree. "Hey, there's a tree over there that wasn't like
19 that six months ago."

20 Q. Okay. So is it fair to say that you were
21 looking, you're looking at the towers and then you're
22 also updating the log with any problems that you found?

23 A. Absolutely. That's the whole deal.

24 Q. Okay. I'm going to move on.

25 A. But I'm glad you mentioned that, though. You
26 said "look at the tower," which is good, because when

1 you're also in the air flying, you're looking at those
2 four legs down there on that tower, on that structure,
3 you know, making sure there's no giant boulder up against
4 the leg or whatever. You're supposed to look at
5 everything that you could possibly see that could be a
6 problem.

7 Q. Let me have you look at page PG&E Camp Grand
8 Jury 356 in front of you. It says, "Transmission Line
9 Object List." Or do you see the document?

10 A. Yes.

11 Q. Is this the document that you would use during
12 your inspection?

13 A. Right. And you asked me, it's not necessary
14 that you actually have to take this up in the air with
15 you. As long as you're taking pictures of anything that
16 corresponds, then you go down with any of your notes and
17 you refer to this.

18 Q. Is this your name up in the top right corner?

19 A. It is.

20 Q. Is this your handwriting?

21 A. Yeah. Looks like I've signed my name three
22 different ways, but it is mine. I do do that. That is
23 mine.

24 Q. Do you recall whether you took this document up
25 in the, in the helicopter with you when you did this
26 August 2012 inspection?

1 A. I'm pretty sure I didn't. There's no reason to
2 take that up.

3 Q. Was it your usual practice not to take it?

4 A. Mine. You know, you develop -- like I said,
5 there's nowhere for your paperwork. I don't want to get
6 this damaged up in the air either. And I've actually had
7 papers fly out the window, get sucked out.

8 Q. Was your usual practice to make notes and
9 then --

10 A. Absolutely.

11 Q. Okay.

12 A. You have to -- if you go up there and you're
13 trying to do everything from your memory, you're going --
14 my boss and the co-worker, anybody that you're trying to
15 -- they're going to know that you did not do what you
16 were supposed to do. It has to be very detailed and
17 thorough.

18 Q. Did you have any kind of checklist for each
19 tower as you were flying over them?

20 A. That's what this is. So preflight you'd go in
21 here, if there was anything in here that said it's still
22 pending, there's dates on there, then you would write
23 that down, then you'd get over that specific structure.
24 And generally on that line it was all steel. So yes, you
25 would have advanced, you're supposed to have advance
26 knowledge of that.

1 Q. Okay. And I'm going to have you look at page
2 352. I'm also showing it to the Grand Jury. It looks
3 like --

4 A. I'm sorry, you said 352?

5 Q. Yes.

6 A. Okay. So we're backing up.

7 Q. We're backing up. Sorry. Going a little out
8 of order.

9 This appears to be an Excel spreadsheet. In
10 the first column says "Notification," then we have
11 "Order," "Required," and "Notification Date." And looks
12 like another column that says maybe "Notice," but it's
13 cut off, then "Planned," and then "Description," and then
14 "Functional Location," and then "Notes."

15 A. Correct.

16 Q. Do you recognize this document?

17 A. Yes, I do.

18 Q. Okay. What is this document?

19 A. Well, these are, these are things, these are
20 what we call "priors." There's -- everything that's
21 listed on there. If you go back and look at some of
22 those beginning dates, they predate me, they're back at
23 2009, 2005.

24 Q. And you called them "priors." What is a prior?

25 A. Like I said, when you have a creation of a tag,
26 if you're creating a tag. So somebody's already had a

1 prior creation of a tag of work that either needs to be
2 done or can be done, put out into the future.

3 Q. Do you know who created this document?

4 A. I don't know who designed it. I don't think
5 you're asking it, but this would, again, come from our
6 clerk.

7 Q. Okay.

8 A. (EMPLOYEE #17). (EMPLOYEE #17) puts the
9 packets together.

10 Q. Is this something that you would take up with
11 you in the helicopter?

12 A. These you generally should because -- you make
13 copies. You don't want to take any of the originals up.
14 Like I said, if they get damaged or destroyed. This --
15 what I used to do, and there's quite a few on this, I
16 used to just write it on my note pad. But that takes
17 extra time. So when you got this many, yes, you would
18 have that. You would need to have this with you.

19 Q. Is this your handwriting on the document where
20 it says, "Okay, NVE, 92913, and AP completed 215"?

21 A. That is correct. That looks like my
22 handwriting.

23 Q. What did you mean by writing that?

24 A. Abbreviation there, starts out with "Okay,"
25 okay to move. In other words, the job entails, a lot of
26 it, it's like anything -- I mean, you're saying that,

1 hey, this looks good enough to where we can -- work can't
2 all be done at once. There's just too much of it. It
3 has to be coordinated, again, like I said, with GCC. You
4 just can't go and turn the switch off. Then, when you
5 have an area like this, if you can go in and do 15, 20
6 structures, it makes sense to get as much done.

7 So that was -- the line going down, that's
8 saying that all those it looks like -- well, there's the
9 number. So that includes everything in this box right
10 here with the line going down is okay to move. And that
11 is all right based on the guidelines that, the parameters
12 set forth. But, like I said, if it's something that
13 looks like it could cause a potential problem, it's
14 gotten worse, it needs to be corrected.

15 Q. Let me ask you some clarifying questions so I
16 can make sure everybody understands what you're saying.

17 So when you say -- okay, let's move back.

18 So I'm looking at looks like one, two, three,
19 four, the fifth entry here, "notification 104897639."
20 And there's "required" and "9/29/2012." "Notification
21 date, 9/29/2010." And then it says "description,
22 Caribou-Palermo, 225A, replace brace."

23 What, what would "Caribou-Palermo 225A replace
24 brace" refer to?

25 A. Well, see, and then you go a little farther and
26 that's a wood pole.

1 Q. Okay.

2 A. So that's not steel. And, like I say, normally
3 you will have some wood involved in those. Most of it.
4 What that is, an arm doesn't just sit up there with a
5 bolt through it. It's got braces. And we used to call
6 them what they called "wish bone." It's a heavy brace.
7 But if you think of a wish bone, I mean.

8 Q. Does, does each entry on this form refer to
9 some problem that somebody has seen somewhere on the
10 line --

11 A. That's correct.

12 Q. -- that you are watching?

13 A. That's correct. That's an existing. In other
14 words, these sleeves, they've been working, but what it
15 is, per engineering, things change. So there's a lot of
16 sleeves in there. You can see that. So that's what it
17 is. They want to get those out of there.

18 Q. And, and how did you use this list during your
19 inspection? Why did you need this list while you were
20 doing an overhead inspection? What was your job as far
21 as like how did this list help you do your inspection?

22 A. Because already a known existing problem or
23 potential problem.

24 Q. Okay. Then during your inspections did you
25 look for each of these things on the towers as you were
26 inspecting them?

1 A. You have to. See where I've noted. If I don't
2 and I go in and there's no, there's nothing on here, the
3 boss is going to look at it and say, "What did you do
4 here?"

5 Q. Okay. Okay. So during an inspection you
6 looked, you -- is it fair to say you monitored
7 preexisting conditions on the towers?

8 A. That's exactly correct.

9 Q. Okay. And then did you also look for any new
10 problems?

11 A. Remember that -- yes. Yes. Remember that
12 first sheet? Gives you the objects?

13 Q. Are you talking about the, the codes?

14 A. Just getting them tied in. Yes. Not only am I
15 looking -- you don't go up there just to look for the
16 existing stuff. Like I said, you're going up there,
17 "Hey, that wasn't there when I flew that last year. That
18 looks pretty weird. Let's go back and take some
19 pictures."

20 Q. And if you saw something, would you take a
21 picture?

22 A. Yes. Lots of pictures.

23 Q. And then would you also note the problem
24 somewhere in a document? Where would you note that?

25 A. That would be -- there's another -- I don't see
26 it, but there's another sheet that has what needs to be

1 put on there, a structure number. It's got boxes, check
2 boxes, what it is, what you found. And then you, as a
3 troubleman, based on prior knowledge, past experiences,
4 you can say, "Hey, this needs to go in the first
5 quarter," which three months. Or you have the ability to
6 say, "Hey, that's going to be okay." But, fortunately, I
7 didn't make any calls where somebody had to go out and
8 say, "Hey, what you looked at last week fell down." But
9 the reality, it has happened. It does happen.

10 Q. Okay. But did that ever happen in your
11 experience?

12 A. Not with me.

13 Q. Okay. So we, we saw earlier on the form that
14 there are 445 --

15 (Counsel confer.)

16 Q. (By MS. RICHARDS) Let me ask you one or two
17 questions, then we're going to break for lunch and we'll
18 come back. And testimony should be fairly quick when we
19 get back. But let me ask you just a couple of questions.

20 Earlier you said there were 445 towers on the,
21 like that you're inspecting in an overhead inspection?

22 A. That's what is documented on there. I couldn't
23 -- there could be less now --

24 Q. Okay.

25 A. -- because of the poles. If the poles are, are
26 still there.

1 Q. Is it your recollection that there were several
2 hundred towers on the Caribou-Palermo line?

3 A. Absolutely. That number is not something --
4 it's dialed in. So when it says there's 445 structures,
5 you might not be able to look at all those structures,
6 depending on what's going on. But if that's what that
7 says, then it jives with what, everything that's on here.

8 Q. Okay. Approximately how long were you able to
9 spend on each structure during your annual overhead
10 inspection?

11 A. Well, when you're flying, you're not spending a
12 lot of -- you already have your priors; okay? So that
13 saves you, and all you're doing is you're reverifying.
14 You're -- you know, if something has been fixed, when was
15 it fixed, why isn't it not noted? So it's updated. But
16 yes, you're hovering, you're moving. So that's not a
17 detailed -- what you're asking, when you're flying, it's
18 not a detailed inspection.

19 Q. Okay.

20 A. You're looking for something that's going to
21 jump right out at you.

22 Q. About how many minutes do you think you could
23 spend, on average, looking at each tower during an annual
24 over inspection?

25 A. Oh, gosh, I mean it's -- realistically, it's
26 seconds.

1 Q. Seconds, okay.

2 A. Because you're moving and you're looking, and
3 that's what your eye is trained for. And I'll tell you,
4 those pilots, they are help as well, because I've had --
5 they have flown it, okay? And just because I'm a
6 troubleman doesn't mean I'm going to see everything. And
7 I've had a few pilots say, "Hey, (WITNESS #20), we need
8 to go -- let's circle back and take a look at that." It
9 could be a lightning strike. Like I said, they're kind
10 of tough to identify sometimes because of the birds in
11 the area. So they got, they're not just -- I want them
12 to fly. You're up there, let me do the looking, but they
13 can see when they're hovering. And if they see
14 something, "Hey, did you see that?"

15 "What?"

16 And that's happened. So they are an asset as
17 well.

18 Q. Okay. And two more questions.

19 During your overhead inspection -- did you have
20 any training for overhead inspections that taught you to
21 look at connection points like that, that hook that we
22 saw in Exhibit 37A earlier?

23 A. And that is correct. I -- we were supposed to
24 look at every connection point. That doesn't just mean
25 where equipment is dead ended, that means connection plan
26 is also a jumper that has either a press connection or a

1 mechanical, which is bolts. So, yeah, you're supposed to
2 look at everything.

3 Q. Okay. And would you be able to see everything
4 when you're doing an overhead inspection of the sort that
5 you just described where you --

6 A. Yes, but not in detail. I mean, if there's
7 something that's wearing because of strain and the wind
8 -- you know, wind caused a lot of problems, and there's
9 vibration. We have what we call vibration dampeners.
10 They could be six feet long to go out on the wire, the
11 conductor. This is all figured out by the estimators.
12 Just like anybody who builds a plane, a bridge, whatever.
13 When it says you go out and you do that or it needs to be
14 replaced, that's what you do.

15 Q. Okay.

16 A. But the detail -- I know, I mean, I cannot get
17 in there even when I'm in a helicopter. You have to see
18 something. And with electricity, normally it's a flash
19 or a burnt mark; okay? If you see physical damage,
20 something's bent, twisted, that's going to jump right out
21 at you. But electricity, it doesn't always expose
22 itself.

23 Q. Okay. Is it fair to say during an overhead
24 inspection that while you're looking for all the problems
25 you're likely to only see ones that are sort of more,
26 more visible from a helicopter?

1 A. Well, like on those bells, for example, you
2 were saying earlier, you mentioned that if it was like
3 hanging, well, you, you could not miss that. I mean,
4 you'd see that.

5 Q. I know I said only a couple more questions
6 because it's almost lunch, but since you brought up that,
7 I'm going to show you Grand Jury Exhibit 139, just for
8 identification.

9

10 (Grand Jury's Exhibit 139 was marked for identification.)

11

12 A. Do I have that photo?

13 Q. I'm going to bring a copy up to you, also.

14 A. Thank you.

15 Q. Since we're on the topic, let's just talk about
16 it right now.

17 If you'll look in the middle of that picture,
18 it looks -- do you see in the middle of the picture
19 there's a hanging insulator string?

20 A. Yes.

21 Q. Is that something that you would look at during
22 one of your inspections?

23 A. Yeah, I think I had previously mentioned,
24 normally with the weight and how the things hang.
25 Basically what that is, that is like it's laying into the
26 jumper, the wire. It goes to the bottom of that

1 insulator. It's tied into a shoe. But that's definitely
2 something that when you're flying, even from the ground,
3 you'd want to take a look at say, "Hey, that's something
4 kind of bent, something break." Those strings are very
5 strong, but I mean they could still fail.

6 Q. If you saw this during an inspection, would you
7 note it on one of your inspection forms?

8 A. Based on this picture, I don't think so.

9 Q. Why is that?

10 A. Because there's nothing really abnormal with
11 that. I mean, that's not -- and what did I tell you how
12 many is in there? I said around ten. So there's one,
13 two, three, four, five, six seven, eight, nine, ten I
14 think. That doesn't, that's not really -- I would take a
15 look at it and you would know if there's a problem. I
16 mean, right now I can see where it's suspended from, the
17 suspension point. I can see the conductor. But the way
18 this is, you've got wires jumping around all over, and
19 that's not that unusual. As long as that circuit is
20 still running normal, it's going well.

21 MS. RICHARDS: I think we can break for lunch
22 now.

23 And can we, Madam Foreperson, can we give the
24 witness secrecy admonition before, before lunch?

25 GRAND JURY FOREPERSON: Yes.

26 (WITNESS #20).

1 THE WITNESS: Yes.

2 GRAND JURY FOREPERSON: You are admonished not

3 to discuss or disclose at any time outside of this jury

4 room any questions that have been asked of you or your

5 answers until authorized by the Grand Jury or the Court.

6 A violation of these instructions on your part may be the

7 basis for a charge against you of contempt of court.

8 This does not preclude you from discussing the legal

9 rights with your own attorney.

10 (WITNESS #20), what I have just said is a

11 warning not to discuss the case with anyone except the

12 Court, your lawyer, or the district attorney. Do you

13 understand?

14 THE WITNESS: Yes, ma'am.

15 GRAND JURY FOREPERSON: Thank you.

16 MS. RICHARDS: Thank you.

17 So we will take an hour-and-15-minute lunch?

18 Does that sound right for the Grand Jury?

19 GRAND JURY FOREPERSON: Everybody okay with

20 that?

21 Yes.

22 MS. RICHARDS: Okay. So then we will come back

23 at 1:20 and resume.

24

25 (Lunch Break taken.)

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(Grand Jury present.)

GRAND JURY FOREPERSON: All the Grand Jurors are back in place.

MS. RICHARDS: The witness is back on the stand. (WITNESS #20) is back.

And you're still under oath, (WITNESS #20).

THE WITNESS: Thank you.

Q. (By MS. RICHARDS) Okay. So let's go back to the "Transmission Line Object List." We are looking at PG&E Camp Grand Jury 356. And I'm going to ask you a few questions, (WITNESS #20), about some of the things on this form.

A. 356 you said?

Q. 356. Let me know when you have it in front of you. I know you have a big pile of papers in front of you there.

A. We got it.

Q. All right. So we're looking at the "Transmission Line Object List." If you look in the first column, it says "Description of tech ID." Do you know what that refers to?

A. Yes.

Q. What does that refer to?

A. It gives you all the breakdown. The tech ID, I think that would be like technical location. They're

1 giving you -- below that -- see, it lists kind of
2 everything there. Then if you go below, it's giving you
3 000, slash, 001 lattice steel tower, another
4 corresponding number, double digit. So I couldn't tell
5 you, though, why it doesn't actually have a number
6 corresponding next to it. I'm sure it has something to
7 do with the way that it's tracked.

8 Q. Let's go, let's go to the next page. And look
9 at a similar entry on the next page. It says, 001009
10 lattice steel tower. What does the 001, slash, 009 refer
11 to?

12 A. That is the structure.

13 Q. Okay. Can you explain or are you familiar with
14 PG&E's naming conventions for the towers on the
15 Caribou-Palermo line?

16 A. Naming?

17 Q. Yeah. Do you, are you familiar with how the
18 towers were named by this number?

19 A. No. If I -- you know, if I would have started
20 in that department sooner in my career, then I would have
21 had much more -- I mean, just because you go through
22 training and you're qualified doesn't mean that you are
23 familiar with how everything was. Like you asked me the
24 coordinate. So much of the engineering and different
25 departments, so many hands involved in it, so I really
26 can't tell you how.

1 Q. Okay. Do you -- that number right there, the
2 001, slash, 009 lattice steel tower, do you understand
3 that to refer to one particular tower?

4 A. Correct.

5 Q. On the Caribou-Palermo line?

6 A. That's correct.

7 Q. Okay. And if you go down to the next box,
8 there's 001, slash, 010 lattice steel tower. Is that
9 another tower on the line?

10 A. That's correct. Of the four hundred, what was
11 it, forty-four, forty-two structures, that box indicates
12 each individual.

13 Q. Okay. And so would there be, would there be a
14 box for each tower on the line?

15 A. That's exactly what those are, yeah.

16 Q. Okay.

17 A. Yes.

18 Q. Let's see, I'm going to -- let's see, we're
19 going to jump over to -- excuse me just a minute.

20 I'm going to have you flip forward all the way
21 back to -- sorry, bear with me. I had this marked on
22 another copy of the document, which I seem to have
23 misplaced.

24 Okay. We're going to go to page 372. Let me
25 know when you're at that page.

26 A. And I'm there.

1 Q. Okay. So you'll see in the middle of the page
2 there's some handwriting. Do you recognize that
3 handwriting?

4 A. Yeah. I mean, I'm not joking with you when I
5 say that my handwriting -- I can sign my name, my
6 (WITNESS #20s), and five minutes I could -- it looks too
7 neat to be mine, but that is my name at the heading.
8 That's definitely my writing. And down there. And, you
9 know, after so many years went by, I usually -- it says
10 AP, which stands for air patrol, by (WITNESS #20).
11 Normally I would include my initial, but like I said, as
12 long as it's been done. But in all honesty, I can't
13 really say if that's my handwriting there or not.
14 Because, see, at the top I got (WITNESS #20). And then
15 you go down and I say (WITNESS #20). But it sure, it
16 could be.

17 Q. Okay.

18 A. Close. It's sloppy enough.

19 Q. I'm going to read it to you. It says, "AP by
20 (WITNESS #20) to this point only." And you just, you
21 just testified AP you understand to mean air patrol?

22 A. That's what it is, yeah.

23 Q. Okay. And then it says, "Incomplete due to
24 fire 7, dash, 12." What does that mean?

25 A. Well, that's when the other troubleman took
26 over. But there was a fire up there. But, again, I, I

1 don't know -- I remember running material up there for
2 the crew, but I don't remember the actual cause of the
3 fire.

4 Q. I don't need you to testify about the cause of
5 the fire. Let me just ask you a few more questions about
6 this air patrol.

7 Did you, did you have to stop this air patrol
8 midway through because of something that happened during
9 the aire patrol?

10 A. I can't answer that correctly. I don't
11 remember that far back.

12 Q. Okay. Do you recall having to stop the air
13 patrol because there was a fire in the area?

14 A. That is the possibility, because if it's smoke
15 up in that area and you have lack of visibility, you
16 can't fly.

17 Q. Okay.

18 A. Wind, also. If it's above usually 35 knots, 40
19 knots, it's not recommended to do a patrol.

20 Q. Okay. Then let's go on to the next page. In
21 the top right-hand corner it says "Inspector name," then
22 it says, "(WITNESS #1)"?

23 A. Correct.

24 Q. Do you know anybody named (WITNESS #1)?

25 A. That was my partner in crime.

26 Q. Okay. When you say "partner in crime," what do

1 you mean?

2 A. That's, you know, slang stuff. He was my -- we
3 have pole partners, but in transmission you don't -- we
4 work, (WITNESS #1) and I had the same area. About areas,
5 we have four troublemen there. Two of the other guys
6 worked certain areas than me and (WITNESS #1). So we
7 were a team, you're a team.

8 Q. Did he -- was he also a troubleman, the same?

9 A. Yes.

10 Q. He had the same position as you?

11 A. Yeah. He has to be a troubleman to do that.

12 Q. Okay. All right. I'm going to put up the
13 picture that you've seen already, Grand Jury Exhibit 37A,
14 and just ask you a few more questions.

15 In relation to this hardware, when you're
16 performing inspections -- do you have the picture?

17 A. Yes, I do.

18 Q. Okay. Were you trained to specifically look at
19 the connection point between the hook marked as A and the
20 B, and the plate marked as B when you were performing
21 inspections?

22 A. As stated earlier, we were to looking at every
23 connection point.

24 Q. Did you have specific training on what to look
25 for in regard to this type of connection?

26 A. When you say "training," there's really nothing

1 to be trained on. You're looking for something. Like if
2 that hook would be bent abnormal; in other words, not in
3 its normal shape. The eye could have, where it's hanging
4 from, the I-bolt, it could have a rip or a tear or a burn
5 mark. Usually what you're going to see, if nothing came
6 down heavy and hit the stuff, you're going to see burn
7 marks or tracking which indicates leakage. But there's
8 no real specific training. That's what you're looking
9 for, broken stuff.

10 Q. So looking for broken hardware or hardware that
11 has burn marks. Were you trained to look for anything
12 else, any other problems in regard to this type of
13 connection point that's in 37A?

14 A. Well, there's really, I would say there's less
15 than three or four things that can actually be a problem
16 with that, so they would stand out pretty good. But when
17 you asked me earlier before the break, when you're
18 flying, you can miss some things.

19 Q. Okay.

20 A. I mean, like you mentioned, these bells in this
21 other photo. There's no strain, there's no heavy
22 connector on there making it like that. That's just,
23 that's just -- it's pushing back on itself. That's not a
24 heavy conductor, that's a jumper. So that's why it has
25 that.

26 Q. And, for the record, the witness is referring

1 to Grand Jury Exhibit 139.

2 A. Right. Thank you.

3 Q. All right. So I was just asking you questions
4 about the overhead inspection that you performed in 2012
5 that you were not able to complete due to a fire. Did
6 you let anybody know that you weren't able to complete
7 the inspection?

8 A. Well, that's written down on that log sheet.

9 Q. Okay.

10 A. And then when you're done, you know, the
11 supervisor knows. I mean, when you're done with a flight
12 and you have to cancel a flight, you have to go to the
13 proper command and let them know. And I may have been
14 told to cancel, too. I just cannot remember.

15 Q. And did you tell your supervisor that you
16 weren't able to complete the --

17 A. Well, it's documented.

18 Q. -- the inspection?

19 A. So, yeah, there had to be verbal communication
20 as well.

21 Q. Okay. And did you, did you give anybody
22 written -- did you, did you -- well, who was your
23 supervisor at the time?

24 A. That would have been -- since (WITNESS #12) on,
25 that would have been (WITNESS #12).

26 Q. Okay. And did you give him any, did you tell

1 him in writing that you were not able to perform the rest
2 of the inspection?

3 A. It's on that -- in the notes there that we saw
4 earlier. Remember the spec. sheet where it says, "Okay
5 to move," and then complete and drop down and then have
6 to stop, if you go down, it's written there. Then
7 there's a sheet when you fly in a helicopter to keep
8 track of the hours. Because there's a lot of money
9 involved there. That sheet gets turned in with usually
10 my time card with my hours on it. So the clerk,
11 (EMPLOYEE #17), nothing gets by her. It's all there. So
12 there is documentation.

13 Q. So there's multiple places where you would have
14 documented that you were not able to complete the
15 inspection?

16 A. Right. And they might not have seen this right
17 away, when -- until I turn it in. But with all the
18 follow-up, there's at least two or three other types of
19 documentation that are going to be seen.

20
21 (Grand Jury's Exhibit 138 was marked for identification.)
22

23 Q. Okay. Great. I have just a few more things.
24 I'm going to show you Grand Jury Exhibit 138.
25 Now, this is -- the Grand Jury is not going to see this,
26 I am just going to ask you a few questions just to

1 authenticate the document. Is that an email that you
2 wrote?

3 A. Well, it's got my name at the bottom of it. I
4 mean, it's not a signature when you have to sign
5 something, but I communicated with what I needed to do.
6 And I had to take time off. So yeah, that. And it's got
7 my heading at the top.

8 Q. And then who did you write it to?

9 A. That's to my supervisor, (WITNESS #12).

10 Q. Okay. And you mentioned a (WITNESS #1) in
11 there. What (WITNESS #1) does that refer to?

12 A. The (WITNESS #1) on this here.

13 Q. Okay.

14 A. So when you're working with a group of people,
15 you wouldn't really say Megan Johnson or Megan Smith,
16 they know who you're talking about.

17 Q. You probably didn't have a lot of different
18 (WITNESS #1s) on your --

19 A. That's kind of a nickname as well. And I had
20 them as well. His real name is (WITNESS #1). He's
21 (WITNESS #1).

22 Q. Thank you.

23 One moment, please.

24 All right. (WITNESS #20), I have just a few
25 follow-up questions about a topic we've already covered
26 but not in very much detail.

1 So I have right here the "Object Code," "Damage
2 Code," and "Cause of Problems" tables from Exhibit 137.
3 And I'm on page PG&E Camp Grand Jury 351.

4 So if you look at "Damage Code," do you see "MC
5 18 out of plumb"?

6 A. Yes.

7 Q. What does that refer to?

8 A. I have explained that, but not today. When,
9 when you're setting a pole, for example, we take a
10 weighted object with a string. It could be fishing line.
11 Anyway, plumbing means you want to set something as true
12 straight as possible. And if you have an angle, and
13 conductor is going to be pulling into it, what we do is,
14 the terminology is you would set it, say, "a half a pull
15 out of plumb." It's just that's the lingo that was used.
16 It could be even different now.

17 But that's what -- plumbing even a tower,
18 that's what I say if the tower is leaning and one of the
19 legs is damaged, it's dropped maybe two feet, legs
20 buckled, it's not plumb. So when they build those towers
21 and set a pole line, they try to get them as true to
22 being -- how can I -- you know, straight in line, so to
23 speak. But, you know, you can have something straight at
24 an angle in this way. But plumb means when you set that,
25 you build it, it's, it's in line. It's just true,
26 correct.

1 Q. So if you saw a metal transmission tower that
2 was leaning, would you mark "MC 18 out of plumb" on your
3 inspection report?

4 A. No, I don't think I'd use that terminology,
5 because to me that deals more with our wood pole. I
6 never saw that on reference to a tower out of plumb.

7 Q. Would you use that in reference to an insulator
8 that was out of plumb?

9 A. Well, if you're describing it like that picture
10 that you showed me -- go back to that one you gave me.
11 The -- on 139, Exhibit 139. Do you see how the others --
12 there's three strands of bells in there, three sets?

13 Q. Yes.

14 A. You see how they're pretty much -- you can use
15 the word "plumb." See how two of the three are pretty
16 much straight down?

17 Q. Yeah.

18 A. And the other one, though, is resting on that
19 jumper, okay? That's why. And those things are made --
20 it's like an accordion. They're made to swivel, pivot.
21 And it looks -- that's something, though, you asked,
22 yeah, I want to look at that. Why is that like that when
23 the other two aren't? If it's just on a jumper like
24 that, it could be put in a little bit more of a strain,
25 but it's still being held in on the hook.

26 Q. So would you use that out of plumb code to

1 refer to this in Grand Jury Exhibit 139?

2 A. No, not when, not if I'm having to describe
3 like if there is an issue there.

4 Q. Okay. Would it be a close call whether to use
5 the code or is it clear to you sitting here right now
6 that you would not use the code?

7 A. No, I would not use -- I never did. I mean, I
8 had, I never wrote anything up like that as a problem,
9 because you look at it, it looks like you can see that
10 pretty good from below as well, so you'd only want to
11 know why is it doing that? Did something break? Did a
12 pin pop out? Why is it putting extra pressure? But a
13 lot of times it just has to do with things sag, the other
14 wire. And believe it or not, wires, when they're under
15 load, when it's hot and cold, they expand and contract.

16 Q. If you saw, if you saw an insulator out of
17 plumb like that, would it, would it cause you to inspect
18 it more closely?

19 A. Yeah. I said I would. I would want to make
20 sure that I'm not just flying past it, driving by it.
21 But it's very easy to see that scenario right there.
22 Because it's -- the bells are pushing down on that jumper
23 wire, as you can see that wire in the picture in the
24 bottom. That's what that is, it's a jumper.

25 It looks worse than it is. But if you drive up
26 the canyon, Highway 70, and you go there's a bell and

1 substation, a lot of it is just, it's just droopy stuff.
2 Doesn't mean that there's actually a problem. If that
3 thing was this way and laying off this side and the
4 wire's holding it, then you know it's not hanging
5 anymore, so you've got a problem.

6 Is that -- like I say, there's different things
7 in that object list. And you wouldn't -- I didn't, and I
8 don't know anybody else that did, I'm not saying they
9 didn't, just say something's out of plumb. You might use
10 that terminology if you are on the radio and you say,
11 "I'm going to go get a closer look at the tower" if
12 you're driving by, "it looks out of plumb." Whoever
13 you're talking to knows what you're talking about. That
14 thing could be leaning. Why is it leaning? It's just
15 some terminology that's used generically.

16 Q. Okay. Just a moment.

17 MR. NOEL: I'm going to ask you a few
18 questions.

19

20 EXAMINATION

21

22 BY MR. NOEL

23 Q. Going back to your job as troubleman and the
24 basis of your job as a troubleman, make sure I'm
25 understanding this right, it sounds like you're both --
26 your job is both reactive and preventive; is that

1 correct?

2 A. Yes, sir.

3 Q. If something happens to one of those lines, an
4 alarm goes off in the grid control center, you're the
5 ones that they call to go out and find what's wrong?

6 A. That's correct.

7 Q. Not to fix it, but to find it?

8 A. That's correct.

9 Q. On the other hand, you're also doing preventive
10 because you're going out and looking at the lines and
11 trying to identify not just problems but what's going to
12 be a problem?

13 A. Correct.

14 Q. And so that they can be fixed before they
15 happen; correct?

16 A. Yes. That would be our preventive maintenance.

17 Q. So in terms of your training as a transmission
18 troubleman, you spent a lot of time talking about the,
19 not necessarily about the training, but the physical
20 demands of making sure that you're physically able to do
21 the job, which you can climb the tower, climb the pole,
22 that you can ride in the helicopters. Was there any
23 actual training as to how to do the inspections
24 themselves? And what was that?

25 A. Yeah, there was. There was classroom --

26 Q. What was that?

1 A. -- you're in. Constantly doing your online
2 courses as well, which most of us guys don't like because
3 we want to be out in the field. I don't want to be on a
4 computer. But yes.

5 Q. Okay.

6 A. We also would go to school. Some of those
7 schools would involve two weeks', two weeks' worth of
8 training. And you'd get tested on things. But most of
9 it was on, that aspect of it was the rigging, spend more
10 time learning how to do rigging because you had to go out
11 and assist a crew --

12 Q. Right.

13 A. -- at times.

14 Q. But that's, again, that's kind of the physical
15 part of the job?

16 A. Right.

17 Q. Not what to look for on a transmission line or
18 transmission tower to see if there's a problem; right?

19 A. Yes. But there was --

20 Q. I kind of -- to put it in a common sense, what
21 we all do, if I'm going to take my car to a mechanic, I
22 want to take my car for an inspection and an oil change
23 and stuff, I want to take my car to a mechanic who knows
24 what my car is supposed to look like when it's at its
25 optimal performance; right?

26 A. Sure. Correct.

1 Q. So somebody who has never looked at a tire
2 before, has no idea what a brand new tire looks like,
3 can't tell you if your tire is not right. They may be
4 able to tell you that it's flat when there's no air left
5 in it, but they're not going to be able to look at it and
6 tell you if you're about to have a problem; correct?

7 A. Understood. Understand. Yeah.

8 Q. That's what I'm asking is from what did they do
9 to teach you what this stuff is supposed to look like so
10 that when you're seeing things in the field you can
11 anticipate problems?

12 A. Well, again, there's all that on-the-job
13 training that I went to prior to the -- in the other
14 department. But when you look at these fixtures here,
15 there -- you know, you can take somebody that's never
16 seen anything like this, if there's a split, a rip, a
17 tear, a bend, a problem, you would be able to point that
18 out and hopefully they would get that within five
19 minutes. I mean, if I can't see something like that
20 being a troubleman and distribution for X number of
21 years, then -- like you said, nobody's going to miss
22 something like that. But where that hook sits in that
23 eye, there's no way -- and I think that's what you guys
24 are trying to get to -- there's no way you can tell how
25 much wear is under there. You can't.

26 Q. So I'm -- well, let's back up on that. I've

1 got it up on the big board, a copy of that picture. This
2 is the same picture; correct?

3 A. I was looking at Exhibit 3, 37A.

4 Q. You have 37A? Let's give you 37. I'm sorry, I
5 should have done that before I got in there.

6 MS. RICHARDS: 139. Is that 139?

7 THE WITNESS: I have Exhibit 37A, and I think
8 it's --

9 MR. NOEL: 37.

10 THE WITNESS: What's the picture behind the
11 book?

12 Q. (By MR. NOEL) Actually, the one I've got is
13 139 up there. So this is 139.

14 A. Okay. I got it.

15 Q. So in order to inspect this, you need to know
16 what this actually looks like when it's optimal; right?

17 A. But you, you have a general idea because
18 basically the way it comes in on a structure, you're
19 looking at it. And it's, it's -- basically you got to go
20 out in the field and you got to look at the stuff. So
21 that's where a lot of your training comes in. You've got
22 to go out there. And hopefully you're not looking at
23 something that is damaged, you're looking at something
24 that is working, in good order. So then, like you say,
25 if you do have a problem, you can recognize the problem.

26 Q. Right. Well, this, this picture, we have a

1 problem. This bell string, that's not the way that's
2 supposed to look, is it?

3 A. No, they're -- I've seen them in the field like
4 that.

5 Q. That's not the way it's supposed to look. They
6 may look like that, but the wire is supposed to -- the
7 jumper cable, the jumper conductor here is supposed to
8 hang off the bottom of this?

9 A. It should be, it should be, it should look more
10 like the other two.

11 Q. In this one you see the jumper cable hanging
12 off the bottom. In this one the jumper cable isn't
13 hanging off the bottom, is it? It's actually holding the
14 bell string up?

15 A. There should be a shoe. This picture, it's a
16 good picture, but it's not as detailed as it looks. But
17 there's definitely strain on that jumper. I'm calling it
18 a jumper.

19 Q. Do you know what this is right here?

20 A. That looks like that would be part of the shoe
21 that comes out of that bell. In other words, where it
22 lands, the wire. Some of them are flat like a cup and it
23 would lay, and other times it would go in and dead end
24 that way.

25 Q. Would it surprise you if I told you that that's
26 a splice?

1 A. I can't -- you know, I don't have my glasses
2 with me, but looking at this picture, I can't really --
3 if I'm taking the picture, I'm out there looking at it, I
4 would be able to identify it. I cannot identify that as
5 a splice or not.

6 Q. You generally flew the line in the helicopter;
7 correct?

8 A. Excuse me?

9 Q. You flew the line in the helicopter for
10 inspection?

11 A. Flew the line, yes.

12 Q. This photo would appear to have been taken by a
13 helicopter?

14 A. Yes.

15 Q. Now, are there supposed to be splices in jumper
16 lines?

17 A. That's not necessarily a splice. What it is --

18 Q. Well, let's just assume. Let's assume. I can
19 tell you, assume that is a splice.

20 A. No, we don't want to assume. My job, you're
21 not supposed to.

22 Q. No, no. I know. But I'm going to tell you
23 that is a splice. That is a splice in a jumper cable.

24 A. Who told you that was a splice? May I ask you
25 that?

26 Q. Nope. That evidence will come later. But just

1 assume this is a splice, that someone has cut this jumper
2 cable, shortened it, and spliced it together right here
3 next to the, to the shoe that you're talking about.

4 A. That doesn't make any sense, because that
5 conductor, it -- I think that's probably only about 15 or
6 20 feet. And to do that, that would just be -- that
7 wouldn't be repaired properly. You'd just replace that.
8 Because in order to do that, that's going to be
9 de-energized anyway. You cannot do that on a hot
10 circuit.

11 Q. And this is, this is usually -- this should be
12 hanging like this; right? So that's not correct. So
13 somebody's shortened this to the point where now your
14 bell string is actually being held up by your jumper
15 because it's too short?

16 A. No. It's still connected at the hook up at the
17 top.

18 Q. Right.

19 A. But there's strain on there, that's for sure.
20 There's definitely strain on there.

21 Q. So let's go back to talking about the hook.
22 What training have you been given in what to look for in
23 the connection point?

24 A. I never -- you're looking at it visually. I
25 don't know what to say other than you're looking at the
26 components. Nothing's bent or tweaked. So it's hanging

1 there. It's doing its function. Nothing is bent on the
2 end. Doesn't look like anything, if you're looking at
3 them, if you can tell if they've been shot at. So
4 basically, training, there is no training. You're going
5 by what you see. If something doesn't look kosher, you
6 write it up.

7 Q. Going back to our car example, you have to know
8 what this actually looks like when it's, when it's
9 correct; right?

10 A. But that's very easy to see.

11 Q. Do you have any idea -- do you know the size
12 and shape of the hole that the hook is mounted to?

13 A. No, sir. I would not know that.

14 Q. That's not in anything that you're taught?

15 A. No.

16 Q. So let's assume that that hole is a circle and
17 it's 1 1/8 of an inch; okay? You got it?

18 A. Yes.

19 Q. That's a circle 1 1/8 of an inch. In your
20 training, are you told how big these hooks are?

21 A. No, because --

22 Q. Now let's assume the apex of that hook, where
23 the hook connects to the hole --

24 A. Correct.

25 Q. -- is 7/16 of an inch. Not 7/16 of an inch,
26 15/16 of an inch. Right? So 15th of a 16th -- 15/16 of

1 an inch. That hole is 1 1/8 inch. How much daylight
2 should you be able to see through the top of that hole,
3 if this is optimal?

4 A. There's no parameters set forth for that.
5 There's nothing I've ever seen how much. In other words,
6 if you put something in there --

7 Q. Let's do simple math. If the hole is 1 1/8
8 inch and the hook is 7/16 of an inch -- or 15/16 of an
9 inch, that should leave 3/16 of an inch between the top
10 of the hole and the top of the hook. So, in other words,
11 this area right here should be 3/16 of an inch. That's
12 what it should look like brand new, when it's optimal;
13 right?

14 A. Again, I don't know what those parameters are.
15 It's got to be able to swing and move and pivot.

16 Q. Right.

17 A. So if somebody's trying to force something in
18 there on a new build, that's not right. I'm going to
19 tell you, that's not right.

20 Q. I'm telling you if PG&E engineers, the people
21 who designed this, said that this hook, the eye's apex is
22 to be 15/16 of an inch at that place right here where
23 it's going to be in contact. And that hole is going to
24 be 1 1/8 inch around. That's the PG&E specs. You don't
25 know that; right?

26 A. I've never seen, never heard that there needs

1 to be any specs.

2 Q. That was not part of your training?

3 A. No.

4 Q. PG&E, they have engineers and all of that stuff
5 is designed and over designed and everything else; right?

6 A. Yes.

7 Q. If the PG&E engineers determined that that hook
8 is supposed to be 15/16 of an inch, and that hole is
9 supposed to be 1 1/8, that would leave 3/8 -- or 3/16 of
10 an inch of daylight in the top; right?

11 A. Okay.

12 Q. So the fact that there's more than that
13 daylight would be an indication of wear; correct?

14 A. But you're not going to -- that's -- we're not
15 going out there -- when I was in the different
16 department, if I may allude to, there were times you had
17 to go up and measure with a ruler. That never happened
18 when I was, when I was in the transmission department.
19 You can't go over there and say, "Oh, that doesn't look
20 right." You'd never get beyond that structure. I mean,
21 and then the only way, if that thing was built -- the
22 engineer might have designed it right, there's always a
23 possibility the crew didn't install it properly. They
24 maybe went with a smaller bracket. I don't know. I
25 don't know that.

26 Q. Don't know. But you just made the point.

1 Nobody's going up and inspecting this; right?

2 A. You know, it would have to be something that
3 they're having a generic problem with. See how much
4 different that photo looks versus Exhibit -- go back to
5 37A, where you have a much bigger, because it's a
6 different bell strand. So that's a much tighter fit
7 there.

8 Q. So hold on. Let's go back. This is 139A;
9 right?

10 A. Yes.

11 Q. 139, we just looked at this, is a closeup of
12 that hook. And you're saying this is a tight fit?

13 A. It looks like a tight fit, but there's --

14 Q. This space right here is supposed to be 3/16 of
15 an inch; correct?

16 A. Per your figures you were using, yes.

17 Q. That's significantly more than 3/16 of an inch;
18 correct?

19 A. I can't say.

20 Q. Okay. Can you also tell -- and you can come up
21 here and look at it, or you can look at the one in front
22 of you.

23 A. This is a good photo here.

24 Q. This mounting hole is no longer round; it's now
25 oblong.

26 A. Yeah. I mean, I can agree with that, but --

1 Q. Okay.

2 A. -- that's not like you -- as far as specific
3 training, I mean, I never, I never spotted anything like
4 that.

5 Q. Right. And I'm not saying that -- what I'm
6 pointing out is that when you became a transmission line
7 troubleman, your job is preventive as much as it is
8 identifying when problems happen? Your job is supposed
9 to be part of that preventing problems?

10 A. That's correct.

11 Q. Going out and identifying components that not
12 necessarily are failing right now, but are going to fail
13 tomorrow or are going to fail next month or next year or
14 three years from now; right? Because when you're a
15 trouble --

16 MR. FOGG: Marc, can the witness, please,
17 answer the question verbally?

18 THE WITNESS: Yes, that's correct.

19 Q. (By MR. NOEL) One of the things when you're
20 doing your inspections and you do identify problems, and
21 in this 2019 inspection -- you've got the exhibit -- in
22 this 2019 -- 2019 --

23 A. 2012.

24 Q. 2012 inspection. You know, you were talking
25 about page 352 earlier, which is the preexisting
26 conditions list; right?

1 A. Correct.

2 Q. And there's stuff in there, "Okay, it's okay to
3 move this out two years," and whatever. PG&E actually
4 had priority categories for everything; right?

5 A. Yes.

6 Q. "A" priority would be this is an emergency, it
7 has to be done absolutely positively today --

8 A. (Nods head.)

9 Q. -- to "E" priority, it needs to be done
10 sometime in the next 18 months I think it was or
11 something; right?

12 A. Some of those are judgment calls. Like you
13 said --

14 Q. Right.

15 A. -- it might not last. This is within the
16 parameters of what you -- that's why you have a book --
17 but it could fail tomorrow.

18 Q. Exactly. So what you're looking at, the vast
19 majority of that list that's in there, that preexisting
20 conditions list, are conditions that were identified
21 during the 2009 inspection; correct?

22 A. Yes.

23 Q. And somebody doing a 2009 inspection said this
24 is going to be a problem and noted a whole bunch of
25 potential problems basically for the -- you know, but
26 they aren't a problem today, but these are things that I

1 see are going to be a problem down the line. And then
2 you guys as the follow-up inspectors are looking at those
3 things and saying, "Okay. It's still okay. It's still
4 okay"; right?

5 A. (Nods head.)

6 Q. You have to answer verbally.

7 A. Yes. If it is okay, then you would say it's
8 okay, yes.

9 Q. Right. So the whole point I'm trying to make
10 is nobody ever told you to look at this, these connection
11 points, nobody ever told you what those connection points
12 were supposed to look like and said you need to be
13 checking on those connection points for wear and tear?

14 A. Well, I don't need to be told to look at those.
15 I said I look at every connection point. But for me to
16 determine that there's something wrong there, if it's 3/8
17 of an inch and you're in the air, I can't, I can't make
18 that determination.

19 Now, with the picture that we show where
20 there's a little bit more pressure down on that
21 conductor, yeah, there might be something there that you
22 want to go and take a closer look at. And then you might
23 be able to say, "Yeah, that looks like that's wearing."

24 Q. Well, even going back to 139, you can still see
25 a whole lot of daylight. As a matter of fact, you can
26 see the branch in the background through the space

1 between the top of the hook in the top of the hole. The
2 whole point I'm trying to make is nobody ever taught you
3 what it was supposed to look like; right?

4 A. But there was -- I don't believe there's any
5 parameters that were set there, but I may -- as long as
6 it's there and it's hanging. But you can tell if
7 something's bent, pulled, distorted. But because it's
8 gapped or it's tighter or looser, no, huh-uh, I wasn't --

9 Q. So as long as this thing is still connected it
10 wasn't a problem?

11 A. Right. In other words, I would have to see a
12 little bit more than what I see there. There's -- how
13 old is this system? May I ask you that? And, see, I
14 should know that; right?

15 Q. Okay. I don't know if that's relevant to your
16 job or not, but I don't have any further questions.

17 A. But age has something to do with it.

18 MR. NOEL: I don't have any further questions.

19 Madam Foreperson --

20 I'm sorry, Nick, did you have anything further?

21 MR. FOGG: Just if the Grand Jurors have
22 questions, please write them down. We'll look at them
23 with Madam Foreperson. If they're legally competent,
24 we'll ask them to the witness.

25 (Counsel and Madam Foreperson confer.)
26

1 EXAMINATION

2
3 BY MS. RICHARDS

4 Q. All right. (WITNESS #20), we have three
5 questions from the Grand Jury. And one of the questions
6 has two parts.

7 First question, have you or are you aware of
8 anyone who may have provided fraudulent reports of
9 inspections?

10 A. I have never, I have never been privy, if I may
11 use that term, to anything like that. If you, if you --
12 my experience at PG&E, we did establish a hotline, I
13 think it was back in the mid 90's. Even if, as me as a
14 subordinate, if I thought my supervisor or a supervisor
15 was doing something that they shouldn't be doing, there
16 was a number that you could call. You didn't have to
17 identify yourself. But if that's a fact -- I don't have
18 a problem with that. But I've never heard of that. The
19 only thing I've ever heard in my career -- Megan, the
20 only thing I've heard in my career is they have signed an
21 employee's time sheet. And nobody does that. That's,
22 that was in a different department. That supervisor got
23 reprimanded for -- you don't do that.

24 Q. Okay. Next question, does the age of the parts
25 have any bearing on the inspection of those parts and
26 their acceptability of that part?

1 A. Yes, definitely. In other words, I was posed
2 the question for that last photo, and age. And if we
3 write things up and we're allowed, we meaning the
4 employee, to keep saying it's okay to push it out, push
5 it out, push it out, I think that if you keep continually
6 doing that, you're going to have an eventual problem. It
7 needs to be taken care of, whether or not it's that A
8 classification, all the way to E. But being they're
9 being pushed out, it's within the parameters of whatever
10 our engineering department or whatever. We're following
11 guidelines.

12 Q. Okay.

13 A. In other words, I can't just say, "I want to
14 push that out -- why do I got to do papers and say I want
15 to put it out two years? I'm going to push it out ten
16 years." That's a hypothetical, but do you see my point?
17 But some of those, 2009 to '12, that's three years, I
18 imagine some of those got pushed out still while after I
19 retired.

20 Q. Okay. So this question had two parts, so I
21 asked you the first part which was does the age of the
22 parts have any bearing on the inspection of those parts.
23 It sounds like your answer to that was yes, age does have
24 a bearing; is that correct?

25 A. I would love to have more stuff done when I was
26 out there, you know, but it has to all go through the

1 supervisor. But yes, that would be correct.

2 Q. Okay. Then next part of this question is do
3 inspection reports provide information on the age of
4 specific parts?

5 A. You would have a record of when -- in other
6 words, if you went in here and de-energized that circuit,
7 you wouldn't just change out that center string of bells,
8 you would change out all three. That's -- in other
9 words, you try to do it efficiently. You wouldn't work
10 just one side, not do the other and have to come back
11 four years later. You do everything you can do that
12 needs to be done. And that could be including what Marc
13 said about the hook and the gap and the wear, and that's
14 not acceptable. You know, hopefully somebody's going to
15 catch that. When you have your hands on it, you have the
16 ability to see more things, to catch more problems.

17 Q. I'm going to ask you the question again because
18 I'm not sure that you answered it fully. But do
19 inspection reports provide information on the age of the
20 specific parts?

21 A. Only if you've had to do work. I mean, it
22 would document that that's a new component, new part;
23 right? But I don't know the actual age of that
24 structure.

25 Q. Okay.

26 A. If that answers your question. But the new

1 stuff, anything new would be logged in and you'd know,
2 "Hey, that was done just like in 2010."

3 Q. Okay. Let me ask you the final of the Grand
4 Jury's questions.

5 When flying above the lines for annual overhead
6 inspections, how far above the towers are you flying in
7 the helicopter?

8 A. Well, you have a safety factor in there.
9 You're not supposed to get within 20 feet of that
10 structure. That thing loses power, you can't get out of
11 the way, you're going to drop down in there and you're
12 going to have a disaster. Not only getting killed,
13 you're going to take the circuit out. So, yeah. And a
14 lot of these pilots, you got to tell them, too, "I didn't
15 feel real good about what you just did back there." But
16 I didn't have too many problems like that. They're pros.
17 They've flown it. Everybody's different. You know,
18 pilots flying with a new guy; is this new guy going to be
19 this way? And how am I going to be with that pilot? So
20 you've got to work it out. You've got to work it out
21 real quick.

22 MS. RICHARDS: All right. Thank you.

23 Are there any follow-up questions from the
24 Grand Jurors?

25 Looks like we have no more questions.

26 MR. NOEL: Nope.

1
2 EXAMINATION
3

4 BY MR. NOEL

5 Q. I have a follow-up to something you just said
6 that, in response to one of those questions.

7 You said that if you were to get up, if you
8 were to -- it would make sense if you were to climb up in
9 the tower to fix one thing, that you'd fix everything;
10 correct?

11 A. When you have to clear that, that's bucks.

12 Q. Right.

13 A. So you want to do all the work that you can
14 possibly do there at the time so you don't have to take
15 it down again.

16 Q. Exactly. So if you're going to do work in,
17 along that line, you're going to do everything at once
18 when it's taken out of commission?

19 A. Should.

20 Q. Right.

21 A. Yes.

22 Q. Going back to your, to the exhibit here that we
23 had in front, and -- let's see, where was the, where is
24 the list of the --

25 A. The components?

26 Q. No, the preexisting conditions list.

1 A. Right there.

2 Q. No, that's my copy.

3 So this was a 2012 inspection; right?

4 A. The inspection that my name's on?

5 Q. Yes.

6 A. Yes, that's correct.

7 Q. So these were all preexisting conditions that

8 were documented going into your inspection --

9 A. And priors on there.

10 Q. -- and you look at. And you said was it PG&E's

11 policy that if you went up to do work in a tower that

12 you'd do everything that needs to be done?

13 A. But, see, that's a supervisor's call.

14 Q. Okay. But, I mean, was that the general

15 policy, if you have to shut down a tower to do work on it

16 that you do --

17 A. What I was involved in, yes. Yes, they did.

18 They --

19 Q. Okay.

20 A. Yes.

21 Q. But I want to ask you, the top line, this is on

22 page, PG&E Camp Grand Jury page 355, this is part of the

23 preexisting conditions list. Can you read us the top

24 line?

25 A. You want -- the date, 11/30/2015.

26 Q. Yep. And then from there?

1 A. 8/25/2009. It says Caribou-Palermo, looks like
2 27 over 222. And looks like it would be -- part of that
3 is missing, but I'm sure it would be RPO, which means
4 replace connectors.

5 Q. So 27 over 222, that would be tower number
6 27/222 of the Caribou-Palermo; correct?

7 A. That's the structure, correct.

8 Q. Okay. And that's how you read that, the
9 numbers; correct?

10 A. Yes, sir.

11 Q. And I think tried to go into it a little bit
12 earlier with Ms. Richards about naming conventions. All
13 of the, all of the numbers on every transmission line --
14 or every tower on every transmission line is numbered;
15 correct?

16 A. Yes. And if that number is not there upon
17 inspection, you got to get that number back on there.

18 Q. Right. You have to know. Because when you are
19 doing inspections, when you look at the transmission
20 object list, those are listed by the, by the tower
21 number; correct?

22 A. Correct. That coincides. Better coincide.

23 Q. Exactly. So you have to know the tower
24 numbers. Do you understand or know how it was that they
25 numbered the tower lines?

26 A. No, I really don't. I mean, that stuff, it's

1 like highways maybe and byways. You can have the same
2 number, but a different, like a highway is different
3 than --

4 Q. Right.

5 A. So I really don't. I don't know how they did
6 that.

7 Q. Yeah. Well, for instance, do you know where
8 the Palermo, the Caribou-Palermo line starts?

9 A. Yes.

10 Q. Where?

11 A. Comes out of the Palermo substation down and
12 goes up to Caribou.

13 Q. It goes up to Caribou. So Caribou to Palermo.

14 A. However they come up with those names, though,
15 I cannot tell you.

16 Q. No, and I'm just asking do you understand what
17 it means --

18 A. Sure. Yes.

19 Q. -- and the numbers?

20 So as of your inspection, there was preexisting
21 conditions noted on 27/222 to be fixed?

22 A. (Nods head.)

23 Q. And what we were talking about is if somebody
24 went up to fix those things, and it hadn't been done as
25 of the time you left, it would have made sense for them
26 to fix all of the issues in the tower, in this specific

1 tower?

2 A. Again, I don't know how they come up with being
3 able to push things out. As long as you're not getting
4 any momentaries, any alarms on that line. But yeah,
5 anytime you got a connector, there's a potential there
6 for failure.

7 Q. Right. But that was something that you were
8 looking at in the inspections?

9 A. Oh, yeah, I had to. Like sometimes they're
10 done. Sometimes the work is done.

11 Q. And actually in this inspection you didn't make
12 it to 27/222; correct? You stopped short of 27/222?

13 A. Whatever that's logged in there.

14 Q. Right. Okay.

15 A. And then it was taken over by (WITNESS #1).

16 Q. Okay. Thank you. That cleared up what, the
17 issue that was raised.

18 MR. FOGG: Madam Foreperson, are there any
19 other questions from the Grand Jurors for this witness?

20 Madam Foreperson, it appears there are no
21 further questions for (WITNESS #20).

22 GRAND JURY FOREPERSON: Okay. (WITNESS #20),
23 I'd just like to remind you of the admonition that was
24 given to you earlier today and the outcome of it --

25 THE WITNESS: Correct.

26 GRAND JURY FOREPERSON: -- if necessary.

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THE WITNESS: I understand.

GRAND JURY FOREPERSON: Thank you.

[DISCUSSION OMITTED.]

(Grand Jury's Exhibits 37A, 134, 135, 136 admitted into
evidence.)

[DISCUSSION OMITTED]

--oOo--

COURT REPORTER'S CERTIFICATE


This is to certify that I, JENNIFER L. HUNT, CSR, a Certified Shorthand Reporter of the State of California, was present at the time and place the foregoing proceedings were had and taken in the within matter; that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings and afterwards caused my said shorthand writing to be transcribed into typewriting. Further, pursuant to CCP237 all reference to jurors by name has been redacted.

The foregoing pages beginning at:

1 through 143

are certified to be a complete transcription of said stenographic shorthand notes.

DATED: THIS 6TH day of JUNE 2022



JENNIFER L. HUNT, CSR 10735
OFFICIAL REPORTER

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IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

BCSC-2019-GJ-01

REDACTED
CERTIFIED
COPY

_____/

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, MAY 14, 2019

VOLUME 7

OROVILLE, BUTTE COUNTY, CALIFORNIA

JENNIFER L. HUNT, CSR 10735, OFFICIAL COURT REPORTER

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OROVILLE, BUTTE COUNTY, CALIFORNIA

TUESDAY, MAY 14, 2019

8:30 a.m.

(Confidential Grand Jury Proceedings)

-oOo-

[ROLL CALL OMITTED.]

[DISCUSSION OMITTED.]

GRAND JURY FOREPERSON: Raise your right hand.

ZEKE LUNDER

having been called as a witness in
the matter now pending, having been first
duly sworn, testifies as follows:

THE WITNESS: I do.

GRAND JURY FOREPERSON: Thank you. Have a
seat, please.

EXAMINATION

BY MR. NOEL

Q. Please state your full name, spelling your last
name.

A. My name's Zeke Lunder, L-U-N-D-E-R.

Q. Mr. Lunder, what do you do for a living?

1 A. I'm a geographer. So I study wildfire. And
2 for the last 20 years, I've been working as a contractor
3 on forest fires, making maps for the agencies as part of
4 Incident Management teams.

5 Q. Do you work for yourself or are you with a
6 company?

7 A. I work for company called Deer Creek Resources,
8 which is owned by Fire Storm in Chico.

9 Q. What is Fire Storm?

10 A. Fire Storm is a wildland fire contractor. So
11 we have contract firefighters, fire engines, and then the
12 mapping division, which also does planning. And we also
13 do prescribed burning.

14 Q. And what is your position within Deer Creek
15 Resources?

16 A. Well, I was the founder. I started the company
17 in 2011, and I sold it. And now I'm a consultant to the
18 new owner.

19 Q. You said you do mapping. Can you explain what
20 you mean by that?

21 A. Yeah, I got a degree in map making from Chico
22 State in the mid '90s. And that was right about the time
23 that digital mapping started being used during fires. So
24 in the late '90s they kind of realized -- they were just
25 taking topographic maps before then and drawing colored
26 lines on them and someone would come out to the fire

1 camp, copy the colored lines from the main map on to 20,
2 30 different maps for the people the next day. And they
3 realized that you can use computers and do the same
4 thing.

5 So since then we've kind of helped build this
6 model of how fires get mapped. It's kind of got pushed
7 out to the whole country, but that technology kind of
8 started in California. And we kind of, as private
9 contractors, we took that out from California to places
10 like Oregon, Washington, Idaho, and we trained other
11 people. And so now there's kind of a national standard
12 for how fires get mapped.

13 So we go to the fires, we have trailers that
14 have offices in them, we set up in fire camp, we help
15 manage all the intelligence for the fire teams, make
16 their maps every night.

17 Q. What does the G-I-S stand for?

18 A. Geographic Information Systems.

19 Q. What is Geographic Information Systems?

20 A. Well, if you're familiar with CAD, computer
21 drafting, it's kind of like -- CAD is what engineers use
22 to draw blueprints. So GIS is kind of like the same
23 tools for a landscape scale. So we build -- we create
24 layers of information and we put them on to maps. So
25 it's basically a big spreadsheet that's tied to a map.

26 Q. In front of you you have what's been marked as

1 People's Exhibit 101. Do you see that?

2 A. Yeah.

3 Q. Are you familiar with People's Exhibit No. 101?

4 A. Yes.

5 Q. I'm displaying 101 on the big board. That's
6 the same thing you're looking at?

7 A. Yep.

8 Q. Did you make this image?

9 A. I did.

10 Q. Explain this image to us, what it shows.

11 A. All right. So this is a false color Land Sat
12 image. False color means that the colors aren't
13 necessarily what it looked like from a, if you were up in
14 space and our eyeballs were looking at the same scene.
15 You might see smoke and a few flames around the edge.
16 False color means that I use the heat signal from the
17 satellite to create colors that show the fire intensity.

18 So this is basically really similar to an image
19 you'd see, say, in Google Maps or any other aerial photo,
20 but instead of using the visible bands of light, we use
21 infrared bands.

22 So the satellites -- this is called Land Sat.
23 They've been around since the mid '70s. And they orbit
24 the earth on a near polar orbit, so that means they're
25 going north to south. And every 16 days this satellite
26 goes over a given spot on the ground. So it's really

1 commonly used for things like mapping vegetation, looking
2 at land change, mapping crops. And we don't usually use
3 this on fires because we don't usually get it. It's not
4 like something you'd see on a spy movie where you drive
5 the satellite over and look for the bad guy. This is
6 just routinely capturing imagery of the whole planet.
7 And it happened to pass over the Camp Fire on the first
8 morning. So we created this image from that.

9 This wasn't really an official part of the fire
10 mapping, this is something I made on my own time to put
11 out on our Facebook page to share information just on the
12 mechanics of how the fire is spreading, kind of a public
13 information service.

14 Q. First let's talk about the satellite. You said
15 the satellite is Land Sat 8?

16 A. Uh-huh.

17 Q. Does Deer Creek have their own satellite?

18 A. No.

19 Q. Does Fire Storm have their own satellite?

20 A. No.

21 Q. Whose satellite -- or to whom does Land Sat 8
22 belong?

23 A. It belongs to the tax payers. It's a NASA
24 asset.

25 Q. All right. How do you access information from
26 Land Sat 8?

1 A. It's available to the public through NASA
2 website, which is run by the United States Geologic
3 Survey. So there's a free log-in, and then you can get
4 in there and there's a map that shows the planet. And
5 you can zoom in and say I want to look for imagery that's
6 captured in the last five days of this particular area.

7 So I get on there, and then you download all
8 the raw data basically from the satellite.

9 Q. So it just happened that this satellite was
10 passing over Butte County on November 8th, 2018?

11 A. Right.

12 Q. And that was approximately 10:45 a.m.?

13 A. Yes.

14 Q. So you were able to access the data from the
15 satellite for November 8th, 10:45 a.m., and capture
16 imagery from the satellite of the Camp Fire?

17 A. Yeah.

18 Q. And then you put that imagery together into
19 this photograph?

20 A. Right.

21 Q. And can you explain again for us how it was
22 that you built the different imagery from the satellite
23 to make this photograph?

24 A. Yeah. Well, kind of mechanically, if you take
25 a picture on your cell phone or any digital camera,
26 there's three different sensors in your camera that

1 capture red, green, and blue light. And then those
2 values for every pixel, if you zoom in and you see an
3 individual pixel, there's three different bands there
4 that it's portraying, the red, green, and blue visible
5 light, which is kind of what our eyes perceive. If you
6 adjust the contrast on the photo in Instagram or anything
7 else, you're just basically changing the values in the
8 red, green, and blue bands.

9 So the only difference between a digital photo
10 and Land Sat is that instead of capturing three visible
11 bands, Land Sat captures eight. And they range from kind
12 of the infrared, which is like heat that we can't see, to
13 ultraviolet, which is the wave lengths are too, too short
14 for us to see. Bees see in ultraviolet. Pit vipers see
15 infrared. And we see in red, green, and blue.

16 So by mixing those bands, the infrared bands or
17 the heat bands, as if they're pixels, you know, every --
18 if you zoom in on this and you see individual pixels, on
19 Land Sat, you've got eight different options there, say
20 instead of just displaying red, green, and blue, I'm
21 going to display infrared, near infrared, and red. So by
22 -- the way, the field of creating satellite imagery is
23 called "remote sensing." And it's all kind of based
24 around this challenge we had, say, in the 1960s of
25 finding, say, missile silos in Siberia. Maybe then we
26 had black and white imagery. We'd just say show me

1 everywhere in this forest that we've got bare ground. So
2 it's a way that -- the math around this was all invented
3 around finding nukes in a forest; right? And so the math
4 really hasn't changed. And over time we've come up with
5 different recipes. So, say, like if I'm interested in
6 water temperature of the ocean, I can use thermoinfrared
7 bands, and I can stretch them out, and I can assign
8 colors to them. So it's similar to like the Hubble Space
9 Telescope; right? It's a radio telescope. It -- you see
10 these beautiful pictures of this galaxy that's forming
11 pink clouds. It doesn't really look like that. It's
12 kind of a scientist's interpretation of the data to
13 create this, these colors.

14 So what we're doing here is we're using those
15 infrared bands. What I did to create this image, I have
16 a friend who works for the Bureau of Land Management, and
17 we were looking at another fire, and he came up with this
18 -- he said, "Hey, I did some research, and these are the
19 bands that you use that can see through the smoke and
20 show the heat of the fire." So I used his recipe
21 basically.

22 If you look at the same image in full color,
23 it's a really popular image that you may have seen, it's
24 really similar to this, but you can't really see the heat
25 as much. You see smoke and flames around the edges.
26 What this image was aiming to do was to see through that

1 smoke.

2

3 (Grand Jury Exhibit 101B was marked for identification.)

4

5 Q. Quickly, I want to move on to 101B.

6

7 A. Right. So this is the, kind of the scientist
8 explanation of what I just told you. Those bands 2, 3,
9 and 4, are the red, green, and blue that we see with our
10 eyeballs. So if you look at like a Google Maps image,
11 satellite image, they're just using those three bands, 4,
12 3, and 2. So we used bands 7, 6, and 5. So that's
13 infrared, different intensities of heat basically.

14 The deal with the heat is that, you know,
15 there's heat that you can see, you know, like when you
16 are driving along, you see radiant heat kind of simmering
17 off the highway or something. Then there's heat you can
18 feel, like the sun. There's different ways that heat
19 moves through the atmosphere, different wave lengths. So
20 these three different bands are picking up different
21 kinds of heat.

22 Q. So 101B shows the 11 bands, basically the 11
23 filters that the Land Sat 8 uses?

24 A. Yeah.

25 Q. And which ones did you use to create 101?

26 A. Seven, 6, and 5.

Q. Okay. So that would be short-wave infrared

1 S-W-I-R-T?

2 A. Uh-huh.

3 Q. You have to answer out loud.

4 A. Yes, sir.

5 Q. Bands 6, the short-wave infrared S-W-I-R-1?

6 A. Yes.

7 Q. And band 5, the near infrared, or N-I-R?

8 A. Yes.

9 Q. And so you took those layers and overlaid them,

10 you said, onto a map of the area?

11 A. Yes.

12 Q. Explain to us how you do that.

13 A. The imagery from Land Sat, when you get it, it

14 has coordinates assigned to it, so it's easy just to --

15 you can pick these three layers, computer colors them for

16 you, and drops in on a map where it would be on the

17 earth.

18 To create the oblique one, so oblique -- we'll

19 get to that, right? We're going to go to the next

20 exhibit.

21 Q. Yeah, we'll do that. And let me just back up

22 on this one more time. This is information that, the

23 bands and everything, came from the

24 usgeologicalsurvey.gov website on the Land Sat?

25 A. Yes.

26

1 (Grand Jury Exhibit 101C was marked for identification.)

2

3 Q. Okay. So 101C.

4 Mr. Ramsey's pointing out, this far column
5 resolution --

6 A. Right.

7 Q. -- can you explain to us what that means?

8 A. Yeah. Resolution is, it's kind of the same as
9 a digital photo. If you -- you know, a low resolution
10 photo might be like a little profile picture on someone's
11 Facebook page that's a hundred pixels by a hundred
12 pixels. High resolution would be full color like screen
13 saver.

14 The resolution in this case is 30 meters, which
15 means that every pixel in this image is about a hundred
16 feet by a hundred feet, or quarter acre. So almost all
17 the data is captured at 30 meters. There's what's called
18 a panchromatic band, captured at 15 meters, which is
19 black and white. And the other ones that we didn't use
20 are a hundred meters. Basically what that means is it
21 averages the light values within that hundred foot square
22 area to figure out what it, what's going on there. And
23 it tells of kind of the accuracy. We might have a spot
24 fire out here that's four pixels across, and we say,
25 well, that's probably within 100, 200 feet of where that
26 actually happened on the earth.

1 Q. Thank you.

2 Now moving on to 101C. Explain to us what 101C
3 is.

4 A. Okay. So these images are the ingredients,
5 basically, that I used to cook this image pie. This is
6 the near infrared. So -- well, you can see on here a
7 bunch of smoke and see a couple little light spots where
8 there's some heat not sheltered by smoke. So basically
9 this wave length of infrared, it can't really see through
10 the clouds. The clouds kind of absorb the amount of heat
11 that was coming out on this band. This isn't like the
12 most sensitive band that we've got.

13 Q. All right.

14 A. This is what the imagery looks like when I get
15 it before I stack it up.

16

17 (Grand Jury Exhibit 101D was marked for identification.)

18

19 Q. And 101D?

20 A. Okay. This is the, this level of infrared sees
21 better through the smoke, shows the most intense fire.
22 And in the center of that image are all the burning homes
23 of Paradise, every little dot.

24 Q. You're talking about in here?

25 A. All that. Every one of those hot spots is
26 basically an intense piece of fire. Most of them are

1 burning houses or commercial businesses.

2 Q. So -- and you said this is the 30 meter
3 resolution?

4 A. Yeah.

5 Q. Or approximately 100 by 100?

6 A. Right.

7 Q. So not much bigger than each house --

8 A. Right.

9 Q. -- would be?

10 So a house would pretty much be most of a
11 pixel?

12 A. Right.

13

14 (Grand Jury Exhibit 101E was marked for identification.)

15

16 Q. All right. And 101E?

17 A. So that's the most sensitive infrared band. So
18 it's just showing intense heat over most of what has
19 already burned. That's the composite. So if you can go
20 back to the last one real quick.

21 Q. Okay.

22 A. One of the questions that -- so we use this
23 imagery with, with the Incident Command Team, once we had
24 it, to talk about -- we often map the fire progression
25 with the teams. And it's of great interest to us because
26 if we're trying to create fire behavior models later for

1 predictive, for planning, we want to know -- we use
2 imagery and information like this to calibrate a model.
3 So we'd say like, "Okay, well, given that we know we had
4 50-mile-an-hour winds at Jarbo Gap and the fire spread
5 this far in four hours" -- our spread model for
6 predicting future fires, we try to run those models to
7 calibrate them against things that have actually happened
8 in the past.

9 So one question was, that big spot fire on the
10 left, if that was really a spot fire or if that was just
11 an area of the most intense smoke, because that was the
12 area of the most intense smoke. So one question we tried
13 to look at with this imagery was whether or not there was
14 fire across that entire area between the big spot fire on
15 the left and the main fire. But using this most
16 sensitive band, we feel like we couldn't see any heat in
17 there.

18 Q. Let's talk about the image itself. All of
19 these images, 101, 101C, D, and now E, this is all the
20 same image; correct?

21 A. Yes.

22 Q. Just looked at basically through a different
23 filter in each one?

24 A. Yeah.

25 Q. And give us an idea of what we're looking at
26 geographically right here.

1 A. Okay. On the upper right, kind of a nose
2 there, that's around Pulga.

3 Q. This right here?

4 A. Yeah. Coming left of that is Flea Valley
5 Creek. Along the top of the image is mainly Sierra
6 Pacific Industries plantation and land that burned in
7 2008 then was salvage logged. So baby trees.

8 Kind of in the center of the image, there's
9 kind of like a curl or like an ear hole.

10 Q. Right here?

11 A. Yeah, right at the bottom there where it kind
12 of mixes up. That's Lake Concow. So the black area is
13 Lake Concow.

14 What the image shows is that the fire -- the
15 most intense part of the fire is kind of directly through
16 the middle. And, really, things are already cooling off
17 in this image. They're already cooling off on the
18 right-hand side of the fire.

19 Q. All right. I'm sorry. We just had the
20 PowerPoint copies for the jurors delivered that we
21 couldn't do this morning because of the power outage.
22 Take a quick break.

23 (Pause in proceeding.)

24 Q. (By MR. NOEL) Do you want to come down? It's
25 much easier. I can have you draw on this and explain it.
26 You know this stuff better than I do. You can just use

1 your finger to draw on it, mark what's there.

2 A. Okay. That's Lake Concow; Honeyrun Road, some
3 of Honeyrun Road. Lake Concow down here.

4 The main spread of the fire is, this is kind of
5 the most intense. This is the movement of the head of
6 the fire. So as the fire is spreading out, it's less
7 intense, because this isn't really the head, the wind is
8 still blowing this way. Lake Concow, it didn't burn;
9 there's still living trees here, but through here not
10 many because the fire really was hauling directly through
11 there. This is already starting to cool down at this
12 point.

13 Q. Okay. So we have to describe it for the court
14 reporter.

15 A. Okay.

16 Q. So you've marked on the map a circle up here to
17 Pulga?

18 A. Uh-huh.

19 Q. You've marked the outline basically of Lake
20 Concow?

21 A. Uh-huh.

22 Q. And then you've put a circle around the
23 Honeyrun, the spot fire off on the left side, marked that
24 as Honeyrun.

25 Now, you have an arrow going from right to
26 left, kind of a downward angle, from Pulga towards the

1 bottom left corner?

2 A. Right.

3 Q. And one thing, which way, which way is north in
4 this map?

5 A. North is up.

6 Q. Okay. So north is straight up. So we're
7 looking north-south. So you're talking about from Pulga
8 your arrow going southwest?

9 A. Generally, yes. West Branch of the Feather
10 River comes down through here. Can't really see it
11 within the fire, but it goes down through the center,
12 from north to south.

13 Q. And you've drawn a --

14 A. Red line.

15 Q. A red line through the, basically right down
16 the middle of the page, kind of wandering through the
17 page, marked as the West Branch, "FR" for Feather River?

18 A. Yes. Spot fires out here are kind of as far
19 out as -- they're across the Skyway at this point. So
20 Skyway -- can't quite -- Skyway is generally through
21 there.

22 Q. So you've drawn another red line which you've
23 marked as "Skyway"?

24 A. Yeah. This is another drawing of Magalia
25 Reservoir.

26 Q. And you're drawing the outline of the reservoir

1 with "Mag Res"?

2 A. Yes.

3 Q. Up above it?

4 A. Yep.

5 Q. All right. Let's make sure we save this before
6 we move on.

7 All right. Successfully saved. We'll get that
8 printed out later, as that will be 101E1.

9

10 (Grand Jury Exhibit 101E1 was marked for identification.)

11

12 A. All right.

13 Q. All right. Going back to 101. There we go.
14 Now we're back to 101, the original image that we started
15 off with.

16 A. Okay.

17 Q. So the images we just looked at, 101C, D, and
18 E, you said you stacked those on top of a, of a,
19 basically a map of the area?

20 A. The map is -- this is actually the composite of
21 those three bands. The map is kind of embedded in those
22 other three layers. This is a map created from those
23 three layers.

24 Q. Where does the color come from?

25 A. The color comes from assigning each layer to a
26 red, green, and blue layer. So if you want to take a

1 picture on your camera, your camera scans red, green, and
2 blue and sends those pixels to your screen. And the red
3 layer, if it's black on the imagery, it comes back as, as
4 there's no red there. If the red layer is the highest
5 value, then it comes back as bright red. And your screen
6 on your device uses those three different colors to
7 create a color on your screen that matches reality as
8 close as we can do it.

9 So I assigned the band 7 to the red layer. So
10 now I'm just treating this like a photograph; right? So
11 I'm just putting in those three layers into the red,
12 green, and blue layers in Photoshop basically and
13 creating a color composite. So it's just a way of
14 colorizing those three ingredient layers I had to create
15 this portrayal.

16 So, like I said, if you flew over this and
17 looked with your naked eye, it probably wouldn't look
18 like this except that you'd see the -- outside of the
19 smoke you'd see some flames and, you know, looked like.

20 What false color composites are, are using the
21 satellite imagery to create. This could have been purple
22 and yellow and green if I wanted to make it look that way
23 if I thought that told the story better. But basically
24 I'm just taking those different bands and using them to
25 create a visual. In this case, I'm using the hottest
26 colors I can to show the most intense fire, and I'm using

1 less intense collars for lower intensity. And then
2 trying to get colors that match the vegetation basically.

3 So I'm not actually painting with pixels or
4 anything, I'm just colorizing the satellite imagery in a
5 way that portrays it graphically to show best the
6 contrast between the heat and the vegetation.

7 Q. Great. Let's move on to 102.

8 You have in front of you Exhibit No. 102.

9 A. Okay.

10 Q. Another similar image. Can you explain to us
11 what this is and how you built this?

12 A. Yeah, so once I had that image of the overhead
13 view looking down on it that we, the image we just talked
14 about, I used Google Earth. And Google Earth you can
15 create map overlays. Basically you can bring a map into
16 Google Earth and you can kind of stretch it to match the
17 landscape, then you can look at it in 3D.

18 So I brought it into Google Earth because it's
19 the easiest way to make this kind of oblique view where
20 you're looking across the landscape at an angle. And
21 once it's in there, I can take different angles.

22 So I picked this angle just to kind of show
23 basically the effect of the topography. And, you know, a
24 lot of what we do on our Facebook page, Deer Creek
25 Resources Facebook page, is kind of intended as a public
26 information resource, and also because it brings traffic

1 to our Facebook page, and we're in the business of
2 teaching people about fire and doing fuel breaks, and
3 doing labor of ground fire. So I have support from my
4 boss to do stuff like this during fires because, one, it
5 helps people understand what's going on in our community,
6 and also because it creates traffic to our Facebook page.

7 So these I created as part of a story that I
8 did on our Facebook page. Actually, this was on my
9 personal Facebook page. Right after the fire, "Hey, this
10 is what happened. Here's, here's a story of how the fire
11 started, why it spread like it did."

12 So I picked this angle just because it shows
13 really well the story of the fire starting down around
14 Pulga and being funneled by the topography and the wind
15 up this Flea Valley Creek and spreading. This is
16 Paradise on the top of the image, Concow in the middle,
17 and Highway 70 running down in the foreground.

18 Q. So this is, basically this is the same image
19 that we're looking at in 101, it's now just been overlaid
20 on top of a Google Earth map --

21 A. Yes.

22 Q. -- correct? And changing angles?

23 A. Right.

24 Q. How about 103?

25 A. Same story. And the reason that I did this was
26 to be able to show the roads and the landmarks. Also, I

1 did this particular perspective because I wanted to show
2 that by 10:45 in the morning that all the major routes
3 out of town are being impinged upon by fire. So as part
4 of this post, you know, it was interesting, all these
5 comments, people saying like, "Oh, my God, I was right at
6 Pearson and Clark."

7 But basically I picked that perspective
8 because, yeah, it shows the West Branch of the Feather
9 running right through here; shows how wide the fire was
10 when it crossed into town; shows how Pentz Road is
11 completely within the fire; how spots fires are impinging
12 on Clark, on the Skyway, cutting off Skyway at Clark, and
13 cutting off the Skyway above Pentz Road. I thought this
14 really told the story of why the evacuation was so
15 difficult, so that's why I picked this particular
16 perspective.

17 Q. 104. Can you explain this one for us?

18 A. On this one, the West Branch of the Feather
19 River is running right down through here, on the
20 right-hand side of the image. This one I think just
21 shows -- it's a snapshot of all those houses burning. So
22 that's, to me, when we picked this perspective is --
23 also, this shows just how far the spot fires progressed,
24 all the way into Meadowview Creek at this point. You can
25 see things like this mobile home park beginning to burn.
26 So I think it's just, there's a lot going on in this

1 image and wanted to have one that was a little closer in
2 right on the action of the fire burning in Paradise.

3 Q. And, again, you created this by putting 101
4 into Google Earth, overlaying it over the map, and then
5 changing angles?

6 A. Yeah. Yeah, just to give people a variety of
7 perspectives. Everyone reads maps differently. And by
8 creating different angles and different ways of looking
9 at the same information, it increases the number of
10 people that can understand what you're trying to say.

11 Q. All right.

12 I have no further questions. If the jurors
13 have any questions for you. You can sit back down --

14 A. Thank you.

15 Q. -- or we can pull it up. Wait real quick while
16 they're writing their questions down, then they'll hand
17 them off, then Sergeant at Arms collects them and gives
18 them to us.

19 (Counsel and Grand Jury Foreperson confer).

20 Q. (By MR. NOEL) We have a question about 101C.
21 It says Exhibit 101C shows two distinct columns of smoke,
22 one originates at about 9:00 o'clock and extends
23 southwest and a second originates at about 12:00 o'clock
24 and extends southwest as well. None of the other
25 exhibits portray this. Can you explain what is seen in
26 101C and why it does not show up in the other photos?

1 And you can come up, you can approach the board
2 again if it's better for you.

3 A. Okay. Talking about this and this?

4 GRAND JUROR #4: Rotate the picture 90 degrees
5 to the left. That's the perspective we have in the book.

6 MR. NOEL: Can I see your packets real quick?
7 It's the same.

8 THE WITNESS: Well, so you guys can -- what
9 we're seeing there with the smoke or why you don't see
10 those in the infrared? Basically the other images, we're
11 using those to create the heat. The orange and yellow in
12 the composite image is based on the heat. And so it's,
13 this image is intended to filter out the smoke. So the
14 reason you don't see any smoke on the other two images is
15 because, because we're kind of using x-ray vision with
16 the other bands to see through the smoke.

17 GRAND JUROR #4: But do you see two distinct
18 columns of smoke?

19 THE WITNESS: Yes, I do. You're asking me why
20 I think they're there?

21 GRAND JUROR #4: Yeah.

22 THE WITNESS: I think it's got to do with the
23 fuel. The fire burned right through an area that burned
24 really hot. The head of the fire moved through an area
25 that burned really hot in 2008, so it was mainly
26 plantation of trees that are left 10, 15 feet tall, and

1 brush. And that stuff is kind of -- it went up like
2 kindling. And as the fire moved farther up into here, it
3 got into areas that hadn't burned as intensely in 2008,
4 hadn't been logged. So the smoke that you're seeing here
5 that's intense is the fire burning into heavier fuels,
6 like bigger, greener trees, not plantations and brush.
7 And I don't really -- I'm not as familiar with this area
8 down here, but the fire moved through a variety of fuel
9 types in that initial push ranging from brush, grass, and
10 ferns to, you know, mature trees.

11 Q. (By MR. NOEL) So Land Sat, the band 5, Land
12 Sat, band 5 we're talking about, this is the near
13 infrared radar; correct?

14 A. Right.

15 Q. You said this is the one that doesn't really
16 have the X-ray vision looking through the smoke?

17 A. Right.

18 Q. The others are able to filter out the smoke and
19 concentrate on the heat; right?

20 A. Heat, yes.

21 Q. But so when you get to the next, which is 101
22 -- whoops, wrong way -- 101D, now we're looking down
23 through the smoke, but you can still see on the, on the
24 periphery those smoke plumes extending out to the
25 southwest; correct?

26 A. Right.

1 Q. It's just not as prominent on this one because
2 it's looking at a whole different type of picture?

3 A. This is looking at most intense.

4 Q. And the same thing on 101D. Now we're looking
5 at the most intense, or the --

6 A. This is the most intensive one.

7 Q. But we can still see the smoke plumes coming
8 out, extending off the periphery.

9 And when you get back to 101, same thing?

10 A. Yeah. You can see a little bit of smoke here.
11 But, yeah, this is -- you know, I really worked on this
12 to get the smoke out of it. That's the reason that you
13 don't see much smoke in there.

14 Q. The difference with 101C is that it doesn't
15 have the X-ray vision, and it just looks at the smoke?

16 A. Right.

17 Q. And then one other question real quick. The
18 caption down here on the bottom, can you explain, can you
19 explain the caption? It's the same caption on every --

20 A. "This composite image shows infrared heat.
21 Some areas are obstructed by smoke." And I said that
22 because when we created this image we didn't know yet
23 whether or not there was heat in here that we couldn't
24 see because of the smoke. So that's kind of our
25 disclaimer. Because we didn't want to put this out and
26 say like authoritatively there was no fire in here. We

1 didn't know at that point.

2 And I still can't tell you that I know for sure
3 whether or not there was heat in here that we just
4 couldn't see because of the smoke. But based on talking
5 to people who were out there, the general feeling I got
6 in talking to people is that this is what it looked like,
7 and the smoke there wasn't -- you know -- we kind of
8 tried on the creating these images to pull as much
9 contrast as we could to see whether there was any heat
10 out there. And I couldn't see any heat out there. Given
11 these three bands, that's our best approximation.

12 MR. NOEL: Anything else? Anybody have any
13 further questions?

14 I have nothing further of this witness.

15 So you are excused.

16 THE WITNESS: Thank you.

17 GRAND JURY FOREPERSON: Do the admonition?

18 MR. NOEL: You have to do the admonition, I'm
19 sorry.

20 GRAND JURY FOREPERSON: Mr. Lunder, you are
21 admonished not to discuss or disclose at any time outside
22 of this jury room the questions that have been asked of
23 you or your answers until authorized by the Grand Jury or
24 the Court. A violation of these instructions on your
25 part may be the basis for a charge against you of a
26 contempt of Court. This does not precludes you from

1 discussing your legal rights with your own attorney.

2 Mr. Lunder, what I have just said is a warning
3 not to discuss the case with anyone except the Court,
4 your lawyer, or the district attorney. You understand?

5 THE WITNESS: Yes.

6 GRAND JURY FOREPERSON: Thank you. Now you're
7 dismissed.

8 [DISCUSSION OMITTED.]

9 (Lunch break taken.)

10 [DISCUSSION OMITTED.]

11 GRAND JURY FOREPERSON: Stand, raise your right
12 hand.

13

14 STACIE DOYLE

15 having been called as a witness in
16 the matter now pending, having been first
17 duly sworn, testifies as follows:

18

19 THE WITNESS: I do.

20 GRAND JURY FOREPERSON: Thank you.

21

22 EXAMINATION

23

24 BY MS. RICHARDS

25 Q. Good morning, Ms. Doyle. Can you tell the
26 Grand Jury your current employment.

1 A. I work with Pacific Gas & Electric.
2 Q. What is your position?
3 A. I'm a supervisor for Compliance and
4 Maintenance.
5 Q. And how long have you worked for Pacific Gas &
6 Electric?
7 A. I've been with the company since 1992, but I
8 became official PG&E in 1994.
9 Q. What was your first position where you worked
10 with PG&E in 1992?
11 A. I was a, at that time they called us "Kelly
12 girls." I was a temporary utility clerk for the company.
13 Q. And was that a position that dealt mostly in
14 customer service issues?
15 A. I was in customer service department, yes.
16 Q. What was your next position within PG&E?
17 A. I was hired in 1994 as a service representative
18 in customer service.
19 Q. Okay. And how long did you have that position?
20 A. Just about ten years.
21 Q. Okay. And then what was your next position
22 within PG&E?
23 A. I went to the local office as a customer
24 service representative.
25 Q. And approximately when did you have that
26 position until?

1 A. I worked in the local office in Stockton for
2 two years. And then I transferred up to Eureka,
3 California. And I worked in their local office for two
4 years. So I was in customer -- the local office for a
5 total of four years.

6 Q. Okay. And what position did you have after
7 that?

8 A. I was an operating clerk for the Transmission
9 Line Department in Eureka.

10 Q. When did you begin in that position?

11 A. 2008, possibly the latter of 2007.

12 Q. And how long did you have that position?

13 A. Until 2011.

14 Q. Okay. What did you do as an operating clerk
15 for Transmission Lines in Eureka?

16 A. As an operating clerk, the basic data entry.
17 So we enter records into the program that's called SAP,
18 which is the program that PG&E uses, and also filing.

19 Q. Okay. Is SAP an acronym?

20 A. Yes, it is.

21 Q. Do you know what it, do you know what it stands
22 for? That's okay.

23 A. I'm sorry. My apologies.

24 Q. And so, so you -- what sorts of documents did
25 you enter into the PG&E sort of record keeping systems as
26 an operating clerk for Transmission Lines?

1 A. As an operating clerk, we entered time,
2 payroll, for the crew. We would print out patrols and
3 inspections that were scheduled for the troublemen. We
4 would enter notifications or -- which is a work order.
5 And if there was something identified in the field, they
6 used to hand write it on paper and then the clerk would
7 enter it into electronic version of SAP.

8 Q. Okay. And I'll ask you some more questions
9 about some of the details about those records later in
10 testifying.

11 A. Okay.

12 Q. So after, after you were an operating clerk in
13 Eureka until about 2011, what did you do next?

14 A. I took a promotion and I became, at that time
15 what was called an "asset strategist."

16 Q. Okay. How long were you an asset strategist?

17 A. For the better part of five years.

18 Q. And what were your main roles as an asset
19 strategist?

20 A. As an asset strategist, what we do is we, we
21 handle the electronic side in SAP of the assets in the
22 field. So we --

23 Q. Let me ask you a question, too, just to
24 clarify. When you say "assets," what do you mean?

25 A. Assets for me are structures in the field,
26 meaning towers, poles, affiliated with line in the field.

1 Q. Okay. And I cut you off. You were explaining
2 what you do as asset strategy. I'm sorry.

3 A. So we also, as asset strategists, what we do is
4 we work with IT in the fall of -- so, for instance, for
5 2019, like in the fall of 2018 we do an SAP query as to
6 what patrols and inspections are upcoming, then we build
7 a calendar, a manual calendar, for each of the
8 headquarters throughout Transmission so they know what's
9 scheduled for the year to come.

10 Q. What was your coverage area as an asset
11 strategist? Did you have a geographical coverage area
12 that you, that you worked for?

13 A. Yes and no. So the regions were split north,
14 central, south; however, there were three of us and so we
15 shared responsibilities.

16 Q. Can you explain a little bit about the north,
17 central, south division at PG&E?

18 A. Yes. So the north has three headquarters.
19 It's Eureka, Table Mountain, and Sacramento. Central has
20 Victor, Concord, Lakeville, Underground, and Metcalf.
21 And then the south has Pismo, Moss Landing, Bakersfield,
22 Fresno.

23 Q. Okay. And so when you refer to a headquarters,
24 you're not talking about, you're not talking about the
25 corporate offices for PG&E, you're using it in a
26 different sense than sometimes people use headquarters.

1 Can you explain what a headquarters is? Like if you're
2 talking about Table Mountain Headquarters, what is,
3 what's there at Table Mountain?

4 A. So for Transmission, the headquarters are
5 basically the location where everybody shows up to work.
6 Table Mountain, as you asked, is -- it's a location
7 within a facility. And there's trailers, mobile wide
8 trailers, double-wides that are there. And that's where
9 the crew reports, the clerk reports, the troublemen
10 report, and the first line supervisors.

11 Q. Okay. And I sort of derailed you from
12 explaining your background, but I think that's helpful
13 for understanding how PG&E, PG&E operates.

14 After you were an asset strategist, what was
15 your next position in PG&E?

16 A. I was supervisor for the clerical for
17 Transmission Line.

18 Q. Okay. And when were you supervisor of clerical
19 for Transmission Lines?

20 A. I started on a rotation in 2016, thereabouts.

21 Q. Okay.

22 A. And then I became permanent, and I held that
23 position until January of last year.

24 Q. Okay. And when you were supervisor of
25 clerical, who, who were you supervising?

26 A. All transmission clerical.

1 Q. Okay. And what do people in transmission
2 clerical positions do?

3 A. They support the field and the crews of the
4 field. So --

5 Q. Is that, is that similar to what you were doing
6 in 2008 to 2011 in Eureka?

7 A. Yes.

8 Q. Okay. So you were, you were supervising people
9 who had a similar position to what you used to have?

10 A. Correct.

11 Q. Okay. And then as supervisor of clerical, who
12 did you report to?

13 A. Jennifer Brough (phonetic).

14 Q. What's her title?

15 A. It's changed.

16 Q. Okay. What was that back around 2016 to 2018?

17 A. Manager -- I'm not sure if it was work plan
18 strategy. I'm not sure. I apologize.

19 Q. What is her title currently?

20 A. She's still my manager, but I think it's just
21 operation. I'm not, I'm not sure of her exact title. I
22 apologize.

23 Q. No, that's fine.

24 A. She's my boss. That's her title.

25 Q. And is she currently still your boss?

26 A. Yes, she is.

1 Q. Okay. And what is your current position?

2 A. I am supervisor for Maintenance and Compliance
3 for Transmission Line.

4 Q. Okay. Have you had that position since January
5 2018?

6 A. Yes. Possibly the latter part of 2017.

7 Q. Okay.

8 A. Somewhere in there.

9 Q. What are your main duties as supervisor for
10 Compliance and Maintenance for Transmissions?

11 A. We -- my -- I have a team of three, they're
12 asset maintenance planners, but we used to be called
13 strategists. I have three of them that report to me. I
14 also have three program managers. So I have a team of
15 six. And my asset strategists, they are responsible for
16 maintaining the patrols and inspections to all of the
17 headquarters. We are responsible for my data requests
18 that come in. And we handle all of the audits through
19 the regulatory commission, the CPUC, and Cal ISO and WEK.

20 Q. Can you explain what those three regulatory
21 bodies are, just kind of basic picture for the Grand
22 Jury.

23 A. So the California Public Utilities Commission,
24 they audit us every year. The Cal ISO is the California
25 Independent System Operator. And there are several
26 utilities within the state of California. And WEK is

1 Western, Western Enterprise -- I forgot the acronym
2 meaning behind them, I apologize.

3 Q. That's okay. And are these the bodies that
4 send you data requests?

5 A. They do.

6 Q. Okay. And in your position have you gotten
7 pretty familiar with the types of records that PG&E keeps
8 for its transmission lines?

9 A. Yes.

10 Q. Okay. And are those the sorts of records that
11 you deal with daily in your work for PG&E?

12 A. Yes. If I don't deal with them daily, I have
13 at one time or another.

14

15 (Grand Jury Exhibit 140 was marked for identification.)

16

17 Q. Okay. All right. Let's see, so I am going to
18 show you a few different documents, and I'm going to ask
19 you some questions about them. I'm going to go to Grand
20 Jury Exhibit 140. And you've seen -- we met earlier
21 today, so you've seen this document before.

22 A. Okay.

23 Q. But I'll give you a copy so you have it in
24 front of you.

25 A. Thank you. That's a little blurry.

26 Q. You can read it a little bit better then,

1 because I'm going to ask you to actually read off the
2 document.

3 A. Okay.

4 Q. Do you recognize this document?

5 A. I do.

6 Q. Okay. What is it?

7 A. This is a Control Ticket for a patrol or
8 inspection.

9 Q. Okay. What kind of patrol or inspection?

10 A. This particular one is for a detailed
11 inspection.

12 Q. Okay. How can you tell that?

13 A. So if you look on your document, on the
14 left-hand side in the third paragraph down, "operation"
15 is highlighted. You'll see "operation 4," and then next
16 to it in bold black print, it says "transmission overhead
17 detailed inspection."

18 Q. Okay. And, let's see, on the very top --
19 actually, I'm going to go to the second line that says
20 "order 41980167."

21 A. Yes.

22 Q. What does that pertain to?

23 A. That's the order number that the crew utilizes
24 to charge their time to, and that we -- that my team, the
25 strategists, are able to track an SAP. Because that does
26 not get completed in SAP until the inspection is done.

1 So my team can run a query, again, open orders and it
2 would show that this is still open. So once this
3 inspection is done, the troublemen would hand it to the
4 supervisor. Once they sign it off, then they're giving
5 it to the clerk and the clerk would close it in SAP.

6 Q. Okay. I'm going to ask you sort of about the
7 whole kind of life span of this document.

8 A. Okay.

9 Q. Okay. You have in your hand the full Grand
10 Jury exhibit. It's, it's multiple pages --

11 A. Yes.

12 Q. -- separate? This is just the first page of
13 it; is that right?

14 A. That's correct.

15 Q. Okay. Who creates this Operation Control
16 Ticket?

17 A. SAP.

18 Q. Okay. And when you say SAP, you're, you're
19 talking about the database?

20 A. The program.

21 Q. Okay. What user -- I assume like a user is
22 also involved in telling SAP to create this document?

23 A. It's an option to print when, when the clerk
24 goes into SAP to print this, yes. So when you put -- in
25 SAP, the way the program works, you get the, you put in
26 the order number and then the program pops up and you get

1 a little pop-up box, and then you just highlight that you
2 want to print the object list, and then you hit print and
3 then these forms print out.

4 Q. Okay. When would a clerk have occasion to
5 print this?

6 A. Anytime prior to the patrol or inspection being
7 done.

8 Q. Okay. And then if you look at, it's a few
9 lines down, it says "Start date, August 30th, 2014," and
10 then "End date, August 31st, 2014"?

11 A. Uh-huh.

12 Q. What do those dates correspond to?

13 A. End date is the date that the patrol is
14 scheduled, so August 2014. The start date is just a
15 default of SAP. That is not a manual entry or any time.

16 Q. Okay. Are these, are these deadlines for when
17 this detailed inspection would occur?

18 A. So the August 31st, 2014, that's our, our own
19 internal deadline, PG&E.

20 Q. Okay.

21 A. According to the standard, we, as long as the
22 patrol or inspection is completed before the end of the
23 calendar year. But this is our internal guideline that
24 we set on here.

25 Q. Okay. And, and you said this is a detailed
26 inspection. Are there multiple types of inspections that

1 you would --

2 A. Yes.

3 Q. -- that you knew, you know about --

4 A. Yes.

5 Q. -- for transmission lines?

6 A. Yes.

7 Q. What are the types of inspections that you
8 would see?

9 A. There's a detailed inspection, there's an air
10 patrol, and there's a ground patrol, and there are
11 climbing inspections.

12 Q. Okay. I'm going to have you just briefly
13 explain the difference between these different types of
14 inspections.

15 Okay. Here we have "detailed inspection."
16 What is a detailed inspection and how frequently does
17 PG&E perform detailed inspections on 115 kV transmission
18 lines?

19 A. Okay. A detailed inspection is not based on
20 the voltage.

21 Q. Okay.

22 A. It's based on the cycle time of the asset.
23 Asset meaning wood pole, steel pole, or tower. So for a
24 wood pole, the cycle time is two years. For a steel
25 tower, the cycle time is five years for the troublemen.
26 And a climbing inspection from the tower department is

1 every 12 years. And they only climb the 500 kV.

2 Q. Okay. So this is a detailed inspection. So
3 for a tower, how frequently would the detailed inspection
4 occur?

5 A. Five years. Every five years.

6 Q. Okay. Is this a climbing inspection?

7 A. No.

8 Q. Okay. What does this kind of inspection
9 entail?

10 A. So a detailed inspection is done by a
11 troubleman. And the detailed inspection is where the
12 troubleman man goes asset to asset to do the inspection.
13 So it's boots on the ground, walking -- or arriving at
14 the asset, getting out, walking around, and doing a
15 visual onsite inspection, boots on the ground.

16 Q. Okay. And would a detailed inspection like you
17 see here on this Grand Jury Exhibit 140, would that
18 entail walking up to every tower that's on a particular
19 line?

20 A. It would be accessing every tower, yes.

21 Q. Okay. And, let's see, were there, would there
22 ever be times when a detailed inspection occurred when a
23 person might not be able to get to every tower in the
24 line?

25 A. Yes.

26 Q. Okay. And let me -- actually, I'm going to go

1 on to the next page of here. Actually, we'll go to --
2 actually, I'm going to go in order of the exhibit, and
3 I'm going to come back to that question, so don't answer
4 it yet. Okay. So we're going to go to page 2 of Exhibit
5 140.

6 So that is a "Transmission Line Inspection Data
7 Sheet." Are you familiar with this document?

8 A. Yes, I am.

9 Q. Okay. What is this document?

10 A. This is used by the troubleman to record any
11 findings or irregularities that they might have in the
12 field when they're doing a patrol or inspection.

13 Q. Okay. On this document then the inspector name
14 is (WITNESS #23); is that right?

15 A. Yes.

16 Q. Okay. Is it common for inspectors to split up
17 one inspection, or is it more common for one inspector to
18 do a whole line in a detailed inspection?

19 A. Both. And the reason, and the reason is, for
20 both is there are headquarters that are very small where
21 they only have one troubleman, and then some of the
22 larger headquarters have multiple troublemen. So I've
23 seen it on both occasions to where sometimes it's one or
24 sometimes it's multiple.

25 Q. Okay. I'm going to have you look down -- let's
26 see.

1 So we have here on the top line there's an
2 order number and then we have "Patrol inspect 10391
3 Caribou-Palermo Plus."
4 A. Uh-huh.
5 Q. What does that mean?
6 A. So patrol inspection is the description.
7 That's the description line in SAP. So that's a default
8 print. The 10391 is the line indicator for the
9 Caribou-Palermo. And then, of course, the line name.
10 Q. Okay. And you see down here it says "last line
11 last inspected," then it has a number "41815952"?
12 A. Uh-huh.
13 Q. What does that refer to?
14 A. That references the P-M from the previous year,
15 or the order number. I'm sorry, we call them different
16 things. The order number.
17 Q. And then we've got "Inspection Findings Data."
18 And there's some handwritten information in here. I'm
19 going to just go to the first handwritten line.
20 A. Okay.
21 Q. There's -- "date found" is "8/7/14" and then
22 "structure number 26215." What -- when it says
23 "structure number," what is that referring to?
24 A. That's the field indicator as to what asset
25 they're at.
26 Q. Okay. And do you know how PG&E comes up with

1 those numbers for how it names towers?

2 A. So the first set of numbers is the mile marker
3 to where, which mile the circuit -- the asset is located;
4 and the second, or the bottom number, the 215, is the
5 asset number itself, the structure number.

6 Q. Okay. And this Inspection Findings Data Sheet,
7 is this something that is put in a packet by the clerk
8 and then given to the person inspecting, so in this case
9 (WITNESS #23), before he goes out to inspect a line?

10 A. So a blank one of these is put in the packet.

11 Q. Okay.

12 A. Then once the clerk prints it out, they give it
13 to the supervisor. The supervisor hands out all of the
14 paperwork.

15 Q. Okay.

16 A. Yeah. The clerk is just the printer.

17 Q. Okay. And in those Grand Jury Exhibit 140 that
18 you have in front of you, are all of these papers
19 compiled together by the clerk and given to the
20 supervisor?

21 A. Yes.

22 Q. Okay. And then the supervisor gives that to an
23 inspector?

24 A. Uh-huh.

25 Q. And then what's the inspector do with it?

26 A. Goes out and performs the patrol or inspection

1 I hope.

2 Q. Does the clerk see this paperwork again after
3 the inspection?

4 A. When it's completed, yes. So once the
5 inspector completes everything, then they bring it in,
6 they turn it into the supervisor, supervisor reviews it,
7 looks at everything, then it goes to the clerk.

8 Q. Okay. And what does the clerk do with it?

9 A. So if there's findings, which is here, as you
10 see there --

11 Q. Yes.

12 A. -- the clerk will enter the tag information
13 that was written up and assign it an identification
14 number once it's in SAP. Then she'll record the
15 notification number on the data sheet. And then once the
16 data is entered, they put it in the line file.

17 Q. And what is a line file?

18 A. The line file is where the records are housed
19 at each of the headquarters for Transmission.

20 Q. And so where would the line file for the
21 Caribou-Palermo line be housed?

22 A. Table Mountain.

23 Q. Okay. All right. Then I'm looking now at the
24 next page, it's, which is Bates number 1207. And we have
25 tables with some object codes. Is this something that's
26 put in the packet for the inspectors to use?

1 A. I don't know if they're all in there. This is
2 just an SAP print. This is what we call FDA codes,
3 Facility Damage Action.

4 Q. Do you use these codes at all in -- have you
5 used these codes at all in any of the positions you've
6 had at PG&E?

7 A. Yes, but they're incorporated in SAP. So this
8 is, it's actually incorporated into the creation of the
9 notification as well.

10 Q. Okay. If you had a, if you had a broken piece
11 of hardware -- or actually -- okay. If you had a broken
12 piece of hardware on a transmission tower, do you know
13 which damage code that you would use for it?

14 A. Depends on the type of tower.

15 Q. Okay. Like a 115 kV line?

16 A. I apologize, not the voltage, but we have dead
17 end towers, we have suspension towers. There are
18 facility codes for each of them. But yes, you could
19 choose which tower according to where you were at and
20 check the box and check "broken" or "other" and put in
21 the long text of your findings indicating what you found.

22 Q. Did you, did you ever have issues of people
23 referring to certain things by different names? Like one
24 person would see a piece of equipment and refer to it by
25 one name, but another person might refer to it by
26 different name? Was that ever anything you recall

1 having?

2 A. Only between -- not between crews, but between
3 people that didn't understand transmission and the
4 transmission lingo. If -- so between two different
5 departments.

6 Q. Okay. In your experience, is it -- and
7 obviously you have -- you're not a lineman --

8 A. I'm not a lineman.

9 Q. -- isn't that correct? Okay. And -- but
10 you've been working in a lot of different positions
11 within PG&E?

12 A. True.

13 Q. So, in your experience, are there a lot of
14 differences between working on a transmission line and
15 working on like an electric distribution line?

16 A. Yes.

17 Q. Okay. Are there a lot -- and why do you say
18 yes?

19 A. So transmission is higher voltage.

20 Q. Okay.

21 A. Transmission circuits affect a lot of -- so if
22 we lose a transmission circuit or if there's work being
23 done on a transmission circuit, it's not necessarily
24 going to make me lose power at home. But if distribution
25 loses power like during a rain storm, I'm going to lose
26 power at home. So the customer level is different.

1 There are quite a few variances between transmission and
2 distribution.

3 Q. Okay. Are there other differences in how parts
4 are referred to and what kind of parts are on the
5 equipment in a transmission line versus -- or
6 distribution?

7 A. That I can't answer, I'm sorry, because I have
8 never worked for Distribution.

9 Q. That's fine. If I ask you a question that you
10 don't know about --

11 A. I'm doing my best --

12 Q. -- say, "I don't know about this."

13 A. Okay.

14 Q. I'm going to move on to Bates 1208. Do you
15 recognize this page?

16 A. I don't recognize this page, but I can tell you
17 what it looks like.

18 Q. Okay. What does it look like?

19 A. This is an Excel export print of SAP, and I
20 would assume that this looks like a report of the open
21 notifications against the circuit.

22 Q. Okay. When you say "open notifications," what
23 are you referring to?

24 A. So when the troubleman is going to go out and
25 do a patrol or inspection, a lot of times he'll ask the
26 clerk or the clerk had will print out existing tags that

1 are in the system against that circuit so that the
2 troubleman has visibility as to what's already been
3 identified. And if you -- well, you'll see later in the
4 document -- but there's the boxes that he can check where
5 that he checked the preexisting condition or found
6 something that wasn't written up already. So a lot of
7 times this document would be provided to give him
8 visibility as to what's already existing.

9 Q. Okay. So just to look at the first row,
10 there's a long number starting with "103." What does
11 that number refer to?

12 A. That's the notification number.

13 Q. Okay. And then there's some dates. Do you
14 know what those dates refer to?

15 A. You know, the head is cut off.

16 Q. Okay. Yes, it is.

17 Okay. So -- and then this line later on --
18 getting used to it -- later on we see "Caribou-Palermo
19 15120," and it looks like -- it's a little cut off, but
20 it looks like "replace connectors"?

21 A. Replace connectors.

22 Q. So is it true that that is, that is, that's an
23 issue that somebody saw on the line at some point, it was
24 put in SAP, and now it's been populated in this spread
25 sheet so that somebody can go look at it when they
26 perform the inspection?

1 A. Yes.

2 Q. Does that fairly summarize?

3 A. That fairly summarizes it, yes.

4 Q. So is this document something that the
5 inspector would have with him while he's, you know, in a
6 detailed inspection, while he's going asset to asset
7 where you have this document?

8 A. He could. It's not a required document for his
9 inspection, but yes, he very well could have this.
10 Because I know a lot of the headquarters, a lot of
11 troublemen ask for it.

12 Q. Is he required, in an inspection, to check out
13 these, to look at these conditions during the inspection?

14 A. He's required to look at the asset during the
15 inspection.

16 Q. Okay.

17 A. And there is a place, there's boxes on the form
18 that says "preexisting condition checked, no new
19 problems." So there is, there are positions that he can
20 indicate.

21 Q. Okay. Is he -- I'll ask the question a
22 different way, but is he, is he -- would a lineman or an
23 inspector be required to check on each of the preexisting
24 conditions when he's actually looking at the assets? Or
25 is that just a -- I guess my question, because you said
26 he doesn't have to take this form, so I --

1 A. Right.

2 Q. The --

3 A. This isn't a required document. When you look
4 in the manual, it's not required, but a lot of them did
5 take it out because it's, it's itemization. I mean, it
6 helps you to see what you have out there --

7 Q. Right.

8 A. -- so that we don't write up duplicates.

9 Q. Okay. I see. Okay. So this is, this is -- is
10 your understanding that this document is to -- it's not
11 to tell a lineman, "Hey, check on this condition," it's
12 to make sure the lineman doesn't just keep reporting the
13 same condition that we already know about?

14 A. It's for both.

15 Q. It's for both.

16 A. But being not required, they could utilize it
17 to say, "Oh, I looked at these existing conditions." And
18 they could also state, "Okay, well, don't write it up,
19 there's already a tag for it."

20 Q. Okay. So if a lineman didn't take this, is
21 there -- if a lineman didn't take this during his
22 inspection, is there any way he would know about any of
23 the preexisting conditions during the inspection other
24 than if he just remembered them?

25 A. Not to my knowledge, huh-uh.

26 Q. Okay. Let me go forward. Now we're at

1 Transmission Line Object List. And this is Bates number
2 1209.

3 A. Okay.

4 Q. And I think you mentioned this earlier. What
5 is this document for?

6 A. So this is an object list. And what this does
7 is this gives the troublemen the ability to indicate
8 whether, as he inspects -- there you go -- as he inspects
9 each of the assets whether it was completed, meaning he,
10 he inspected it with no problem in the first box; the
11 second box is he completed it and had a new finding; or
12 the third box was that he validated the preexisting
13 condition checked or that he was not able to inspect on
14 this patrol or inspection.

15 Q. Okay. When would a person check the "not
16 inspected this patrol" box?

17 A. If he was not able to inspect the asset to
18 which was due.

19 Q. Okay. When -- and what circumstances would
20 cause that to happen?

21 A. Many. But I can give you examples, if that's
22 what you want.

23 Q. The most common ones you see.

24 A. Right now, snow.

25 Q. Okay.

26 A. There are some assets that are eight feet under

1 snow, and we can't see the bottom five feet of the
2 structure.

3 Q. What are some other reasons?

4 A. Flooding. Customer; customer won't allow us on
5 the property.

6 Q. Okay.

7 A. I'm trying think what else. Those are some of
8 the common ones.

9 Q. Okay.

10 A. Environmental.

11 Q. What does that mean?

12 A. It's a certain type of the year where there's
13 rare beetle or something harvesting, and we're not
14 allowed access per State of California.

15 Q. Okay. And if any of those cases, if any of
16 these circumstances you described were an issue, the
17 inspector checks the "not inspected this patrol" box, and
18 then what happens after that?

19 A. Then they should follow-up with a nonroutine
20 patrol to complete that asset.

21 Q. Okay. I've got it. Two more pages of that
22 document up here. Bates 1252 and 1253. We skipped ahead
23 a little bit.

24 A. Say that one more time.

25 Q. Oh, we're -- so we are on -- this might be
26 easier -- page 45 of the Transmission Line Object List.

1 A. Got it.

2 Q. All right. Okay. So I'm just going to go
3 down, I'm going to look at bottom of the page, "Tower,
4 27/222 lattice steel tower."

5 A. Yep.

6 Q. What box is checked there?

7 A. "Preexisting condition" checked.

8 Q. Okay. Then in the notes what does it say?

9 A. 02 survey C, as in Charlie, 039720.

10 Q. Okay. What does that refer to?

11 A. I don't know.

12 Q. Okay.

13 A. I'm sorry, that was prior to me.

14 Q. Okay. That's fine.

15 A. They did some sort of survey I'm thinking.

16 Q. Okay. From this, from looking at this
17 document, can you tell whether the inspector during this
18 inspection found any other, any other problems with the
19 tower?

20 A. From this specific document, no, I cannot tell
21 you that.

22 Q. Okay. He didn't report any? Did he report
23 any --

24 A. Not on this particular page.

25 Q. -- problems?

26 A. Can I go back to the data sheet? Is that okay?

1 Q. Yes.

2 A. Not on the finding sheet, so I will say no.

3 Q. Okay. All right. Let's see, I just have a few
4 more questions about --

5 A. That's okay.

6 Q. -- about the, about the detailed inspection we
7 were just looking at.

8 So you said it's -- a detailed inspection is on
9 the ground, it's asset to asset?

10 A. Correct.

11 Q. So, and you said sometimes, sometimes a lineman
12 can't get to every asset for various different reasons;
13 okay? Are there situations -- have you seen situations
14 where a lineman can't get within a few feet of the asset
15 but he's able to try to inspect it from equipment from
16 far away, maybe with binoculars, or a telescope, or
17 high-powered camera, would that count in your experience
18 as a detailed inspection?

19 A. Okay. So not to be rude, but it's not a
20 lineman. A troubleman does these.

21 Q. Yes.

22 A. Because I don't want you to confuse them. So
23 linemen do the repairs; troublemen usually find. There
24 have been instances where a lineman will go out with a
25 troubleman, and that's if they've got pulled off due to
26 emergency or storm, but usually it's a troubleman here;

1 okay?

2 Q. Thank you for correcting me.

3 A. No worries. And then have I seen an instance
4 where they're within a few feet of the structure? Yes.
5 And that's common, because they're not climbing the
6 structure. So usually they'll do the base test -- and
7 the troubleman would be more experienced to tell you
8 this, this is just what I hear, but they do scope.

9 Q. I'll stop you here. If you're just testifying
10 off of what you hear, you can just tell me.

11 A. I've never actually done an inspection, so you
12 know --

13 Q. That's fair.

14 Are you aware if there are any requirements for
15 how close a troubleman has to get for it to actually be
16 considered a detailed inspection?

17 A. I am not. I'm sorry. I don't know if that's
18 in the manual or not.

19 Q. Okay. And when you refer to the "manual," what
20 are you referring to?

21 A. My Bible. It's -- we have an *ETPM Manual*, and
22 -- it's the *Electric Transmission Preventative*
23 *Maintenance* -- and it's basically our standard. It's how
24 we answer to the regulatory commissions on the
25 guidelines.

26 Q. You refer to that frequently?

1 A. It's my Bible. I use it every day. If I don't
2 know the answer, that's where I go to look.

3 Q. Okay. Great.

4

5 (Grand Jury Exhibit 141 was marked for identification.)

6

7 Q. I'm going to show you now Grand Jury Exhibit
8 141. Do you recognize this document?

9 A. Is that the one I have in front of me?

10 Q. Yes. Oh, no, it's not actually. I have a
11 paper copy of it.

12 A. Thank you.

13 Q. I've also got it up on the board.

14 A. I've seen this. Not this particular one, but
15 I'm familiar with the document.

16 Q. Okay.

17 GRAND JUROR #15: When you're referring to
18 something on the chart, could you zoom into it? Because
19 it's not readable on here. And so if you zoomed into
20 that, we could see it better --

21 MS. RICHARDS: I'll try to do a better job.

22 GRAND JUROR #15: -- when you're speaking to
23 the witness about a particular thing.

24 MS. RICHARDS: Let's zoom in. Is that better?

25 GRAND JUROR #4: Helps all of us.

26 MS. RICHARDS: I'm sorry, what?

1 GRAND JUROR #4: Helps all of us.

2 MS. RICHARDS: Don't hesitate to raise your
3 hand and tell me if I -- if you can't see. I apologize
4 for that. And let me know if you need me to go back and
5 show you anything. And we'll have copies, too, of some
6 of the exhibits.

7 Q. (By MS. RICHARDS) So we're at the top of
8 Exhibit 14 -- 140, I believe.

9 A. 141.

10 Q. 141, okay. And what, what document is this?

11 A. This is a Transmission Air Patrol.

12 Q. Okay. And how -- so we've talked about
13 detailed inspections are every five years?

14 A. Uh-huh.

15 Q. How frequent are air patrols?

16 A. Every year, off cycle.

17 Q. Okay. What do you mean by "off cycle"?

18 A. So, as I stated earlier, so a wood pole or wood
19 circuit is every two years, meaning we detail it every
20 two years; therefore, every other we're going to patrol
21 it. And the same thing for steel. Meaning that we
22 detail inspect that every five years; so every off year,
23 we'll patrol it. So there's four years of patrols, then
24 they detail.

25 Q. Okay. And are, are these done, are these air
26 patrols done by a helicopter?

1 A. Yes.

2 Q. Okay. And, let's see, we went in some detail
3 over the ground inspection, or the detailed inspection
4 document. Is this Operation Control Ticket for an
5 overhead inspection or overhead patrol different in any,
6 in any major way? Well, that's not very clean. Let me
7 rephrase that.

8 Let's just, we'll get into details.

9 Okay. So this Operation Control Ticket is for
10 a overhead patrol. And here we have a start date,
11 8/30/2018, and end date, 9/30/2018. Are these internal
12 deadlines from PG&E --

13 A. Yes.

14 Q. -- again?

15 And are there ever times when PG&E is unable to
16 make its internal deadlines?

17 A. Yes.

18 Q. Okay. And then what happens?

19 A. So if for some reason we sent out a schedule,
20 and January is a good month because there might be a
21 patrol or inspection that's due January, but the crews
22 were called off and they took the troubleman due to storm
23 response or something, they would ask for an extension.
24 So at that case, there would be a request to the
25 supervisor, the supervisor would then get the approval
26 from the superintendent, and then once the superintendent

1 approves, my group would go in and change the date based
2 on the approval.

3 Q. Okay. And are there, are there ever any times
4 when, ever any times when the troubleman can't get to
5 the, can't get to the inspection by PG&E's deadline and
6 then they also can't get to it by the regular -- any
7 regulatory deadline that may exist?

8 A. I have not seen that happen yet. Not since
9 I've been in Transmission.

10 Q. Okay. And if that happened, if you saw that
11 happen, do you know what sort of repercussions there
12 would be or what kind of, what the result would be?

13 A. I don't know the repercussions, but I do know
14 that we have a self-reporting system in place to where if
15 we were going to miss a requirement as regulated to us,
16 we have a self-reporting system that would take place.

17 Q. Okay. Do you know who is in charge of that
18 self-reporting system?

19 A. I can find out for you. But it would be -- so
20 if I were to be aware of it, so if my team were running
21 reports and, say, we saw something that was not going to
22 make the calendar year to which it was due, they would
23 bring it to my attention, I would take it to my manager,
24 who would then take it to senior leadership, then it
25 would go from there. I have never had it happen yet.

26 Q. Okay. Let's see. I'm going to -- here we have

1 Transmission Line Inspection Data Sheet.

2 A. Okay.

3 Q. And let me get the number here. It's PG&E Camp
4 Grand Jury 185. Is this part of the Overhead Patrol
5 Inspection packet?

6 A. Yes, it is.

7 Q. Okay. And there's an inspection findings data
8 here, and there's two entries.

9 A. Correct.

10 Q. You have -- looking at the packet you have in
11 front of you, the Exhibit 141, can you tell if there are
12 any additional, can you tell if these are the only two
13 findings of issues on this line that was inspected?

14 A. Are these the only two findings that were
15 reported from this patrol?

16 Q. Yes.

17 A. Yes, I would say yes, because there's only two
18 listed. But there were preexisting conditions noted.

19 Q. Okay. And I'll go back to those. And are
20 those what you see in the chart on Bates 184?

21 A. Uh-huh.

22 Q. Okay. So we've got three preexisting
23 conditions, and then we've got two new conditions?

24 A. Correct.

25 Q. Okay. All right. I'm going to go forward.
26 And then I'm going to just go through these a little

1 quickly.

2 We have, we have Bates 186. This is the same
3 object code charts that we saw before?

4 A. Yeah. Uh-huh.

5 Q. What did you refer to this as?

6 A. It's the FDA codes, Facility Damage Action.
7 It's an export from SAP.

8 Q. Okay. All right. So I'm going to go past
9 that. Then we have this next document, which is Bates
10 187. I'll zoom in to the top.

11 A. Uh-huh.

12 Q. All right. What document is this?

13 A. This is not an official document. As you can
14 see, there's no document number on it. It's just a print
15 that can be printed by the clerk. And what it is is the
16 troublemen can record -- so if you're looking at the
17 document, he obviously was -- went from aught over 1 to
18 8067 on 9-11. Then the following eight days he went from
19 8066 back to aught over 1. It was a break of the
20 segment. He just reported that he was there on separate
21 days.

22 Q. All right. And that's the end of the document.

23 So this, this document didn't have the same
24 Transmission Line Object List that we saw --

25 A. No.

26 Q. -- in Exhibit 140? And I'm showing that right

1 now from Bates 1252. Why isn't there a Transmission Line
2 Object List as part of the overhead patrol in Exhibit
3 141?

4 A. So the object list is required on a detailed
5 inspection because the inspector is on the ground and he
6 is inspecting it with -- at this time -- paper in hand.
7 When an air patrol is being done, he's in a helicopter,
8 and the helicopter only hovers over the assets for a
9 little bit of time. So they do not take all of this
10 paperwork. This is not a required document on an air
11 patrol.

12 Q. Okay. Can you tell me -- I'm going to ask you
13 about both types of inspection. Going back to the
14 detailed inspection, is there any other checklists that
15 the inspector would take with them in order to make sure
16 that they're being thorough in what to expect or -- I
17 mean, what to inspect, or just to tell them what to focus
18 on during the inspection?

19 A. This doesn't really tell them what to focus on.
20 This just gives them the assets that are on the circuit.
21 So even this is not instructional as to look at this.
22 This just tells them what they're looking at, if it's a
23 tower, what location, things like that.

24 Q. When you say "this," are you talking about --

25 A. The object list.

26 Q. -- the Transmission Line Object List?

1 A. Yes, I apologize.

2 So -- but this is the required document they
3 take out with them. So to answer your question, no. Is
4 there another required document? Not to my knowledge.

5 Q. Okay. So there's no required document with a
6 checklist. Are you aware of any, are you aware of any
7 checklist that's not a required document but that's
8 frequently used during inspections? Have you ever seen a
9 checklist like that?

10 A. Like the object list? No.

11 Q. A checklist that tells the inspector what to
12 look at on each tower, like inspect these bolts?

13 A. In the climbing inspections.

14 Q. Okay. Okay. And so what kind of checklists
15 have you seen with a climbing inspection?

16 A. It's been a minute. I've seen one. They're
17 very detailed. It's multiple pages --

18 Q. Okay.

19 A. -- for the climbing inspections.

20 Q. Okay. What sorts of assets would that type of
21 checklist apply to?

22 A. The towers on the 500 kV circuits.

23 Q. And you have never -- have you ever seen a
24 checklist like that, that would apply to 115 kV lines?

25 A. No.

26 Q. No. Okay.

1 A. I apologize. Yes, I did.

2 Q. Okay.

3 A. They were used in November of last year.

4 Q. Okay. And why were they used?

5 A. They climbed the towers.

6 Q. Of November of 2018?

7 A. Correct.

8 Q. Was that after the fire?

9 A. It was during.

10 Q. It was during the fire.

11 A. Correct.

12 Q. Let's see, are you aware if there were ever any

13 timing requirements -- well, that's a confusing question.

14 You've talked about the frequency of

15 inspections. Are you aware if there were any guidelines

16 that would tell an inspector how long he should spend

17 performing an inspection?

18 A. Wasn't a guideline written in the standard, but

19 yes, there were, there used to be a variance that on a

20 detailed inspection they would get 15 minutes per asset,

21 and then on an air patrol I believe it was -- I think I

22 told you this earlier, I apologize -- I think it was 4

23 minutes per structure.

24 Q. Okay. And was that, was that a minimum amount

25 of time that they wanted the inspectors to spend?

26 A. Maximum.

1 Q. Maximum?

2 A. Fifteen minutes on a detailed.

3 Q. Okay. Did that include the time to get to

4 each, to get to each asset or did that just include the

5 time that they were at the asset?

6 A. I think it was the inspection time.

7 Q. Okay.

8 A. But that was just on the detailed inspection.

9 Q. Okay. Is there -- do you recall where that,

10 where that would have been written down, those time

11 requirements?

12 A. It might have been something that came out from

13 Business Finance.

14 Q. Okay.

15 A. Because they would calculate the hours on the

16 patrols and inspections, I think.

17 Q. Okay. And that was the Business Finance?

18 A. Business Finance.

19 Q. Okay. Is that a department?

20 A. I'm not sure, I'm not sure specifically who set

21 the 15 minutes or the 4 minutes. That I'm not sure. But

22 I think it was a breakdown of number of structures in an

23 hour, and that's how they did the calculations.

24 Q. Okay. Is there a person that either works or

25 did work for PG&E within Business Finance that you think

26 would be a person that's knowledgeable about this?

1 A. No, but first line supervisor would know.

2 Q. Okay.

3 A. A first line supervisor from Transmission would
4 be able to help us answer that question. My apologies.
5 I'm trying.

6 Q. You're doing fine.

7 Okay. All right. Can you give me -- well,
8 first, can you explain what a first line supervisor does?

9 A. They're, they supervise the crew for each of
10 the headquarters throughout Transmission.

11 Q. Do you, do you know, do you know the names of
12 the first line supervisors that worked out of Table
13 Mountain?

14 A. Yes.

15 Q. Okay. What are some of their names?

16 A. Currently, (WITNESS #22).

17 Q. Okay.

18 A. (WITNESS #12) was a supervisor in Table
19 Mountain.

20 Q. Okay.

21 A. (EMPLOYEE #3) was a supervisors in Table
22 Mountain. I think (WITNESS #18) filled in for a while as
23 supervisor at Table Mountain.

24 Q. Okay. And did --

25 A. That's to the best of my ability.

26 Q. Okay.

1 A. Sorry.

2 Q. All right. Okay. So we looked at several
3 different types of inspection records. How far do PG&E's
4 inspection records go back?

5 A. I don't know that there's a date. I know we --
6 when I started in Transmission, we had SAP. I don't
7 remember exactly when SAP started. I know it was prior
8 to me starting in Transmission. But SAP is the legal
9 record of holding. So it holds everything that's there.

10 Q. You don't know -- do you know what system
11 existed before SAP?

12 A. It was SAP when I got here.

13 Q. Okay.

14

15 (Grand Jury Exhibit 143 was marked for identification.)

16

17 Q. Okay, let's see. All right. I'm going to go
18 to the next exhibit, Grand Jury Exhibit 143. I'm going
19 to zoom in. This is really small, two pages on one
20 sheet.

21 Okay. All right. I'm zooming in to the first
22 page, top half. Do you recognize this document? And
23 I'll --

24 A. I can tell you that's an SAP print for an LC
25 notification, yes.

26 Q. Okay.

1 A. Corrective work.

2 Q. Okay. And who would create one of those
3 documents?

4 A. This would have been -- so back in 2009, the
5 troublemen had paper tags, and they would hand write,
6 then they would bring it in, and after the supervisor
7 reviewed it, he would give to the clerk, and she would do
8 data entry into SAP. And this is a print from SAP.

9 Q. Okay. When you say "hand tags," what does that
10 refer to?

11 A. Handwriting. They would hand write on
12 something that looked like this format. So he would
13 write what the problem was, what line he was on, and he
14 would enter data, then the clerk would enter it.

15 Q. Okay. Does PG&E keep the handwritten papers?

16 A. Yes.

17 Q. Okay. Where would those be kept?

18 A. In the line file at the headquarters.

19 Q. Okay. So looking at this document, it says "LC
20 number," then there's a number there. What does LC
21 number refer to?

22 A. LC number is line corrective. And it's just
23 the type of notification from SAP.

24 Q. Okay. And you see "line name, 10391,
25 Caribou-Palermo." What does 109 -- 10391 refer to?

26 A. That represents the line segment in ETGIS, the

1 line number. So each of our circuits holds five-digit
2 categorized numbers. And that's the number specific to
3 the Caribou-Palermo.

4 Q. And if you look down, I'm going to jump one
5 line, to "equipment"?

6 A. Yep.

7 Q. And there's a number there, "40634311." What
8 does that refer to?

9 A. So that is the asset ID in SAP.

10 Q. Does that asset -- when you say "asset ID,"
11 what asset is it referring to?

12 A. 7 over 60, the ceramic insulator.

13 Q. Does that number refer to the whole -- the
14 tower that's also referred to as 7 over 60?

15 A. No.

16 Q. Okay. Does it refer to just the ceramic
17 insulator?

18 A. Yes, ma'am.

19 Q. All right. And then I'm going to go down to
20 the bottom, there's a box and there's a label of "long
21 text"?

22 A. Uh-huh.

23 Q. What goes in that box?

24 A. Any comments.

25 Q. Okay.

26 A. Or instructions.

1 Q. Okay. And so the first, the first comment
2 there is from (EMPLOYEE #17). Who is (EMPLOYEE #17)?

3 A. (EMPLOYEE #17).

4 Q. (EMPLOYEE #17)?

5 A. (EMPLOYEE #17). She was the clerk at Table
6 Mountain.

7 Q. Okay. And did -- was she in your chain of
8 command at some point?

9 A. She was one of my employees, yes.

10 Q. And what are some other names of people who
11 worked in the same position as clerk at Table Mountain?

12 A. (WITNESS #21) is there now.

13 Q. Okay.

14 A. I don't know if there's been other clerks
15 besides (EMPLOYEE #17) and (WITNESS #21) now that I think
16 back. I'm not sure.

17 Q. Okay. I think we've talked a little bit about
18 this, but I'm going to ask you a few more questions.

19 A. Okay.

20 Q. Can you tell me what a past due tag is?

21 A. A past due tag?

22 Q. Yes.

23 A. Is a tag that has been worked beyond its
24 required end date.

25 Q. Okay. What does that mean?

26 A. When corrective work is identified, it's given

1 a priority. And our priorities are categorized by the
2 nature of the repair. And so if it's an E-tag, for
3 instance, you have two years, so if you find it in May of
4 this year, it's going to be due by May of 2021.

5 Q. Okay.

6 A. So if it goes past that, then it's going to be
7 past due.

8 Q. Okay. When a tag goes past due, what, what
9 does, what happens when a tag goes past due?

10 A. In my role?

11 Q. Yes. Yeah.

12 A. So right now it -- we report, we do a
13 self-report to the CPUC every month, and we report to the
14 ISO on tags when they go late.

15 Q. Okay.

16 A. That's the way we go.

17 Q. Do you ever seek past due exemption?

18 A. Yes. That is the new process that was
19 implemented in 2017.

20 Q. Can you explain that process?

21 A. To the best of my ability.

22 Q. Is that something you, is that something you
23 work with --

24 A. Yes.

25 Q. -- in your position?

26 A. Yes.

1 Q. Just explain it as -- we don't, we don't --
2 just explain it with as much detail as you deal with in
3 your position.

4 A. So an exemption, it's allowing extra time on
5 corrective work for a reason that's met within the
6 guidelines of our standard, meaning within our *ETPM*
7 *Manual*. There are only a few cases that can meet an
8 exemption. And one of them is clearance cancellation,
9 access issues. I know this. I'm sorry. So the first
10 line supervisor has to take pictures of the location,
11 fill out a form, propose the new date that they're going
12 to have the work done. They submit it in an electronic
13 document routing system. And it goes to the
14 superintendent for approval, my strategist for approval
15 so that they are assured that it meets criteria of the
16 ETPM. Then it goes to the senior director for approval
17 as well.

18
19 (Grand Jury Exhibit 146 was marked for identification.)
20

21 Q. Okay. Let's go forward to Grand Jury Exhibit
22 146. I should have brought this up before you started
23 talking about it.

24 A. That's okay.

25 Q. Let's see. I'll bring you a copy. It's
26 entitled Transmission LC Past Due Exemption Process.

1 A. Yes.

2 Q. Do you recognize that document?

3 A. I do.

4 Q. Okay. What is it?

5 A. This is the jobbing for the exemption process.

6 Q. Okay. Is that what you use when you, when you

7 follow the procedure that you just testified about?

8 A. That is correct.

9 Q. Okay.

10 A. Not this one specific. There is a revision

11 newer than this.

12 Q. Okay. So that's an older version?

13 A. This is an older version, correct. But yes.

14 Q. Is that, is that a attachment to the *Electronic*

15 *Transmission Preventative Maintenance Manual*.

16 A. Ask me that again. I'm sorry.

17 Q. Is that an -- well, I called it -- I asked it,

18 is that an attachment to the *Electronic Transmission*

19 *Preventive Maintenance Manual*.

20 A. You can access this through the electronic

21 version of the ETPM, yes.

22 Q. Okay. Is there a hyperlink to that document?

23 A. Uh-huh.

24 (Court reporter interrupts proceeding.)

25 A. Yes. I'm sorry

26 Q. And I'm just going to skip to the last page of

1 this, zoom in. It says on the last page, "Document
2 contact Stacie Doyle, Transmission Line Work Management."
3 That's you?

4 A. That is me.

5 Q. Okay. Why are you listed as a document contact
6 for this document?

7 A. Because my team is one of the approvers for the
8 exemption process based on the standard for compliance.
9 So Robert Cupp is the superintendent of the south, so it
10 was he -- it was like his approval from superintendent
11 and my approval from compliance.

12

13 (Grand Jury Exhibit 145 was marked for identification.)

14

15 Q. And to go forward, another, to the next
16 exhibit, Grand jury Exhibit 145.

17 Do you recognize that document?

18 A. You know, only because you showed me this
19 earlier today.

20 Q. Okay.

21 A. But no.

22 Q. Before today had you ever seen this?

23 A. No. And I have heard of it, but as it a new
24 document.

25 Q. Okay.

26 A. Says October of last year. And this is not my

1 role anymore. But I did hear about this.

2 Q. Okay. And is -- can you tell from the top of
3 the document whether this is something that would be part
4 of the *Electronic Transmission Preventive Maintenance*
5 *Manual*?

6 A. Yes. This is a job aid in our manual. You can
7 tell because in the top right corner its given a form
8 number. So the TD -- if you can make that bigger, I'll
9 show you. Up at the top right corner -- there you go.
10 So the TD is the Transmission Department. The 1001M is a
11 -- our utility manual, the *ETPM Manual* that I referenced
12 earlier. And the JA01 is the actual document number,
13 meaning job A01.

14 Q. Okay. All right. I'm going to have you look
15 at Grand Jury Exhibit 146. I'm just going to zoom in.
16 I'm not going to ask you for --

17 A. That's my Five Minute Meeting."

18 Q. Cool. Let me bring you a copy.

19 A. I'm familiar with it. It's okay.

20 Q. Have you seen this document?

21 A. I created it.

22 Q. Why did you create this document?

23 A. I, I created a new process for our damage
24 claims so that we would be able to track the work to
25 completion better. So it was a process improvement. So
26 the Five Minute Meeting allows us to give visibility to

1 the target audience so that they understand the new
2 process.

3 Q. Who is the target audience for this document?

4 A. This would be in the clerks, the troublemen,
5 and the supervisors.

6 Q. Okay. And so -- okay. So you created this
7 Five Minute Meeting document --

8 A. I did.

9 Q. -- because you wanted to tell people about an
10 issue that --

11 A. A process change.

12 Q. A process change.

13 A. Yes.

14 Q. Are there -- is this something that you came up
15 with, Five Minute Meeting, or is this a type of document
16 that other people create within PG&E?

17 A. Other people create it. I can't take credit
18 for that.

19 Q. Are there any other ways that, that employees,
20 supervisors like you, or anybody else in PG&E that needs
21 to share information, are there any other ways that they
22 would disseminate information other than a Five Minute
23 Meeting?

24 A. Yes.

25 Q. Okay. What are some other ways?

26 A. Tailboards, training.

1 Q. What is a tailboard?

2 A. A tailboard is if we're all in a room together,
3 I have a sign-in sheet, and I can have everybody sign to
4 acknowledge that once -- I would present the new
5 information, and then I would have everybody sign to
6 validate that they received the information on the date
7 that was stipulated on the document.

8 Q. Okay. So Five Minute Meetings, tailboards,
9 what other types of ways would PG&E disseminate
10 information?

11 A. Conference call.

12 Q. Did you ever see any safety bulletins?

13 A. Do I see safety bulletins?

14 Q. Yes.

15 A. Yes. Those are usually tailboarded at the
16 local headquarter or instructor-led base training.

17 Q. Okay.

18 A. And those are kept in the files at the local
19 headquarters for each of the Transmission locations.

20 Q. Does PG&E have any kind of internal message
21 board or sort of a place where any kind of like chat
22 system where people in similar positions can converse
23 about issues that they're seeing?

24 A. Not to my knowledge.

25 Q. Let's see, and this is a slightly different
26 topic, but has to do with training. Have you ever seen,

1 have you ever become aware of any resources specifically
2 training inspectors on how to assess wear on PG&E assets?

3

4 (Court reporter interrupts proceeding.)

5

6 A. No, I never have. I said it's out of my
7 wheelhouse.

8 (Counsel confer.)

9

10 EXAMINATION

11

12 BY MR. NOEL

13 Q. Ms. Doyle, I'm going to ask you a few
14 questions.

15 A. Okay.

16 Q. You've mentioned climbing inspections.

17 A. Yes.

18 Q. You said that the *Electronic Preventive*
19 *Transmission* --

20 A. *ETPM*.

21 Q. Yeah. I remember -- I can't get that. That
22 that designates that climbing inspections must happen
23 every 12 years?

24 A. Yes.

25 Q. And does it also state that climbing
26 inspections must occur "as triggered"?

1 A. As triggered, which is a 12-year cycle. But,
2 yes, it does state as triggered.

3 Q. But it also has a definition of what
4 constitutes as triggered; correct?

5 A. I need my book. I'm going to say yes.

6 Q. I think that's --

7 A. But it also --

8 Q. -- Section 2.3, sub A or sub B, I think?

9 A. Okay. I don't know.

10 Q. But "as triggered" basically says anything that
11 reasonably should cause people to come back and look at
12 this tower, take a close look, especially significant
13 things; correct?

14 A. Correct.

15 Q. So, for instance, if a hundred-year-old tower
16 down in the Bay Area was having problems in early 2018
17 with hardware and C hooks and mounting brackets and wear,
18 that would be something that would trigger other parts of
19 the area that, hey, maybe you ought to go take a look at
20 those things; right?

21 A. Out of my wheelhouse.

22 Q. Okay.

23 A. And I apologize. I handle the electronic side
24 of it. But for that --

25 Q. You handle the records?

26 A. Yes. For that part of it --

1 Q. That's --
2 A. -- that would be more towards the field.
3 Q. You're the person who is in charge, you keep,
4 you process all of the records that go through the Table
5 Mountain Substation; correct?
6 A. Ask me that again.
7 Q. You're in charge of all the records, you're
8 essentially the record keeper --
9 A. No.
10 Q. -- correct?
11 A. No.
12 Q. Who is?
13 A. SAP.
14 Q. Okay. SAP is a computer system; correct?
15 A. Correct.
16 Q. You're in charge of the SAP for the Table
17 Mountain sub; right?
18 A. No, I'm not.
19 Q. Who is?
20 A. Table Mountain headquarters is responsible for
21 the records.
22 Q. Okay.
23 A. We maintain the data requests. We maintain the
24 records for the auditors.
25 Q. Right.
26 A. And that could be multiple headquarters. But

1 they're not located or housed with me or my, my
2 department or my group. We're all in various locations
3 throughout the system because we work through the
4 computer. So as for the records -- or if even if you
5 were to call me and said, "Hey, Stacie, can you get me a
6 copy of this?" it would have to be retrieved from that
7 local headquarter.

8 Q. Okay. But my understanding of why you were
9 sent here today by PG&E is that you are considered the
10 custodian of records for the Table Mountain Center;
11 correct? Especially the inspection records?

12 A. I'm -- to be honest with you, I'm not sure why
13 I'm here, but I'm doing my best.

14 Q. Okay. All right. Let's get to the big
15 question.

16 A. Okay.

17 Q. Are you aware of any records of any climbing
18 inspections in the Caribou-Palermo 115 kV line in the
19 last 12 years?

20 A. Yes. November of last year they started --

21 Q. After the fire; correct?

22 A. During the fire.

23 Q. Well, after November 8th, after the fire
24 started?

25 A. That's correct.

26 Q. So after, as we've already heard --

1 A. That's correct.

2 Q. -- PG&E employees went to a tower, taking down
3 the parts, they knew all about the broken C hook?

4 A. That I don't know.

5 Q. Afterwards, they went out and did substantial
6 inspections; correct?

7 A. They started climbing the towers in November of
8 2018.

9 Q. Right. First it was the Nine Lines Tower
10 Inspection Program from November 14th to December 3rd, I
11 believe, and then it became the Wildfire Safety
12 Inspection Program that started in December. As I
13 understand, is still running; correct?

14 A. Yes, sir, it is.

15 Q. And do you know how many safety issues were
16 found on the Caribou-Palermo line?

17 A. I do not.

18 Q. Substantial; correct?

19 A. I do not have a number. I have no indication
20 on that. That's more field than it is mine.

21 Q. But you have the records; right?

22 A. The safety records?

23 Q. Yeah, the notification records of all the
24 problems that were found on the Caribou-Palermo.

25 A. Yeah. I can -- I have access to them, yes.

26 Q. Okay. All right. So you may have to come

1 back. But prior to November 14th, I believe it is,
2 2018 --

3 A. Uh-huh.

4 Q. -- when was the last climbing inspection that
5 we have a report of on the Caribou-Palermo?

6 A. That I do not know.

7 Q. And none have been provided; correct?

8 A. Not to me.

9 Q. And in some of these reports, on the Operation
10 Control Ticket --

11 A. Yes.

12 Q. Can you flip back to 140?

13 There we go.

14 On this Operation Control Ticket here you
15 talked about someplace, but down here there's a section
16 called "partner"; correct?

17 A. Yes.

18 Q. And that lists?

19 A. Me.

20 Q. Stacie Doyle.

21 A. It doesn't say Stacie Doyle. It says SRF5
22 Doyle.

23 Q. SRF5 JO?

24 A. No. No, no, no. That is not a JO. So, as I
25 was indicating earlier, that's an SAP print. And what
26 you don't see is that's job owner.

1 Q. Okay.

2 A. JO is not a person.

3 Q. Okay. Because they all say JO, right, there?

4 A. Yes, job owner.

5 Q. SRF5 is you?

6 A. That's correct.

7 Q. And that's what's called your LAN ID?

8 A. That's correct.

9 Q. Why is your LAN ID SRF5?

10 A. Because that, that's my, that's the LAN ID I

11 was given when I was hired by PG&E.

12 Q. Do you know what the PG&E naming convention is

13 for coming up with those LAN IDs?

14 A. That's my initials. I don't know what the

15 number 5 is, because there's no other one.

16 Q. And then Doyle, Stacie. Is this your phone

17 number, (REDACTED)?

18 A. Yes, sir, it is.

19 Q. What does it mean that you're a partner of this

20 person?

21 A. So that's an SAP default. And you'll see many

22 names on those. We, as the asset strategists, we

23 schedule the patrols and inspections, and our name ended

24 up there. We didn't put it there. We don't know if it

25 has something to do with when we set the call for the

26 next calendar year from IT, but the strategists' names

1 appear on those.

2 Q. One more thing, just going back to the object
3 list that came up. This is the Transmission Line Object
4 List; correct?

5 A. Yes, sir.

6 Q. This printed, typed information, that's all
7 provided in your SAP system; correct?

8 A. Yes.

9 Q. So your SAP system has a list of all of the
10 towers, all of the structures on the lines?

11 A. Yes, sir.

12 Q. And that's up to date; correct?

13 A. That document is no longer provided now. Now
14 it's all on an iPad.

15 Q. But the iPad has the same information; right?

16 A. Yes, sir.

17 Q. When did you switch from the, from these
18 handwritten documents to the iPads?

19 A. I was asked that earlier today. And I'm not
20 positive. It might have been the latter part of 2017, or
21 that might have been when we piloted it to some and some
22 took over in 2018, but it was recent.

23 Q. Okay. Now, prior to 2016, these data --
24 Transmission Line Object Lists were used in every
25 inspection, not just detailed inspections; correct?

26 A. No.

1 Q. Well, in -- the detailed inspections are every
2 five years; right?

3 A. Yes, sir.

4 Q. There's a detail inspection in 2009 by (WITNESS
5 #1)?

6 A. Okay.

7 Q. A detail inspection from 2014 that was split
8 between (WITNESS #1) and (WITNESS #23) --

9 A. Okay.

10 Q. -- correct? There were also aerial inspections
11 in 2010, '11, '12?

12 A. Correct.

13 Q. '13?

14 A. Uh-huh.

15 Q. '15?

16 A. Uh-huh.

17 Q. All of those, even though they're air
18 inspections, already have transmission line objects.

19 A. Then that's, that's because they chose to use
20 them. That is not a required document on an air patrol.

21 Q. Okay. I mean, going back even further, I think
22 all the way through 2001, every single year has a
23 Transmission Line Object List until 2016.

24 A. Yeah.

25 Q. So were all those different inspectors just
26 doing, voluntarily doing it their way, or was that

1 something that was done and then was subsequently --

2 A. It was not a required document on an air
3 patrol.

4 Q. But with the Transmission Line Object List, it
5 lists out every single tower; correct?

6 A. Yes, sir.

7 Q. And when it's filled out, they're supposed --
8 the troubleman is supposed to fill it out for every
9 single tower as they inspect it; correct?

10 A. On a detailed inspection, yes, sir.

11 Q. I just want to make sure I got this straight.
12 You were talking that at one point there were time
13 parameters for inspections; correct?

14 A. Yes.

15 Q. And you said that the inspectors, the
16 troublemen, were told for a detailed inspection a maximum
17 of 15 minutes per asset?

18 A. Yes. I believe it was 15.

19 Q. All right. And for an air patrol, 4 minutes
20 per asset?

21 A. Yes, sir.

22 Q. Now, what I want to make sure is you said that
23 that was something that was set by Business and Finance?

24 A. I am not positive it was Business Finance that
25 -- Business Finance is not Business and Finance, it's
26 Business Finance.

1 Q. Right.

2 A. So I don't know who set those trigger times.
3 I'm not specific as to that. I said they could have
4 knowledge. But the first line supervisor would know
5 where that came from.

6 Q. And when was that in effect?

7 A. When I was a clerk; 2006, '7, '8. No, wait.
8 I'm sorry, '7, '8, '9, '10.

9 MR. NOEL: Anything else?

10 MS. RICHARDS: No.

11 MR. NOEL: Thank you, ma'am.

12 GRAND JURY FOREPERSON: Thank you.

13 MR. NOEL: Do we have any questions?

14 (Counsel and Grand Jury Foreperson confer.)

15 MR. NOEL: Ma'am, there are some questions from
16 the jurors.

17 THE WITNESS: Okay.

18 Q. (By MR. NOEL) Are you aware of any instances
19 where a required inspection was missed even though the
20 inspection was channeled through your self-reporting
21 system?

22 A. No. No, I'm not.

23 Q. Was it common, uncommon, rare for a past due
24 repair to be pushed off to a future date, in your
25 experience?

26 A. Can you read that again? I apologize.

1 Q. Was it common, uncommon, rare for a past due
2 repair to be pushed off to a future date, in your
3 experience?

4 A. When I was a clerk, they used to reassess
5 notification. So they would go out -- it wouldn't, it
6 wouldn't go past due, but they would go out to reassess
7 the condition to see if it warranted more work or if it
8 was safe at that time. I'm not sure, really sure how
9 else to answer that. That I was a part of that I can
10 speak to.

11 MR. NOEL: That answer the questions? Anything
12 further?

13 I think we're done with this witness. If you
14 could give her the admonition.

15 GRAND JURY FOREPERSON: Ms. Doyle, you are
16 admonished not to discuss or disclose at any time outside
17 of this jury room the questions that have been asked of
18 you or your answers until authorized by this Grand Jury
19 or the Court. A violation of these instructions on your
20 part may be the basis for a charge against you of
21 contempt of court. This does not preclude you from
22 discussing your legal rights with your own attorney.

23 Ms. Doyle, what I have just said is a warning
24 not to discuss the case with anyone except the Court,
25 your lawyer, or the district attorney. Do you
26 understand?

1 THE WITNESS: Yes, ma'am.
2 GRAND JURY FOREPERSON: Thank you.
3 MR. NOEL: Remember, that's your lawyer, not
4 PG&E's lawyers.
5 THE WITNESS: Yes, sir.
6 MR. NOEL: So you can't speak to anybody else
7 about this except if you have an individual lawyer.
8 THE WITNESS: Yes. Which I do not.
9 MR. NOEL: The attorneys outside are not your
10 lawyers.
11 THE WITNESS: No, they're not.
12 MR. NOEL: They're PG&E's lawyers.
13 THE WITNESS: That's Correct.
14 MR. NOEL: That's what I'm talking about. Just
15 wanted to make sure that was absolutely clear.
16 THE WITNESS: Understood.
17 MR. NOEL: Yep.
18 THE WITNESS: Thank you. Am I free to go?
19 GRAND JURY FOREPERSON: You are free to go.
20 THE WITNESS: Thank you so much.
21 [DISCUSSION OMITTED.]
22 --oOo--
23
24
25
26

COURT REPORTER'S CERTIFICATE


This is to certify that I, JENNIFER L. HUNT, CSR, a Certified Shorthand Reporter of the State of California, was present at the time and place the foregoing proceedings were had and taken in the within matter; that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings and afterwards caused my said shorthand writing to be transcribed into typewriting. Further, pursuant to CCP237 all reference to jurors by name has been redacted.

The foregoing pages beginning at:

1 through 91

are certified to be a complete transcription of said stenographic shorthand notes.

DATED: THIS 6TH day of JUNE 2022



JENNIFER L. HUNT, CSR 10735
OFFICIAL REPORTER

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IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

REDACTED

BCSC-2019-GJ-01

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, JUNE 4, 2019

VOLUME 8

OROVILLE, BUTTE COUNTY, CALIFORNIA

LISA MCDERMID WELCH, CSR 10928, OFFICIAL COURT REPORTER

SEALED PURSUANT TO PENAL CODE 938.1 (b)

1 APPEARANCES:

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23
24
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(WITNESS #1)

Examination by Mr. Noel

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LISA MCDERMID WELCH, CSR 10928 Page 4

1 OROVILLE, BUTTE COUNTY, CALIFORNIA

2 JUNE 4, 2019; 1:05 p.m.

3 (Confidential Grand Jury Hearing Proceedings)

4
5 GRAND JURY FOREPERSON: We are on the record.

6
7 (ROLLCALL OMITTED.)

8
9 MR. NOEL: Before we call the first witness, I
10 just want to put one thing on the record. It's 1 o'clock
11 or a little after 1:00. We weren't in session this
12 morning.

13 About 8:30 this morning I received a phone call
14 through our reception through the public number that a
15 person whose name I did not know was calling and
16 wanted -- asking to speak with me. I answered the phone.

17 We don't have the grand jurors' names. We only
18 know the grand jurors by number. I believe it was grand
19 juror number 12. And I simply -- we had a very short
20 conversation where he asked me what time we were starting
21 today. And I told him 1 o'clock and reminded him that
22 one of the grand jurors had an appointment this morning
23 so we had pushed it back.

24 And I think that was the extent of our
25 conversation. It was probably no more than thirty
26 seconds. But I want to make sure that is on the record.

1 Is that correct, Juror Number 12?

2 GRAND JUROR NUMBER TWELVE: Yep.

3 MR. NOEL: So that takes care of that.

4 GRAND JURY FOREPERSON: Do we need to give you
5 our names?

6 MR. NOEL: Nope. We don't want to know the
7 names. Once we -- my understanding is once the jury
8 selection was completed, that everyone's names are sealed
9 and that's why we take roll by juror number and everyone
10 is identified by their number.

11 GRAND JURY FOREPERSON: Okay.

12 MR. NOEL: That's all I want to know.

13 GRAND JURY FOREPERSON: Okay.

14 MR. NOEL: Are we prepared? Anything else we
15 need to deal with before we start?

16 GRAND JURY FOREPERSON: Anything else?

17 MR. FOGG: Appearances for the record.

18 MR. NOEL: Oh, that's a good idea. I'm sorry.
19 I'm Marc Noel from the Butte County D.A.'s office.

20 MS. RICHARDS: Megan Richards for the Attorney
21 General's office.

22 MR. FOGG: Nicholas Fogg from the Attorney
23 General's office.

24 MR. NOEL: We'll call our first witness (WITNESS
25 #1).

26 [Witness enters the courtroom.]

1 GRAND JURY FOREPERSON: Thank you. Put your
2 stuff down, raise your right hand, please.

3 (WITNESS #1), do you solemnly swear that the
4 evidence that you shall give in the matter pending before
5 the grand jury shall be the truth, the whole truth, and
6 nothing but the truth so help you God?

7 THE WITNESS: Yes, Ma'am.

8 GRAND JURY FOREPERSON: Thank you. Have a seat,
9 please.

10 **EXAMINATION**

11 BY MR. NOEL:

12 Q. You ready?

13 A. Yes, Sir.

14 Q. Can you please recite your full name spelling
15 your last name for the court reporter.

16 A. Yes. (WITNESS #1).

17 Q. Let's see if we can pull that microphone up a
18 little bit closer to you.

19 A. (WITNESS #1).

20 Q. Spell your last.

21 A. Pardon?

22 Q. Spell your last name, please.

23 A. (WITNESS #1).

24 Q. (WITNESS #1), do you have a nickname that you go
25 by?

26 A. Yes. (WITNESS #1).

1 Q. Thank you. Can you spell that for us, please.

2 A. (WITNESS #1).

3 Q. Thank you, Sir.

4 What is your profession at this time, (WITNESS
5 #1)?

6 A. I'm retired.

7 Q. From what are you retired?

8 A. PG&E.

9 Q. How long did you work for PG&E?

10 A. Forty years.

11 Q. When did you start working for PG&E?

12 A. 1977.

13 Q. And when did you retire?

14 A. About four years ago.

15 Q. So about 2015?

16 A. Yes, Sir.

17 Q. I'd like to walk through just briefly your
18 career at PG&E, where you started, what jobs you held.
19 Can you do that for us.

20 A. Sure. Started in 1977 for GC Line Concord
21 Walnut Creek. From there I, of course, went all over the
22 state working for them. And then from there I went into
23 the Marysville Division. And from there I went back out
24 to GC Line and became a subforeman A. And from there I
25 went down to the Livermore school and become one of their
26 instructors for five or six years. And then I left there

1 again and just continued to be a foreman, a lineman.

2 That's it.

3 Q. In your 40 years were there a lot of changes
4 within the company?

5 A. Yeah.

6 Q. And the company structure?

7 A. Always.

8 Q. Yeah. So when you started off -- I think you
9 said in GC Line, what did that job entail?

10 A. I was hired on as an apprentice lineman. And I
11 assisted the linemen in doing all sorts of hot work in
12 4 kV and 21, 12 and 2400 kV with rubber gloves and stuff
13 like that.

14 Q. Now, were you working on distribution lines or
15 transmission lines?

16 A. Both.

17 Q. Both?

18 A. Yes.

19 Q. Now, when you started with the company, there
20 was just an electrical side. There was no distinction
21 between distribution and transmission lines?

22 A. Again, Sir.

23 Q. Was there a distinction back then between --

24 A. No. We worked both.

25 Q. Okay.

26 A. Yeah.

1 Q. Let me approach if it's okay with you real
2 quick. I don't want you leaning forward.

3 A. Whatever you need me to do, Sir.

4 Q. There you go.

5 A. Okay. Thank you.

6 Q. Is that good enough?

7 A. Yes, Sir. It's fine if you can hear me, I
8 guess.

9 Q. You just don't look comfortable leaning forward
10 into that microphone. I know I wouldn't be.

11 A. That's the way my body ended up.

12 Q. So as a lineman what were your duties?

13 A. Basically working on poles, wood poles,
14 transformers, all sorts of distribution equipment. And
15 then on the transmission side polar conductors, doing big
16 jobs, the big conductors located down in the Bay Area.
17 That's what we did.

18 Q. And you said you started off in Walnut Creek?

19 A. Yes, Sir. Concord. Walnut Creek, Concord.

20 Q. How long were you in that job?

21 A. Oh, I was probably in that job about four years
22 and then I got laid off.

23 Q. Okay. So you got laid off from the company?

24 A. Yes.

25 Q. Somewhere around 1981?

26 A. No. I -- right around '73 or '4 and then I went

1 back with them about '77, '78. I had broken time in
2 there.

3 Q. Okay. So you actually started with the company
4 in around '73?

5 A. Yeah.

6 Q. You got laid off and came back with the company
7 in '77 and started again?

8 A. Yeah. I just got out of the army in '69.

9 Q. All right. So when you started up again in '77,
10 what was your job?

11 A. Apprentice lineman.

12 Q. Okay. And how long did you -- were you an
13 apprentice lineman?

14 A. I was an apprentice lineman for about two years
15 and then I made journeyman status.

16 Q. Okay. And what were your duties and
17 responsibilities as an apprentice lineman?

18 A. The same; to assist the linemen in all the hot
19 stick work and the hot work and the, you know, general
20 working on the poles and the towers, bells, conductors.
21 Everything.

22 Q. And you said you promoted to journeyman?

23 A. Yes.

24 Q. And what is the responsibility and duties of a
25 journeyman?

26 A. A little higher responsibility because then you

1 have an apprentice with you and you have to watch out not
2 only for him but for you, too.

3 Q. And how long were you a journeyman lineman?

4 A. Since '77. Probably about '79 to this day.

5 Q. Okay. You said then you went to a school in
6 Livermore and became an instructor?

7 A. Yes, yeah. I was an instructor in Livermore for
8 five years at lineman school.

9 Q. Okay. And what were you teaching?

10 A. Everything that -- rubber gloving, hot sticks,
11 rigging, math, equations for hooking the transformers up,
12 and all that stuff.

13 Q. Distribution or transmission?

14 A. Distribution.

15 Q. And what did you do after you stopped teaching?

16 A. Went back to GC Line as a subforeman.

17 Q. And what other duties and responsibilities did
18 the subforeman have?

19 A. Running the crew, doing the jobs, setting poles,
20 stringing conductors, doing hot work, doing stick work.
21 All the above.

22 Q. And do you recall approximately when PG&E split
23 electrical into distributions and transmission?

24 A. No, Sir, I don't.

25 Q. When that split occurred -- assuming that split
26 occurred -- where did you go?

1 A. I stayed in GC Line.

2 Q. Okay. But working on transmission or
3 distribution?

4 A. Distribution.

5 Q. Okay. At some appoint did you move over to
6 transmission?

7 A. No, Sir.

8 Q. You said at one point that you transferred up to
9 Marysville?

10 A. Yeah. That's -- they had the two different
11 setups. Marysville was a division or local people. They
12 did all the distributions and then GC line did all the
13 transmission.

14 Q. Okay. When you were in Marysville, you were
15 GC line?

16 A. No, Sir.

17 Q. Okay. What were you in Marysville?

18 A. I was in the Marysville division as a lineman.

19 Q. Okay. At some point did you end up at Table
20 Mountain Center?

21 A. Pardon?

22 Q. At some point did you end up working the Table
23 Mountain Center?

24 A. At the end of my career.

25 Q. Okay. Do you recall what years?

26 A. No, Sir. Old guy. You know, I'm losing it.

1 Q. That's okay. When you worked at the Table
2 Mountain Center, what was your assignment?

3 A. I was a transmission troubleman.

4 Q. Okay. What were the duties and responsibilities
5 of a troubleman?

6 A. Just patrol the lines and do all the switching.
7 When they had to clear a line for a crew, we cleared it.
8 We opened the switching up and stuff for them and cleared
9 the line.

10 Q. How about inspections and patrol?

11 A. Yeah. As a troubleman you did the inspections
12 and patrols.

13 MR. NOEL: Okay. If I may approach. If you
14 don't mind, Madam Foreperson.

15 BY MR. NOEL:

16 Q. I put -- there's a box of stuff behind you. And
17 we'll get to the rest of it in a second, but I'll hand
18 you what is marked as Exhibit Number 148. Do you see
19 that in front of you?

20 A. Yes, Sir.

21 Q. Do you recognize what that document is?

22 A. That is all the schooling I had.

23 Q. Okay. How long is that document?

24 A. It goes all the way to -- I'm looking at it --
25 2007 on the front page here.

26 Q. I mean, how many pages is that?

1 A. Quite a few.

2 Q. Yeah.

3 A. Quite a few, yeah.

4 Q. I'm not going to walk you through all your
5 training.

6 A. Yeah. I did a lot, quite a bit of it.

7 Q. Exactly. You have an extensive training history
8 there.

9 A. Yes, Sir.

10 Q. And they're all outlined in there. I believe
11 they start in, what, 1987 on the top of that page?

12 A. Yes, Sir.

13 Q. So you actually started with the company long
14 before they started keeping records of your training;
15 right?

16 A. Yes, Sir.

17 Q. So you have a lot more training probably than
18 what's in there?

19 A. A bunch.

20 Q. All right. All right. In the box behind you
21 there's a big binder that is marked as 2005. Well, let
22 me back up. Let me set the tone for this.

23 As a transmission troubleman did you have -- did
24 PG&E have rules or policies on how to do controls and
25 inspections?

26 A. Yes.

1 Q. And were you familiar with those?

2 A. As far as patrols and inspections?

3 Q. Yes.

4 A. Yes, yes. Well, when I did the job, yes.

5 Q. Right. And is there a name for the document?

6 A. Not that I -- I don't know, Sir.

7 Q. Okay. Are you familiar with the Electric

8 Transmission Preventative Maintenance Manual?

9 A. Yeah. I remember the book. I remember that
10 book, yeah.

11 Q. Okay. And was that something that you used as a
12 troubleman?

13 A. All the time.

14 Q. Okay. If you can go back, there should be a
15 binder -- a white binder in there that's marked 2005 on
16 the spine. Can you find it?

17 A. Yeah, I see it.

18 Q. You can grab that out. One of the really bad
19 things about this courtroom is that there is no shelf to
20 keep evidence on like that.

21 All right. Flip over the cover of that binder
22 and there on the first page --

23 Go back to the front page, Sir. You see the
24 evidence -- the exhibit tag on there 149?

25 A. Yes.

26 Q. Do you recognize Exhibit 149?

1 A. Yeah. It's the handbook, yeah.

2 Q. Okay. Now, this manual that -- the
3 Electronic -- the Electric Transmission Preventative
4 Maintenance Manual, this one on the bottom of page 1 on
5 the cover page says December of 2005. And we're talking
6 about a page number that is BAIT stamped
7 PGE-Camp-BC-000030014.

8 Now, were these manuals published yearly or did
9 they --

10 A. Yeah. Every time they needed to be upgraded
11 they were.

12 Q. Okay. So the one that we're looking at here
13 that is Exhibit 149 is the December of 2005 edition?

14 A. Okay.

15 Q. Is that correct? Is that your --

16 A. Yeah. That's what it says. 2005, yeah.

17 Q. Okay. So this would have been one of the
18 manuals that you would have used while you were a
19 troubleman?

20 A. Yes, Sir.

21 Q. So now I want you to reach back into that box
22 and there should be another binder marked 2006.

23 MR. NOEL: And thank you, Juror Number Eight.

24 THE WITNESS: Thank you.

25 BY MR. NOEL:

26 Q. And again, if you can flip open the cover page

1 and look at the cover page. And that document is marked
2 as Exhibit Number 150; is that correct?

3 A. Yeah.

4 Q. And do you recognize the document marked as
5 Exhibit Number 150?

6 A. Yeah, October 2006.

7 Q. Okay. What from October 2006?

8 A. Pardon?

9 Q. What is it from October 2006?

10 A. It says Electric Transmission Preventative
11 Maintenance Manual. Is that what you want?

12 Q. Yep. Again, that's a new copy published in 2006
13 of the manual that you used as a troubleman?

14 A. Sure.

15 Q. Is that correct?

16 A. Yeah. They change all the time. As we get new
17 information, they update the books.

18 Q. Okay. But you said they don't necessarily
19 change every year; correct?

20 A. That I don't know. They would issue it to us
21 and then we'd turn the old ones in and then we just keep
22 on going.

23 Q. Okay. So let's move on to the next binder in
24 there which is 2009.

25 Sorry. That witness stand just is not designed
26 for this stuff.

1 And do you see the document marked as Exhibit
2 Number 151?

3 A. Yes, Sir.

4 Q. And what is Exhibit Number 151?

5 A. I got it right here.

6 Q. Okay. What is it?

7 A. April 2009.

8 Q. April of 2009 edition of the Electric
9 Transmission Preventative Maintenance Manual?

10 A. Yes, Sir.

11 Q. And this again would have been a manual that you
12 used as a troubleman?

13 A. Yes, Sir.

14 Q. Do you know or do you recall -- if you don't,
15 that's fine. It's been a long time ago. But were there
16 different manuals published in 2007 and 2008?

17 A. Sir, not that I know.

18 Q. Okay. No. It's perfectly understandable.

19 A. Four or five years away from it. Who knows what
20 they're doing.

21 Q. So this 2009 would have been the manual that you
22 would have used in 2009 as a troubleman?

23 A. [Nods head.]

24 Q. So I want to kind of go through a little bit
25 using the 2009 manual that is in front of you, kind of
26 going through the manual itself. And I have up on the

1 big board in front of us pages Roman Numeral 1 or I and
2 Roman Numeral II. It's labeled "Table of contents."

3 A. I don't see a numeral. I see 22409. That's all
4 I see. I see talking points, summary. Is that what you
5 want?

6 Q. No. So it should be on the BAIT stamp 30679.
7 All right. Okay. We got you to the right page; correct?

8 A. Yes.

9 Q. All right. And there is two pages which are
10 PGE-Camp-BC-000030679 and 30680 which labels the table of
11 contents. And you're familiar with that?

12 A. As far as this here (indicating)?

13 Q. Yes.

14 A. Yeah. Just the book. It just tells you what
15 you need to do.

16 Q. Exactly. And it's broke down. This is a --
17 well, can you tell us from your perspective as a
18 troubleman -- as a transmission troubleman what does this
19 manual do?

20 A. This manual gives us guidance to do the job.

21 Q. Okay. And how does it do that?

22 A. Pardon?

23 Q. How does this manual give you guidance?

24 A. When we'd have safety meetings in the morning,
25 they'd bring this book out and we'd all go through it.

26 Q. Okay. So the first section is general

1 information?

2 A. Yes.

3 Q. Definition of terms. That kind of stuff. I
4 want to focus more on Section Two, general inspection and
5 patrol procedures.

6 Do you recall that section?

7 A. Yeah.

8 Q. Was that a section that you used in the normal
9 course of your business?

10 A. Yeah. Everybody had a book. Everybody used it,
11 yeah.

12 Q. I have heard the Electronic -- I always want to
13 call it the Electronic. The Electric Transmission
14 Maintenance -- Preventative Maintenance Manual is
15 referred to as the Bible of the troublemen?

16 A. Yeah.

17 Q. Would you agree with that?

18 A. Yeah.

19 Q. Okay.

20 A. I mean, you can't go out in the dark. You need
21 guidance.

22 Q. Right. And this is a manual that is put out by
23 the company?

24 A. Yes.

25 Q. And it's distributed to all the troublemen?

26 Remember, you have to talk out loud so our court

1 reporter can hear you.

2 A. Yes.

3 Q. Sorry. And then number three, section number
4 three, that deals with inspections?

5 A. Yep.

6 Q. And what are inspections?

7 A. You go out and inspect the line.

8 Q. Okay. Is that something that you did on a
9 regular basis?

10 A. Yes.

11 Q. And section four is patrols.

12 A. Did that too.

13 Q. Okay. What are patrols?

14 A. Pardon?

15 Q. What are patrols?

16 A. Go out and patrol the line.

17 Q. Okay. How is a patrol different from an
18 inspection?

19 A. It was really a combination of both. You
20 inspected the circuit and also patrolled it. You had to
21 go out there and drive it to look at it. You know what
22 I'm saying?

23 Q. Okay. Now, I want to move ahead to page -- and
24 this is down at the bottom. It would be -- it's section
25 two and it's BAIT stamped PGE-Camp-BC-0003742.

26 Did you find that page?

1 A. Yes, Sir.

2 Q. Is that the same page that I have displayed up
3 here on the --

4 A. No, Sir.

5 Q. -- Smart TV?

6 A. No, Sir. You probably have to come find it. I
7 don't know where you're at. Sorry about that.

8 Q. Let me see. There you go.

9 And for the record, when I am referring to the
10 BAIT stamp number or the page number, on the bottom of
11 every single page there is this number that says
12 "PG&E-Camp" whatever. So that is what I'm talking about.
13 It should be in the bottom right-hand corner of every
14 page.

15 A. It is.

16 Q. All right. All right. Going to section two,
17 general inspection of the patrol procedures, do you have
18 that in front of you?

19 A. Yeah, right here.

20 Q. All right. And you're familiar with this
21 section?

22 A. Yeah. I've seen it before, yeah.

23 Q. Yep. And you said this is something that you
24 used all the time when you were a troubleman?

25 A. Yes.

26 Q. Can you read for us the first section of this.

1 A. I think what I'll do, Sir, is stop there. And I
2 respectfully deny to answer based on my privilege under
3 the Fifth Amendment of the Constitution which was
4 designed to protect innocent men who otherwise might be
5 ensnared by ambiguous circumstances.

6 Q. So you're invoking --

7 A. Yes, Sir, I am.

8 Q. -- the Fifth Amendment?

9 A. Yes, Sir.

10 MR. NOEL: Okay. At this time we'll have to
11 summons Judge Deems.

12 GRAND JURY FOREPERSON: Okay.

13 MR. NOEL: So the grand jury will take a break
14 now.

15 Do you have the admonition to give him?

16 MR. FOGG: Regarding the invocation?

17 MR. NOEL: Sure.

18 MR. FOGG: So, Ladies and Gentlemen of the Grand
19 Jury, the Fifth Amendment allows someone to not have to
20 testify against themselves. You're to draw no
21 conclusions about anyone invoking the Fifth Amendment.
22 You're not to consider it, don't think about it. Okay.

23 MR. NOEL: All right. We will be in recess.
24 And we will need the witness, the court reporter, and us.
25 We will summons Judge Deems and convene, I believe, in an
26 adjacent courtroom.

1 THE WITNESS: Thank you, Sir.

2 GRAND JURY FOREPERSON: Do we need to do
3 an admonishment before if we're going to go out of here?

4 MR. NOEL: Sure. That's a good idea.

5 GRAND JURY FOREPERSON: Okay. (WITNESS #1), you
6 are admonished not to discuss or disclose at any time
7 outside of the jury room the questions that have been
8 asked of you or your answers until authorized by the
9 grand jury or the Court. A violation of these
10 instructions on your part may be the basis for a charge
11 against you of contempt of court. This does not preclude
12 you from discussing your legal rights with your attorney.

13 (WITNESS #1), what I have just said to you is a
14 warning not to discuss this case with anyone except the
15 Court, your lawyer, or the district attorney.

16 THE WITNESS: I got it, Ma'am.

17 GRAND JURY FOREPERSON: Okay. Thank you.

18 THE WITNESS: Thank you.

19 MR. NOEL: All right. We can recess outside,
20 and we'll all go find where Judge Deems is.

21

22 (PROCEEDINGS OMITTED.)

23

24 [Recess taken from

25 3:10 until 3:17 p.m.]

26 MR. NOEL: For the record, all 19 jurors are

1 present in their places. It's now 3:17 p.m. We have
2 been in recess since approximately 1:50. 1:45 to 1:50, I
3 believe.

4 And, Madam Foreperson, you have in front of you
5 delivered by the clerk?

6 GRAND JURY FOREPERSON: Yes, yes, I do.

7 MR. NOEL: And that is an immunity order issued
8 by Judge Deems for (WITNESS #1).

9 GRAND JURY FOREPERSON: Okay.

10 **EXAMINATION CONTINUED**

11 BY MR. NOEL:

12 Q. (WITNESS #1), you understand what we've been
13 doing for the last hour and a half. And have you had a
14 chance to talk to your attorney Mr. Shepard?

15 A. Yeah. He just kind of filled me in a little
16 bit. That's what he probably wanted me to know.

17 Q. Okay. And Judge Deems has issued what is known
18 as a 1324 immunity order that says that you are immune
19 from prosecution based upon your testimony.

20 A. Okay.

21 Q. So now you're ready to answer -- go back and any
22 questions; correct?

23 A. Yes, Sir.

24 Q. And you had plenty of opportunity to talk to
25 your attorney?

26 A. Yes, Sir.

1 Q. Okay. Great. All right. We were talking about
2 the Electric Transmission Preventative Maintenance
3 Manuel, the 2009 -- the April 2009 issue of it.
4 Specifically, we are talking about Section Two: General
5 Inspection and Patrol Procedures.

6 A. Yes, Sir.

7 Q. Correct?

8 A. Yes.

9 Q. And the last question that I asked you is to
10 read this. We'll go ahead and skip that at this point in
11 time.

12 Now, let's move on to Section 2.1: Overhead
13 Methodology, Facility Component Types, and Conditions
14 Found.

15 Do you see that in front of you?

16 A. Yes, Sir.

17 Q. And you are familiar with this section?

18 A. I haven't looked in this book in a long time,
19 Sir.

20 Q. Right.

21 A. Sorry.

22 Q. But in 2009 you used this when you were doing
23 stuff?

24 A. So what do you want me to say?

25 Q. No. Is that correct that in 2009 you were
26 using -- this is what you used?

1 A. Yeah.

2 Q. Or what you were using?

3 A. Yes. They would give them to all the
4 troublemen.

5 Q. What I wanted to ask you about on here is this
6 Table 2.1. -- 2.1-1: Inspection Best View Position. If
7 you -- as experienced over 40 years of working on
8 transmission lines, if you could just kind of give us a
9 brief understanding of what that means, what that chart
10 means.

11 A. It's just like I just said. It's the inspection
12 of the best view or position of the helicopter, the
13 ground, or in a vehicle.

14 Q. Okay. So this table lists four different kinds
15 of inspections; correct?

16 A. Yes, Sir.

17 Q. The first is an aerial inspection?

18 A. Right.

19 Q. What is an aerial inspection or what was an
20 aerial inspection?

21 A. Helicopter.

22 Q. Helicopter flying over the lines?

23 A. Yes, Sir.

24 Q. And did you do helicopter inspections of lines?

25 A. Yes.

26 Q. And what is a ground inspection?

1 A. Where you ride or walk on the ground with a
2 vehicle or a quad or whatever they supplied you to run
3 the line on the ground.

4 Q. Now, one of the things is this has two columns;
5 ground inspection below ten feet and ground inspection
6 above ten feet.

7 A. Right.

8 Q. What does that -- what is the difference?

9 A. Self-explanatory. Ten feet for the first part
10 of the tower and ten feet from the -- for the next part
11 of the tower or the pole or whatever we're working on.

12 Q. Okay. So the ten foot refers to the part of the
13 tower you're inspecting?

14 A. Yeah. The tower or pole, yeah.

15 Q. Okay. So then finally is a climbing inspection.

16 A. Self-explanatory.

17 Q. Did you do climbing inspections of towers?

18 A. Yes, Sir.

19 Q. Okay. And then the table goes down and breaks
20 the components down into different types of components.
21 And what type of inspection is the best for viewing
22 those?

23 A. Ground.

24 Q. Okay. All right. Now, I want to move on to the
25 table marked as 2.1.2: Component Types and Descriptions.

26 A. Yeah. Another self-explanatory on hardware and

1 bells and guides and stuff, yeah.

2 Q. I understand for you it's self-explanatory being
3 a troubleman working on these lines for forty-something
4 years, but for most of us that our only experience with
5 the lines is seeing them as we drove down the road it's
6 not.

7 A. Sure.

8 Q. So can you kind of explain to us what we're
9 looking at here and some of the different terms.

10 A. The component issue is anything that is on the
11 tower or on the wood pole. And then you have codes for
12 them. Say, an anchor hardware is fouled or whatever or
13 an anchor is bad, you got AG10, AG05. That's the code
14 that you'd write up a fix-it ticket and turn it in so it
15 could be fixed by the crew.

16 Q. Okay.

17 A. And that's how it goes all the way down the line
18 there.

19 Q. Okay. Let's go even more basic. What is an
20 anchor on a transmission tower?

21 A. Anchors are -- you've all seen on the wood poles
22 where the guides come off the pole and it goes to an
23 anchor in the ground. Sometimes in the heavy angles they
24 run guides to the steel towers to hold them so they
25 don't, you know, kind of tilt over or tip over or
26 whatever you want to call it. Yeah, it holds the tower

1 in position.

2 Q. Okay.

3 A. Yeah.

4 Q. So the next question is what is a guide?

5 A. The guide hooks to the tower, hooks to the
6 anchor.

7 Q. Is it a wire or --

8 A. Yeah. It comes in various sizes. And the
9 engineers call it up what size it should be.

10 Q. Okay.

11 A. It's all in here.

12 Q. What is a connector?

13 A. A connector is where you put two pieces of wire
14 together. And it's got -- it's called the parallel glue
15 clamp, and it's got three to six bolts in it. And you
16 put -- lay the wire on one side and another side and then
17 you bolt it down. And that's a connector. It's called
18 the connector. And they come in various things; copper,
19 aluminum, and so on and so on.

20 Q. What is the difference between the connector and
21 the splice?

22 A. A what?

23 Q. The connector and a splice?

24 A. A splice butts two wires together. In other
25 words, you got a broken wire here and a broken wire here.
26 You take a splice and you put it on the wire and you

1 press it. They use a press on it. And it puts it
2 together.

3 Q. Okay. Just some more basic ones because they're
4 going to come up. What is a conductor?

5 A. A conductor is aluminum or copper, whatever is
6 in the area at the time.

7 Q. Okay. Even more basic, aluminum or copper what?

8 A. You see your service coming into your house?

9 Q. The wire?

10 A. Yeah.

11 Q. Okay.

12 A. That's a conductor.

13 Q. That's what I was trying to get.

14 A. Okay.

15 Q. So when you're talking about conductors from
16 PG&E, from a professional transmission employee
17 standpoint wire -- the wires -- what most of us would
18 refer to as the wire is what you guys refer to as a
19 conductor; right?

20 A. That's correct.

21 Q. Okay. What's a jumper?

22 A. A jumper is where the wire comes in and there's
23 a set of bells on both ends and the jumper goes across
24 and ties two service -- two wires together. That's a
25 jumper.

26 Q. Okay. All right. I want to go ahead now and

1 define some of those terms I expect to come up later.

2 Let's go to the table 2.1-3: Conditions Found.

3 A. Yes.

4 Q. And same thing. If you can just kind of give us
5 a little description as to how to read this and what
6 these things mean.

7 A. Well, the first four is probably really
8 self-explanatory. If something is rusted, it's rusted.
9 If it's rotten, you -- everybody understands that. If
10 it's corroded, you know what corrosion is. And that's
11 basically what --

12 Earth-covered where dirt is stacked on top of
13 some type of guide or anchor, that needs to be cleaned.
14 And then you've got brush and fuel. You're talking about
15 how close the trees and the brush are. And you write a
16 ticket up for that to get that cleared. Or contamination
17 where you got clearance -- wire clearance where the wire
18 is not high enough off the ground to the conductor.

19 Q. And --

20 A. Encroachment means if you had a house or a
21 garage and you wanted to build underneath the tower line,
22 that's called encroachment. And that's a no-no. They
23 ask you to remove it so . . .

24 Q. Okay. And there were a couple I definitely
25 wanted to ask you about. Clearance. You said that has
26 to do with how high the wire is?

1 A. Yes.

2 Q. And there are parameters that are set?

3 A. Yes. What they do is they get a helicopter and
4 they run what they call LIDAR. LIDAR measures the
5 conductor to the ground. And if it's too low -- and it's
6 a federal mandated deal -- the company goes to the towers
7 and raises the conductor.

8 Q. Did you ever do that type of work?

9 A. Yes, Sir, yes.

10 Q. And we talked earlier about inspections. And
11 maybe this is a good time to go back to it. Now, there's
12 ground inspections, there's aerial inspections, and
13 there's climbing inspections?

14 A. Yes, Sir.

15 Q. Are there also LIDAR inspections?

16 A. Yes, there are. They're done by a private
17 company. We don't do that.

18 Q. Okay.

19 A. Okay?

20 Q. And how about infrared inspections?

21 A. A private company does that, too.

22 Q. Okay. So you as the employees of PG&E don't
23 actually do it? You hire somebody else to come in and
24 tell you the results?

25 A. Yes. That's how -- I don't know how it is now.
26 I've been gone for five years so who knows how it goes

1 now.

2 Q. Cool. And then let's see if we've got anything
3 else in here. What does birdcage mean?

4 A. I knew you was going to ask me that. Birdcage
5 is where the wire just completely opens up and you look
6 inside and all the strands just look like a ball of
7 string. It's just all blown up. It's --

8 Q. Have you seen birdcaging in your career?

9 A. Oh, many times, yeah.

10 Q. Do you know what causes birdcaging?

11 A. Trees falling against the conductor, a guide
12 hitting the pole with it, hitting a car with a pole,
13 yanking the conductor around. There's many things that
14 make that happen.

15 Q. Okay. A couple other real quick.

16 A. Sure.

17 Q. Out of plum?

18 A. Out of plum (indicating), plum (indicating), out
19 of plum (indicating), plum (indicating), out of plum
20 (indicating).

21 Q. Okay. Remember, I can see and I know they can
22 see exactly what you're doing.

23 A. Do you understand what I'm saying? You know, if
24 you guys had a little plum bob or put a bolt on a string
25 and looked at something. Well, if it's out like this
26 (indicating), it's out of plum. And then if you're

1 centered, it's in plum.

2 Q. And just for the record for the court reporter
3 because she has to write down everything that we're
4 doing, you're using your arm and your hands to show --

5 A. Yeah.

6 Q. -- straight up and down versus not straight up
7 and down.

8 A. Yeah. All the crews carry plum bobs. You know
9 what that is?

10 Q. Nope.

11 A. Even construction workers use plum bobs --

12 Q. Absolutely.

13 A. -- to make sure that everything is true.

14 Q. Yep. But we can't assume anything in here. And
15 we all have to start off as idiots. For me and some of
16 us it's easier than others.

17 But so we can walk through the basics and you
18 can explain it because obviously you have over 40 years
19 of experience doing this and you know this stuff a lot
20 better than we do.

21 A. I mean, just basic line. I don't know your job
22 and you don't know my job if you want to get technical
23 about it so . . .

24 Q. All right. That's it on this one.

25 Now I'm going to skip ahead to section three.
26 And we have already talked a little bit about the

1 different types of inspections. We are going to the page
2 BAIT stamped on the bottom 30766 and it's Table 3.1-1.

3 Find that table?

4 A. Yeah. Are you in "Guides For Assessing Priority
5 Codes"? Is that where you are?

6 Q. No, no.

7 A. Okay.

8 Q. We're "Overhead Inspection Frequencies."

9 A. That's 2.11.

10 Q. No, no. 3.1. Sorry.

11 A. Sorry. I'm a little behind here.

12 Q. That's okay.

13 A. That might be it right there, I think. Overhead
14 maintenance inspections. Got her. Okay. Got her.

15 Q. All right. We're talking about inspections?

16 A. Right.

17 Q. And you already talked about the difference
18 between an inspection and a patrol; right?

19 A. Yes.

20 Q. So this goes through what? The schedule for the
21 inspections?

22 A. Yeah. It gives you the voltage in the line, it
23 tells you inspection type, structure type, and inspection
24 frequency, and it tells you what -- how long -- what --
25 how many years you have to do steel on the ground and how
26 many years you have to do wood on the ground and then it

1 rolls over to aerial or helicopter.

2 Q. Okay. In your career did you have the
3 opportunity to work on the Caribou-Palermo line?

4 A. Yes.

5 Q. And what's the voltage on the Caribou-Palermo
6 line?

7 A. 115,000.

8 Q. 115,000 or 115 kVs?

9 A. Yes, Sir.

10 Q. So the Caribou-Palermo would fit in right here
11 under 115; correct?

12 A. That's correct.

13 Q. So let's walk through the different types of
14 inspections and the schedule for them for us, please.

15 A. Well, as you can see "detail inspection ground
16 aerial" the steel is five years and then for the wood
17 it's two.

18 Q. Okay. So if the 115 line -- and it's a steel
19 tower structure?

20 A. Yeah, the Caribou-Palermo is steel.

21 Q. Okay. Those have to be -- have to be a detailed
22 inspection every five years?

23 A. That's correct.

24 Q. But if they were a wood structure, every two
25 years?

26 A. That's correct, Sir.

1 Q. Cool. How about -- you talked about climbing or
2 aerial lift?

3 A. Yes. Either.

4 Q. Actually "detailed climbing or aerial lift" is
5 the exact terminology that uses.

6 A. It would be -- the aerial lift would be a bucket
7 and the climbing would naturally be climbing.

8 Q. Okay. So the aerial lift is different than
9 aerial inspection which would be aircraft?

10 A. That's correct.

11 Q. And it says in here for frequency "as
12 triggered."

13 A. Yes.

14 Q. In your experience, what does that mean?

15 A. Well, if they think that we have a problem on
16 it, they'll -- what the trigger mechanism is is it
17 triggers the ground. So we can ride the line all the way
18 out and look at it all. Or if something is down or
19 something, we've been known to fly it in the helicopter
20 to make sure we get right on it.

21 Q. Okay. And finally, again we talked about
22 infrared whether it's steel or wood. And the 115 --
23 those are done "as triggered" it says?

24 A. Yes.

25 Q. And that's done by somebody else?

26 A. Yes.

1 Q. But again, who makes the call on the triggers?

2 A. Usually our supervisor did.

3 Q. Okay. I want to flip over to the next page --
4 because it talks about the triggers -- and have you walk
5 through the triggers for us and educate us on what kinds
6 of things are going to trigger a climbing or aerial lift
7 inspection or infrared inspection on a 115 kV steel
8 structure.

9 A. Well, it could be the steel, it could be the
10 insulation, and it could be the conductor.

11 Q. So the first is component defects. What would
12 be the components of a steel structure or power on a 115
13 line?

14 A. It would be the steel naturally. And -- well,
15 and I forgot the footings. It could be the footings
16 which were concrete. And it could be the conductor or
17 the insulation or it could be the mechanism that holds
18 the conductor which would be a shoe. They call it a
19 shoe.

20 Q. All right. Wire or structure strike?

21 A. Yeah. Lightning or if somebody ran into it.

22 Q. Lightning strikes?

23 A. Yes.

24 Q. Is that a big deal? A big problem?

25 A. Big, big deal. Big deal.

26 Q. Did you have to investigate lots of those?

1 A. Pardon?

2 Q. Did you have to investigate lots of those?

3 A. Yes, Sir, yes.

4 Q. Let's see. Burned area or high fire hazard.

5 A. Yes.

6 Q. Could you explain how -- how that -- why that
7 triggers inspections?

8 A. Well, usually what that does, as you said, is
9 triggers the inspection. They want to make sure that any
10 combustible or flammable material is away from our
11 right-of-ways as far as poles and towers go so if we do
12 have a failure, we -- you know, we don't have a problem.

13 Q. I think everything else we can kind of go
14 through. All right. I think we can put that one away.
15 And I want to run through a couple more with you real
16 quick.

17 A. Are we good on this one?

18 Q. Yep, we're good on this one. You should have
19 another binder back there behind you that says "2010."

20 A. This guy is going to help me. I appreciate it.
21 Thank you, Sir.

22 Got it.

23 Q. All right. And on the first page inside the
24 binder you should see the exhibit tag number 152.

25 A. Yes, Sir.

26 Q. And do you recognize Exhibit Number 152?

1 A. Yes.

2 Q. What is Exhibit Number 152?

3 A. It just tells you what to do on the patrol for
4 the overhead. Typical electrical transmission problems.

5 Q. Okay.

6 A. Inadequate clearance, damaged conductor, broken
7 or leaning poles, missing or bent tower members. That's
8 what I was just talking to you about.

9 Q. Right. Good.

10 Do you recall this specific section or year?

11 A. No, Sir.

12 Q. All right. Do you recall if -- well, let me
13 rephrase that.

14 In your experience with PG&E, did they reissue
15 the entire ETPM if they made changes just to one portion?

16 A. Yes, Sir.

17 Q. Okay. You know, they wouldn't just reissue
18 section four in this case?

19 A. Not that I know of.

20 Q. Okay. But for whatever reason this is the
21 section for the January 2010 ETPM; is that correct?

22 A. I guess so, Sir.

23 Q. Is that what you're looking at?

24 A. Yeah. A lot of stuff I've been gone, like I
25 said. A lot of it I don't recognize.

26 Q. Right. I mean, year to year probably not. But

1 section four is the section that for years dealt with
2 patrol; correct?

3 A. Yes, Sir.

4 Q. And defines what is a patrol, how a parole is
5 different from an inspection, and those types of things?

6 A. Yeah. It gives the procedure and what to look
7 for.

8 Q. All right. Now, let's go on to 153.

9 A. Okay.

10 Q. Let's see. That should be the next one. That
11 will be the 2013 --

12 A. The next book?

13 Q. Yeah. The 2011 book.

14 A. I'm going to have to take a potty break here in
15 a minute.

16 Q. Okay. Just let us know.

17 A. Okay. 153 it is?

18 Q. Yes, 153. You recognize 153?

19 A. No. I'm -- it's just the number. I see the
20 number. I can't help you there.

21 Q. Do you recognize the documents that are in
22 there?

23 A. Yeah, some of them, Sir. Not -- a lot of it I
24 don't remember.

25 Q. What do you recognize it to be?

26 A. I just recognize the general information, the

1 acronyms on what you put down, and stuff.

2 Q. Okay. Which is -- this says on the page
3 "January 2011 Electric Transmission Preventative
4 Maintenance Manuel."

5 A. What's that now?

6 Q. It says on the page that this is -- and we're
7 talking about PGE-Camp-BC-000006866. This is TD1001
8 Electric Transmission Preventative Maintenance Manuel and
9 down at the bottom left corner January 2011; correct?

10 A. Gotcha.

11 Q. So does this appear to be the 2011 --

12 A. You know, Sir, I don't know. I haven't looked
13 at this book in five years. I can't -- you know.

14 Q. You can't distinguish between the years; right?

15 A. Well, I mean, I kind of recognize it a little
16 bit but not all of it. You know what I'm saying?

17 Q. Okay. No. And nobody would expect you to.

18 A. Thank you.

19 Q. We just kind of need -- this appears -- this
20 appears to be what it represents itself to be which is
21 that this would have been the manual that you would have
22 used when you were a troubleman in 2011.

23 A. I recognize some of the acronyms, but that's
24 about it.

25 Q. Can you flip through the rest of the book and
26 see -- just make sure that -- you know, if it looks to

1 you to be correct is the main thing we want to know.

2 A. I just remember just a little bit of it but
3 not -- I can't qualify if it's correct or not.

4 Q. Okay. We wouldn't want you to. Just want to
5 know if that appears to be the 2011 manual.

6 A. Okay.

7 Q. And we can go ahead -- while you're there, you
8 also have in front of you 154 and 155.

9 A. Okay.

10 Q. And if you could do the same thing with them,
11 we'll kind of short circuit all of this real quick.

12 A. Okay. I got 155.

13 Q. Okay.

14 A. I'm at Table of Contents. Is that what you
15 want?

16 Q. I just want to know do you recognize 155 and
17 does it appear to be the 2013 -- I'm sorry. The 2015 --
18 we skipped one. The 2015 Electric Transmission
19 Preventative Maintenance Manuel?

20 A. Yeah. In 2015 I was retired.

21 Q. Okay. When did you retire?

22 A. Hell, I don't even know.

23 Q. Did you retire at the end of '14?

24 A. Yeah, just about where it turned about 2015,
25 yeah.

26 Q. Okay. So you probably didn't use the 2015

1 manual?

2 A. No, Sir. I can't help you.

3 Q. Let's go to 154 then which would be the 2014
4 manual.

5 A. Got it.

6 Q. And same question. Do you recognize that? Does
7 it appear to be the 2014 manual that you used?

8 A. Some I recognize and some I don't.

9 Q. Okay.

10 A. Yeah, it pretty well tells just all the basics
11 of what everybody has done.

12 Q. Okay.

13 A. You know, they tell the insulation district. We
14 have insulation districts like the coast, mid valley and,
15 of course, you know, the upper hill up in the snow
16 country.

17 Q. So reviewing 154 it appears to be what it
18 represents itself to be?

19 A. Yes, Sir.

20 Q. Okay. Do you need a break now?

21 A. Yeah. If you would, that would be great.

22 MR. NOEL: Madam Foreperson, can we take a brief
23 break and let (WITNESS #1) use the restroom?

24 GRAND JURY FOREPERSON: Yes, Yes.

25 [Recess taken from

26 3:47 until 3:53 p.m.]

1 MR. NOEL: Call us back to order.

2 GRAND JURY FOREPERSON: Okay. Back to order.

3 MR. NOEL: All the jurors are present and
4 accounted for?

5 GRAND JURY FOREPERSON: All the jurors are
6 present and accounted for.

7 **EXAMINATION CONTINUED**

8 BY MR. NOEL:

9 Q. All right. (WITNESS #1), I'd like to switch
10 gears now and start talking specifically about the
11 Caribou-Palermo line.

12 Now, if I forget, how long did you work on the
13 Table Mountain Sub?

14 A. Work at Table Mountain? Is that what you said?

15 Q. Yes.

16 A. Ten years. Approximately ten years. I don't
17 really know the numbers, but I'm thinking ten.

18 Q. And did you regularly work on the
19 Caribou-Palermo 115 line?

20 A. No, Sir.

21 Q. As a troubleman did you regularly inspect or
22 patrol the Caribou-Palermo 115 line?

23 A. Yes, Sir.

24 Q. And do you recall how many years you did?

25 A. No, Sir.

26 Q. I have up on the big board and in front of you

1 the actual exhibit marked as Exhibit Number 156. Do you
2 see 156?

3 A. Yes, Sir.

4 Q. Do you understand or do you recognize what is
5 depicted in 156?

6 A. Yes.

7 Q. What is depicted in 156?

8 A. It's tower numbers.

9 Q. Okay. Can you walk us through 156 starting at
10 the top right and let us know what we're seeing.

11 A. Well, they're starting from the Caribou
12 Powerhouse as the name Caribou-Palermo. And it goes all
13 the way down in Palermo sub that you see on the bottom.
14 So the numbers are started from 000001. That would be
15 tower one all the way down to Palermo sub.

16 Q. Okay. So Palermo sub is down here in the
17 bottom?

18 A. Yes, Sir.

19 Q. And Caribou Powerhouse is up here in the top?

20 A. Yes, Sir.

21 Q. And what are all the yellow pins in between?

22 A. That's the color of the transmission line. In
23 other words, the 115s are yellow.

24 Q. Okay. And do you recognize this to be the
25 Caribou-Palermo line?

26 A. Yes, Sir.

1 Q. Now, what do you know about -- in your
2 experience your training about the Caribou-Palermo line
3 when you first started working on it?

4 A. That it was the original Old Bay Line to San
5 Francisco. It's 100 years old.

6 Q. How do you know that?

7 A. Because of the markings and the -- they painted
8 over the other markings. I could see them on the steel
9 on the tower legs. They were the bay lines.

10 Q. All right. Now, I want to move on to Exhibit
11 Number 157, the big packet there in front of you. I'll
12 ask you to take a look and flip through that packet. And
13 I'm going to ask you if you recognize what that packet
14 is.

15 A. Yes. The patrol schedule.

16 Q. Okay. What do you mean by the patrol schedule?

17 A. It's a listing of the towers that you patrol to
18 find if anything is wrong.

19 Q. Okay. And is this a document that you would
20 have filled out?

21 A. Yes.

22 Q. All right.

23 A. In fact, my name is on it, I believe.

24 Q. So let's start with page 1.

25 A. Yes.

26 Q. Which is up here on the big board.

1 A. Okay.

2 Q. And this says -- this is BAIT stamp number
3 PGE-Camp-CF-0000001136.

4 A. Yes, Sir.

5 Q. 7/13/2009. What is that?

6 A. The date that I patrolled it. That's when they
7 probably get the paperwork. These come out of
8 Sacramento, Sir.

9 Q. Okay.

10 A. And they send them to our work headquarters.

11 Q. Okay. There's a handwritten note "detailed
12 patrol."

13 A. Right.

14 Q. Do you recognize that?

15 A. Yes, Sir.

16 Q. And what does detailed patrol mean?

17 A. The same thing as ground.

18 Q. Okay. Going back to when we were talking about
19 the ETPM and the types of --

20 A. Right.

21 Q. So this is a five-year patrol?

22 A. Yes, Sir.

23 Q. Down here in the bottom handwritten "Star, no
24 prior star." Do you know what that means?

25 A. No priors. Because -- the reason why is because
26 they're all wrote up here. Every connector, every tower

1 on that is all wrote up to be repaired.

2 Q. Okay.

3 A. And there's probably about eight or nine pages
4 in here to be repaired.

5 Q. Okay. So that's what we're going to get to here
6 in just a second. But I'm not quite sure how no priors
7 ties in to your data inspection sheet.

8 A. Well, she just looked at it right now and they
9 said that there's no priors. Until I patrol it, then
10 there might be something.

11 Q. And what would be a prior?

12 A. A prior would be right here, Sir. If you come
13 up here, I'll show you.

14 Q. Okay. Are you talking about the data inspection
15 sheet?

16 A. Yeah. This is --

17 Q. Okay.

18 A. You see all this down in here (indicating),
19 that's all priors.

20 Q. Okay.

21 A. There's probably eight or ten sheets of it on
22 that line.

23 Q. Okay.

24 A. Okay?

25 Q. We'll get to that.

26 So next I want you to go -- well, I should not

1 have done that. I have page 48 of 392 from Exhibit 151.

2 A. Page 48.

3 Q. Which is the 2009 manual. And I should not have
4 put that away. So here. I'm going to get you this one.

5 A. You've page 48. Is that what we're working on?

6 Q. No. Page 48 in this one. I want to lay --
7 we're going to lay a little foundation here.

8 A. All right.

9 Q. Let's see. 30717. There we go.

10 A. Okay. Gotcha.

11 Q. Okay. Now we're in Exhibit 151 which is the
12 April 2000 Electric Transmission Preventative Maintenance
13 Manual specifically on page 48 of that which is
14 PGE-Camp-BC-00030717.

15 And you're on that same page; correct?

16 A. Yes, Sir.

17 Q. And this -- tell us what we're looking at here.

18 A. This is just a transmission -- like I said, a
19 transmission line option list. What you see is what you
20 put down.

21 Q. Okay. Is this something that you used as a
22 troubleman?

23 A. Yes.

24 Q. And how would you use this form?

25 A. I'd carry this book with me. And if I saw
26 anything, I'd write it down in the book of loose steel or

1 a loose -- a broken conductor or whatever.

2 Q. So is this a standard PG&E form?

3 A. As far as I know, Sir.

4 Q. Or it was when you were doing it?

5 A. It was when I was doing it, yes.

6 Q. Okay. So now let's go back and let's put that
7 manual back away.

8 A. Okay.

9 Q. I'll get it out of your way.

10 A. Thank you.

11 Q. And let's go back to the 2009 inspection report.
12 And I want you to flip to page 59 --

13 A. Fifty-nine.

14 Q. -- of that which I have up in front of you.
15 I'll refer to it as the transmission line object list.
16 It would be page 46.

17 A. Forty-seven. I was going to say there is no 59.
18 Okay.

19 Q. All right. So tell us what we're looking at
20 here.

21 A. Just the line patrol option list. Every tower
22 you go to if there's something that's -- that's wrong,
23 you put -- like it says right here on this tower
24 "Completed" or it says "Completed, new findings." Okay.
25 We wrote the connectors up on it.

26 Q. Okay. So let's just walk through this first.

1 Who is the listed inspector?

2 A. Me.

3 Q. Is that your handwriting?

4 A. Yes, Sir.

5 Q. And the date of the inspection?

6 A. Correct.

7 Q. What's that date?

8 A. '09.

9 Q. The actual date.

10 A. Eight. It looks like 8/23/09.

11 Q. Okay. Earlier when we were talking and we were
12 looking at the front page of the 2009 inspection, it had
13 the date of July 30th.

14 A. Okay.

15 Q. Or no. July 13th. I'm sorry. Two different
16 dates. Can you explain why we have two different dates.

17 A. Because they give you time to -- a start time
18 and end time, which it shows you right here (indicating).

19 Q. Okay.

20 A. And also there might have been another job where
21 I had to go work so I had to break off the patrol.

22 Q. Even more basic, this is a detailed ground
23 inspection; correct?

24 A. Yes.

25 Q. How long does it take you to do that?

26 A. Well, how long you would think it would go from

1 Palermo sub through the canyon to Caribou Powerhouse.

2 Q. How much -- how many -- well, we'll get to that
3 in a second.

4 How much time do you spend on each structure?

5 A. I spend probably anywhere from 15 to 20 minutes.
6 You've got to understand, Sir. See -- and I don't mean
7 to rattle on here, but here's the deal. It takes me two
8 hours to get in the canyon from Table Mountain and two
9 hours to get out plus I'm dealing with rocks. That line
10 was built with men and mules. So you can imagine what
11 the trails look like. You've got to walk every bit of
12 it.

13 Q. It is pretty amazing to be up there.

14 A. I mean, you have to get in the helicopter, go up
15 there. If everybody has been in Feather River Canyon,
16 you know how rough it gets around the Powerhouse. Them
17 towers are all the way up at the top of the hill. And
18 we've got to go up there no matter how, if we've got to
19 crawl, walk, or whatever we've got to do.

20 Q. So going back to where we started with this,
21 this isn't a one-day or --

22 A. No, Sir.

23 Q. -- one-week job --

24 A. No, Sir.

25 Q. -- when you're on these inspections?

26 A. They give you 30 days right here. They give you

1 30 days like 8/1/19 to 8/30/19. They give you 30 days to
2 complete the work.

3 Q. Okay.

4 A. And they got a little testy if you ran it over
5 so . . .

6 Q. Okay. So you're spending multiple days on this?

7 A. Yeah, multiple.

8 Q. And so when we look back on this inspection
9 report up here on the top on your transmission line
10 object, are there different dates on different pages?

11 A. Yeah. I imagine that there would. I haven't
12 looked at this in a long time. So I imagine there are
13 different dates on here.

14 Yeah, there are. 8/13, 8/27. Yeah. So I might
15 have been switching that day. Because we have to switch
16 with the crews to clear a line so they can work.

17 Q. What does it mean to switch?

18 A. Well, that is to open a big air switch or go in
19 the substation and manipulate the equipment and open the
20 line up. And our areas are so big from when I left Table
21 Mountain, I'd have to go -- like switching I'd have to
22 go -- sometimes go almost all the way into the Eureka
23 area to open switches up to get the crew -- so I could
24 get the crew reported on the line. That would take me
25 anywhere from four to five hours driving up and probably
26 four or five back. So if I'm patrolling that line in the

1 canyon, you can see how that works.

2 Q. It takes a lot of time?

3 A. Yes, Sir.

4 Q. Okay. All right. So let's go back through
5 this. Page 46 "10391 Caribou-Palermo non-wood pole."
6 Can you explain what any of that means?

7 A. Non-wood. Exactly what it means. It's steel,
8 non-wood.

9 Q. Okay. What about the 10391? Are you familiar
10 with that?

11 A. Yeah. That is the designated number for the
12 line.

13 Q. And that is the Caribou-Palermo 115 KV line?

14 A. Yes, as far as I know. Excuse me. I'm wrong.
15 I'm wrong. If you look over in the left-hand corner, it
16 says "ETL." See where it says "ETL"? Where it says
17 "Location ETL"?

18 Q. Yeah.

19 A. That's the line number; 3190 electric
20 transmission line number. I was wrong on that.

21 Q. Okay. So what is the 10391? Do you know?

22 A. No, Sir, I don't.

23 Q. Okay. That's fine.

24 All right. Then we go down into this looking at
25 the individual blocks on here. And the first line across
26 the top, if you could explain to us what all this means.

1 A. Well, all it does it just tells you what every
2 tower of what equipment is on it, how the framing, how
3 the access is. And you go over here and the inspection
4 results and it's just -- and your notes and stuff like
5 that. It tells you how each tower is framed, what kind
6 of conductor it's got on it, what kind of bells and
7 everything it's got on it.

8 Q. Okay. So let's look down here -- the second one
9 town 27/222.

10 A. Yes.

11 Q. It says "lattice steel tower."

12 A. Yes.

13 Q. What is a lattice steel-style tower?

14 A. It just a regular old tower like you'd see out
15 here on the road somewhere.

16 Q. And then we have number 40702271. Do you know
17 what that number is for?

18 A. Yeah. That's -- I believe that 405 or 40559.
19 Is that what you're saying?

20 Q. Yeah, 4070227.

21 A. That is the sap number.

22 Q. What is a sap number?

23 A. The number assigned to the tower. So if you
24 want to bring it up in the computer, you plug that number
25 in and the line name, and it brings that tower up.

26 Q. Okay. So that's an individual identifier for

1 this tower?

2 A. Yeah. Every tower, everything in the system is
3 all identified by the sap numbers.

4 Q. Next it says "trap double dead end."

5 A. Yes.

6 Q. What does that mean?

7 A. The conductor comes into the tower, stops, and
8 then it rotates like this. And then when it goes out,
9 it's different than it's coming in. In other words, the
10 word is called transposition. That's what it mainly
11 means if you've done your math or whatever. The
12 conductor comes in and rolls up like that. When it goes
13 out, this wire -- the field wire would be on the road
14 wire and the middle wire might be on the field wire.

15 Do you know what I'm saying? And that's -- the
16 idea of that that's to break up the corona fields.

17 THE COURT REPORTER: I'm sorry. Break up the
18 what fields?

19 THE WITNESS: Corona.

20 THE COURT REPORTER: Corona. Thank you.

21 THE WITNESS: You know, the sun's got corona
22 rings around them. That's what it is.

23 THE COURT REPORTER: Okay. Thank you.

24 THE WITNESS: Yeah.

25 MR. NOEL: Not the beer.

26 BY MR. NOEL:

1 Q. All right. As you were -- as you were
2 discussing that, just for the record, you were
3 maneuvering with your arms and crossing your arms back
4 and forth as you were discussing how the wires cross over
5 each other on the transposition tower.

6 A. Do you have a picture of one here?

7 Q. I sure do. That is going to be the next -- one
8 of the things we're going to look at.

9 A. That's it. There it is right there.

10 Q. Okay.

11 A. There's a transmission -- transposition tower
12 right there.

13 Q. That is Exhibit 158?

14 A. That's correct, Sir.

15 Q. So let me skip ahead because we're going to get
16 back to some other stuff.

17 A. There you go.

18 Q. We'll come back.

19 This is what you call a transposition tower?

20 A. Yes, Sir.

21 Q. Explain this to us.

22 A. As the wire comes in, you can see it coming in.

23 Q. And feel free if you want. You can come out
24 here and use the board and point all you want.

25 A. But everybody has a picture of it, I take it.
26 Anyway, see the wire come in. See what it does? It goes

1 right up this insulator. And then now going out it's a
2 center wire. Okay. And then this one here is going up
3 and going out, and now this is this (indicating)
4 conductor. It goes like that. And then this lattice
5 goes -- brings this conductor all the way across the
6 tower and goes up. Now it's that wire.

7 And what happens is they -- the reason they do
8 the transmission, like I said, is because it breaks up
9 the corona field. And if you guys remember from school
10 the sun's got the corona rings around it. And that's
11 what it does. Because if they don't do it, it causes
12 really bad radio interference and TV interference.

13 Q. So the photograph 158 you obviously recognize as
14 a transposition tower?

15 A. Yeah.

16 Q. Do you recognize this individual tower?

17 A. Not really, Sir.

18 Q. No. I don't expect you to.

19 Do you recognize what line this tower is on?

20 A. It's the Palermo.

21 Q. Caribou-Palermo line?

22 A. Yes, Sir.

23 Q. Okay. The 115 line?

24 A. Yes.

25 Q. So just so we can -- just as long as we're up on
26 that, are we looking at the front side of this tower or

1 the backside meaning the supply side or the distribution
2 side?

3 A. I would say right now we're looking at the
4 backside of it going forward to Caribou. Because I'm
5 just looking at the numbers. See the yellow numbers on
6 the leg there. Yeah, that's the number of the tower
7 right there. Usually it goes -- like they might be
8 numbered from Puellarum or Caribou or visa versa
9 depending on what engineer is doing it.

10 Q. Okay. And then there's another number up here.

11 A. Yeah. That's the mile number.

12 Q. Okay.

13 A. There are "X" amount of towers in a mile. Maybe
14 10, 20.

15 Q. Explain that for us. We may not have had that.

16 A. What happens is when they were build these
17 lines, say there's ten towers and ten towers and ten
18 towers. Well, it starts off mile 1, mile 2, mile 3, and
19 mile 4 and so on.

20 Q. So let's back up a little bit to our map Exhibit
21 Number 156. And can -- we kind of skipped over it, the
22 naming convention for those towers. You were talking
23 about how the towers are listed there.

24 Can you explain using the map and what we're
25 looking at to how that works.

26 A. Well, what they're doing they are numbering from

1 the powerhouse to the sub. That's how they're numbering
2 what I can see of it.

3 Q. Okay.

4 A. In other words, what happens is if you look down
5 and the numbers say, like, 22, that's the 22 mile and
6 that is the one hundred and eighty-fifth tower.

7 Q. Okay.

8 A. All right.

9 Q. And then, for instance, we have the 27th mile?

10 A. Yes.

11 Q. 27/222?

12 A. Yeah.

13 Q. And so that tower is 27 miles downstream from
14 the source, the Caribou Powerhouse?

15 A. That's correct, Sir.

16 Q. And it is the two hundred twenty-second in line?

17 A. That's correct.

18 Q. And then all of these -- but this line kind of
19 does something where it goes all the way down and we get
20 to 35281 and then not all the towers are in here. And
21 then it goes back to 16.

22 A. The reason for that, Sir, there is a substation
23 right there.

24 Q. Okay. That's exactly what I was going to ask
25 you. There's a substation here?

26 A. That's what broke the numbers up.

1 Q. Okay. So what substation is there?

2 A. I can't think of it offhand.

3 Q. Would that be Big Bend?

4 A. Yes, Sir, that's correct.

5 Q. Okay. So the power comes in from Caribou
6 Powerhouse, gets to Big Bend, and then it's -- the
7 numbering system starts over again?

8 A. Yes.

9 Q. Because Big Bend and Caribou --

10 A. It heads down to Palermo.

11 Q. Okay. Thank you. I probably should not have
12 skipped that earlier.

13 Okay. So let's get back to 157 while we're
14 here. We are talking about 27/222.

15 A. Okay.

16 Q. And just in general for all of these things,
17 what are these numbers in the right corner?

18 A. If you notice, they are longitude and latitude.
19 I can't even talk now. They're long attitude and
20 latitude. They are for GPS.

21 Q. Okay.

22 A. In other words, you put that in the computer, it
23 pulls the tower right up. Tell you exactly where it is.

24 Q. So this is a form -- the transmission line
25 object which is a form that you take out in the field
26 with you when you're doing these inspections?

1 A. Yes, Sir.

2 Q. Do you provide this information that is in
3 the -- the left-hand column or --

4 A. No, Sir. It's already there.

5 Q. Okay. So that -- this left-hand column comes
6 prepopulated?

7 A. Yes.

8 Q. And then what about the right-hand columns?

9 A. That is our responsibility.

10 Q. Okay.

11 A. But I mean, it's all filled out as you see. We
12 just got to do the "X"s and "O"s and write our findings.

13 Q. Okay.

14 A. Like right here where I wrote "Connecters."

15 Q. Right.

16 A. Okay.

17 Q. So we're looking at 27/222. And then in the
18 check boxes can you tell what you checked.

19 A. 27/222?

20 Q. Yep.

21 A. I checked "Completed, new findings." And that
22 was the connectors.

23 Q. Okay.

24 A. So usually every one of these connectors for
25 everything has pictures.

26 Q. Okay. Was that your normal practice to take

1 photographs?

2 A. That's correct of everything, of everything that
3 is broke.

4 Q. So somewhere out there there should be
5 photographs of that?

6 A. That's correct, yeah.

7 Can we 905 again?

8 Q. Pardon?

9 A. Can we 905 again? I mean, I need to go to the
10 bathroom.

11 MR. NOEL: Oh, okay, absolutely.

12 It's 4:15. Do you want to break for the day?
13 Obviously, we're not going to finish this witness and
14 we're going to have to talk about scheduling to get him
15 back in here.

16 THE COURT: I think so.

17 MR. NOEL: Okay. Sir, you go ahead and go to
18 the restroom.

19 THE WITNESS: Thank you.

20 MR. NOEL: Actually, do you want to give him the
21 admonition.

22 GRAND JURY FOREPERSON: I have already done
23 that, but I'll remind him.

24 THE WITNESS: Yes, you have, my dear.

25 MR. NOEL: Go ahead and do it again.

26 GRAND JURY FOREPERSON: Okay. I have to do this

1 again.

2 THE WITNESS: Wonderful.

3 GRAND JURY FOREPERSON: Okay. Good. You are
4 admonished not to discuss or disclose at any time outside
5 of this jury room the questions that have been asked of
6 you or your questions -- or your answers until authorized
7 by the grand jury or the Court. A violation of these
8 instructions on your part may be the basis for a charge
9 against you of contempt of court. This does not preclude
10 you from discussing your legal rights with your own
11 attorney.

12 Do you understand?

13 THE WITNESS: Yes, Ma'am, I do.

14 GRAND JURY FOREPERSON: Okay. I'm sorry. I
15 forgot your last name.

16 THE WITNESS: (WITNESS #1).

17 GRAND JURY FOREPERSON: (WITNESS #1), what I have
18 just said is a warning not to discuss the case with
19 anyone except the Court, your lawyer, or the district
20 attorney.

21 THE WITNESS: Okay.

22 GRAND JURY FOREPERSON: You understand?

23 THE WITNESS: Yes, Ma'am.

24 GRAND JURY FOREPERSON: Okay.

25 THE WITNESS: Thank you.

26 MR. NOEL: Okay. So we will let you go to the

1 restroom, (WITNESS #1).

2
3 (PROCEEDING OMITTED.)

4
5 [Recess taken from
6 4:18 until 4:20 p.m.]

7
8 (PROCEEDING OMITTED.)
9 [Matter adjourned at 4:36 p.m.]

10 --oOo--

COURT REPORTER'S CERTIFICATE

This is to certify that I, Lisa McDermid Welch, a Certified Shorthand Reporter of the State of California was present at the time and place the foregoing grand jury proceedings were had and taken in the within matter; and that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings; and afterwards caused my said shorthand writing to be transcribed into typewriting; and the foregoing pages, beginning at the top of Page 1 to and including Page 68 hereof, constitute a full, true, accurate, and complete record of the proceedings.

DATED: This 6th day of June, 2022.

Lisa McDermid Welch

LISA MCDERMID WELCH, CSR, RPR
CSR LICENSE NO. 10928

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

BCSC-2019-GJ-01

REDACTED
CERTIFIED
COPY

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, JUNE 11, 2019

VOLUME 9

OROVILLE, BUTTE COUNTY, CALIFORNIA

JENNIFER L. HUNT, CSR 10735, OFFICIAL COURT REPORTER

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OROVILLE, BUTTE COUNTY, CALIFORNIA

TUESDAY, JUNE 11, 2010

8:30 a.m.

(Confidential Grand Jury Proceedings)

-oOo-

[ROLL CALL OMITTED.]

[DISCUSSION OMITTED.]

GRAND JURY FOREPERSON: (WITNESS #17), before
you have a seat, would you please raise your right hand
so I can swear you in.

(WITNESS #17): Okay.

GRAND JURY FOREPERSON: Thank you.

(WITNESS #17)
having been called as a witness in
the matter now pending, having been first
duly sworn, testifies as follows:

THE WITNESS: I do.

GRAND JURY FOREPERSON: Thank you. Have a
seat, please.

EXAMINATION

BY MR. NOEL

Q. (WITNESS #17), could you please state your full

1 name and spell your last name for the record?

2 A. It's (WITNESS #17). It's (SPELLING REDACTED).

3 Q. Let's pull this microphone up a little bit
4 closer. You stay where you're comfortable, and we'll
5 pull the microphone to you.

6 (WITNESS #17), are you employed?

7 A. No, I'm not. I'm retired.

8 Q. Retired from what?

9 A. Pacific Gas & Electric Company after 40 years.

10 Q. You spent 40 years with PG&E?

11 A. Yes.

12 Q. When did you start with PG&E?

13 A. 1969, April. And started in San Francisco as a
14 helper in the electric department. Went into apprentice
15 lineman, lineman, eventually went into supervision and --

16 Q. All right. How did you get started with PG&E?

17 A. Well, the way I got the job is the guy I was
18 working with interviewed with them, and I had had like
19 two months left in the Army, and he said, "Hey, this
20 company's looking for employees, you should get on and
21 apply with them." And I did, and then they hired me.
22 Very surprised.

23 Q. So you started in 1970 or 1969 as what?

24 A. Groundman.

25 Q. What is a groundman?

26 A. It's basically a person that helps on the

1 electric crews to pick up all the crap they throw down
2 and anything's broken, burned, whatever; you're the
3 person who digs the holes when they're setting poles,
4 drive stuff up and down the hills. You're the gofer, as
5 many people call them.

6 Q. How long were you groundman?

7 A. Just a little bit over a year.

8 Q. Did you stay with the company at that point?

9 A. Yes. I went into apprenticeship while I was in
10 San Francisco, went through I guess two years, it's a
11 three-year apprenticeship, where you go through training.
12 Some of the training schools are down by Fresno and some
13 of it's basic electric. You go through a lot of how to
14 -- you just kind of progress, go through the early
15 schools, how to tie knots and things like that. And then
16 you progress into learning basic electricity. Then you
17 learn how to do work on energized lines, up to and
18 including 500,000 volts. And at the end of the three
19 years get tested. You have to pass certain tests. Then
20 you become a journeyman. And --

21 Q. Okay. Let's stop you right there. First of
22 all, you've -- around 1970, sometime in 1970, you entered
23 into the apprentice lineman program; correct?

24 A. Correct.

25 Q. What is a lineman?

26 A. Lineman, they're people that do work on

1 electric, both overhead and underground. They train you
2 to -- in San Francisco, if you're there, mostly working a
3 lot of underground work and climbing poles doing 12,000
4 volts or less. If you go out into other areas that have
5 the higher voltage lines, you end up working on those.
6 But when you, when you start out like that, you're
7 getting called in on a lot of emergencies; you know,
8 houses, one house out, car poles, things like that.
9 You respond to a lot of emergencies.

10 And you have an opportunity to move around
11 within the company. And so I went from San Francisco to
12 Oakland, to Richmond, Vallejo, Napa. I like change. I
13 hate things that are always the same. So I moved around
14 to get that change without having to quit the company,
15 because at one point I considered doing that just so I
16 could travel. But ultimately I did it by moving from
17 headquarters to headquarters. But I've always stayed in
18 the Bay Area, loved the Bay Area.

19 Q. Okay. Let's go back to talking about being a
20 lineman.

21 A. Okay.

22 Q. And basically. Correct me if I'm wrong. But
23 it sounds like the linemen are the guys who fix things on
24 the electrical lines?

25 A. That's correct.

26 Q. All right. Do you know, is there a difference

1 between distribution and transmission?

2 A. There's -- the difference is the voltage
3 levels. So anything 60,000 volts and above is
4 transmission; and below that is distribution.

5 Q. So you were talking about working on overhead
6 lines, climbing poles in San Francisco, and working on 12
7 kV lines; correct?

8 A. Correct.

9 Q. So those would be distribution lines?

10 A. Correct.

11 Q. Did you, as a lineman in San Francisco, work on
12 transmission lines?

13 A. No, I did not.

14 Q. At some point in your career did you begin
15 working on transmission lines?

16 A. Yes. When I went in, like three moves later I
17 was in Richmond, we had problems there on the
18 transmission lines where trees took the lines down. I
19 was out at work working putting those lines up. Then I
20 went into Vallejo, and Vallejo had a lot of transmission
21 lines. And whenever they would have a problem, they
22 would call us to go do the repairs on those kind of
23 lines. But that was the extent -- you would only
24 basically go out if they had an emergency. If they were
25 building new lines, doing major modifications, they
26 brought in these crews, other PG&E crews that were hired

1 to move around. They're called general construction
2 crews.

3 Q. Okay. When you started as an apprentice
4 lineman somewhere in 1970, were there divisions within
5 PG&E between transmission and distribution?

6 A. Yeah. It was, it was a total different --
7 well, the local headquarters, they had the responsibility
8 for transmission and distribution maintenance, but if
9 there was any large jobs, then they would bring in these
10 general construction crews to come in and do the work.
11 But --

12 Q. Okay.

13 A. -- we just took care of our area.

14 Q. When you were trained as an apprentice lineman
15 in the early '70s, when you were in San Francisco, were
16 you trained in both working on distribution lines and
17 working on transmission lines?

18 A. The only training I got was through the
19 apprentice program.

20 Q. Right.

21 A. Where they taught us how to replace the
22 insulators on towers while the line's energized. So it's
23 part of a one-month training where you go through this
24 school and do this training. And then later on, when I
25 was in Vallejo, I started training others because I
26 really liked doing it.

1 Q. Right. Let's stick with just talking about
2 when you're an apprentice and what training you were
3 given to work on transmission lines.

4 A. Okay. It was only how to replace the
5 insulators while they're energized.

6 Q. Okay. So eventually did you graduate from the
7 apprentice program and become a journeyman lineman?

8 A. Yes.

9 Q. Approximately what year did that occur?

10 A. It would be '73.

11 Q. And what does a journeyman lineman do?

12 A. You're expected to basically do anything with
13 electric; overhead, underground, transmission,
14 distribution. You were expected to be able to do it all.

15 Q. Jack of all trades?

16 A. Yes.

17 Q. Worked on transmission as well as distribution?

18 A. Yes. Mostly the, like I said, most of the
19 transmission was emergency response stuff or damaged
20 equipment stuff.

21 Q. So you started your career in San Francisco,
22 then you said at some point you moved out to the East Bay
23 to Richmond, Vallejo area?

24 A. Yes.

25 Q. Do you recall when that happened?

26 A. It would have been maybe '76, '7 -- let me

1 think. It might have been '78. It's a lot of years
2 since then. But I would say somewhere in the '77, '78
3 range.

4 Q. Okay. Now, in San Francisco -- excuse me -- in
5 San Francisco, you said most of your work was in
6 distribution and underground?

7 A. Correct.

8 Q. Once you got out to the East Bay, did you do
9 more work on overhead transmission lines?

10 A. Well, most of the work was overhead, wood pole
11 lines, the old, old poles that -- you know, Oakland's
12 been around a long time, so their facility is very old in
13 the old areas. So they need a lot of work. So we did a
14 lot of that, and it was mostly in the, in the
15 distribution. Transmission was only on the emergencies.

16 Q. Okay. Did you at that time as a lineman, were
17 you aware of any kind of inspection program for
18 transmission lines?

19 A. No, not at all. I was never involved in those.

20 Q. So how long were you out in the East Bay as a
21 journeyman lineman?

22 A. Gosh, I'm thinking I went -- well, I was in --
23 if you count Vallejo as part of the East Bay, I was there
24 until around '86; I believe I got, I got promoted into
25 management. But how many years I was in Oakland versus
26 Richmond versus Vallejo, I really don't have that exact

1 number.

2 Q. Okay. Do you remember during that time any
3 training that you received on working on transmission
4 lines?

5 A. No.

6 Q. Now, at some point you said you were promoted
7 into management?

8 A. Yes.

9 Q. Tell us about that, please.

10 A. Well, I had been working in Vallejo for a
11 number of years, went up to Napa, came back to Vallejo,
12 and this guy I was working with had, one of the foremean,
13 had a heart attack. So they asked me to fill in for the
14 guy. And at that point, I really didn't want to be a
15 supervisor, but, you know, you work in small groups and
16 you're going to do what you can to help out. So I
17 started doing some work in management, and I realized I
18 liked it. And there was -- I liked going out in front of
19 the crews, getting everything set up so the crews could
20 do the work as efficient as possible. I started filling
21 in there, and then the perma job came open there. This
22 guy never did come back from his heart attack, and they
23 promoted me into the supervisor job there in Vallejo.

24 Q. What were you supervising at that point?

25 A. It was almost all distribution. You had -- all
26 these transmission lines ran through the area, and if

1 they had any problem, they'd call us and we'd have to go
2 find out what the problem was and work through it. But
3 that was -- and then I was also doing some training of
4 other linemen on how to replace insulators energized.

5 Q. Okay. So let's talk about the teaching that
6 you were doing. Describe that for us.

7 A. Well, we have this trailer that's set up with
8 all these special tools. And so if you have -- you have
9 problems in a lot of country areas where people shoot the
10 insulators out off the towers. So we would go in and
11 replace them. If you don't replace them, it's going to
12 eventually short out you're going to have problems on the
13 lines.

14 So we would go in and, you know, we'd -- a
15 patrolman would report them to us, we'd go in and change
16 them out energized. So we'd pull this trailer out and
17 you'd get all these specialty tools out. Really what
18 they need is somebody who knows where all the tools mount
19 on the tower and how to keep in control of the wire so
20 you can pick it up. You've got these 12-foot long
21 fiberglass sticks with a little hook on the end that pulls
22 the cotter pin out so you can release the insulators,
23 take them out.

24 I mean, it's quite an extensive process, but
25 for some reason it really fascinated me and I enjoyed
26 doing it. So I worked with training; particularly had

1 new apprentices coming through, new linemen that hadn't
2 done it. I would train them on how to change the
3 insulators.

4 Q. You're talking about changing those insulators
5 while the line is energized; right?

6 A. Correct.

7 Q. So you don't have to shut down the line to take
8 all those parts off?

9 A. Many cases. It's not always the case, but I
10 would say in 90 percent of them, yes.

11 Q. You've talked about using a 12-foot fiberglass
12 pole to pull a cotter pin?

13 A. Yes.

14 Q. Can you describe for us what you're talking
15 about?

16 A. Well, in the top of the insulator is like a
17 little hub thing. And the cotter key is -- cotter pin is
18 what keeps the insulator on there in heavy winds and
19 stuff. Without it, it could vibrate and fall off. So
20 you have to pull that pin out, then you pick up the
21 weight of the wire, and using other hot sticks, you lift
22 those insulators out of there, drop them down where
23 they're away from the energized wire, bring new ones up,
24 put them back in place, put the cotter pin back in, and
25 you've got it fixed. It's kind of a -- probably it takes
26 a half a day to just do one insulator string.

1 Q. So what is holding the insulators to the tower?

2 A. There's a -- it starts with the tower itself is

3 steel, it's got a, usually a piece of steel with an eye

4 in it, then there's a hook that goes in that eye. Then

5 depending on the voltage depends on how many of these

6 insulators you put on. So in round numbers, it's, it's

7 like for 60,000 volts, you've got 6 insulators, sometimes

8 7. Depends on the corrosion areas and other factors.

9 But for 115,000, you usually have around 10 insulators,

10 11. And then 230,000, and so it goes.

11 Q. So you said "an eye," and you were holding your

12 fingers up with your thumb and your forefinger, pointing

13 finger, making an O; correct?

14 A. Yeah, kind of looks like a little hook.

15 Q. Okay. First, let's talk about the eye you

16 talked about.

17 A. Yes.

18 Q. There's an eye?

19 A. Right.

20 Q. So we've also heard that referred to as a

21 "hanger hole"; is that correct?

22 A. Yes.

23 Q. Or hanging plate?

24 A. Hanging plate, hanger hole.

25 Q. It's a hole for the hook to go into?

26 A. Correct.

1 Q. And then with your other hand you're making a
2 hook with your, with your pointing finger, index finger;
3 correct?

4 A. Correct.

5 Q. Why not just pull the hook and take down the
6 whole string?

7 A. Well, you have to -- the hook can't come out of
8 that hole while it's attached to the string of
9 insulators. When they fit together, that whole thing is
10 kind of a package where it can't come out, can't fall
11 down. Everything stays in place no matter the vibration.
12 The whole thing stays in place.

13 Q. So you were teaching this to young linemen?

14 A. Yes.

15 Q. Now, you said earlier that when you started as
16 a lineman, that distribution and transmission were
17 together, and as a lineman, you were taking care of both
18 distribution and transmission?

19 A. Correct.

20 Q. And that there was no inspection program that
21 you knew of for transmission lines?

22 A. Correct. None that I was familiar with.

23 Q. At some point in your career, did that change?

24 A. Yes.

25 Q. When?

26 A. It was -- I want to say it was about 1988,

1 somewhere in there. They decided to reorganize the
2 company to align the electric transmission lines with the
3 substations and with the operations, because they were
4 looking at that point -- I don't know how much people are
5 familiar with Cal ISO, but the state runs the
6 transmission systems, for most people's way of thinking.
7 They determine which lines are on and which lines are
8 off. And so we were looking for a method to improve the
9 efficiency of the line and looking for a method to
10 improve the reliability of the system. Because before
11 that we had situations where the substation would shut
12 the line down because they had to do work there on a
13 piece of equipment. Just about the time they turned it
14 back on, along would come the electric lines crews, and
15 they'd want to shut it down to do their work. And we all
16 thought that was a little crazy, we've got the line shut
17 down, everybody should do the work at the same time. So
18 they, they aligned, put the same groups under the same
19 supervision, the substation groups and the line groups.

20 Q. So which way do you go, transmission or
21 distribution?

22 A. I went transmission. When they reorganized,
23 they opened these jobs in the various areas, and I
24 applied for the job in the East Bay area and was awarded
25 the job, and I took over then.

26 Q. Do you remember what your official title was

1 back then?

2 A. Transmission Supervisor. Electric Transmission
3 Supervisor.

4 Q. And when this new Transmission Department was
5 created, do you recall how many transmission supervisors
6 there were in the PG&E system?

7 A. I believe there was seven. There was one in
8 San Francisco; there was one down along the coast south;
9 one along the coast north; then there was inland north,
10 south -- and I'm missing one. I think we had actually
11 three of them in the valley region at the time. Anyway,
12 we ended up with seven of them.

13 Q. South, central, and north?

14 A. Yeah.

15 Q. So would it be fair to say that the new
16 transmission side, PG&E divided their service territory
17 up into districts?

18 A. Correct.

19 Q. And for transmission purposes, that was seven
20 districts; correct?

21 A. Correct.

22 Q. And then named seven supervisors to run the
23 Transmission Departments in each of those districts?

24 A. Yes, they did.

25 Q. And you were one of those first ones?

26 A. Yes, I was.

1 Q. At that time, did PG&E also create a new
2 transmission position apart from lineman?

3 A. Yes. We called them transmission troublemen.
4 There's a lot of debate about the name, but ended up
5 transmission troubleman. The person who kind of was
6 managing the whole system, he wanted to bring on people
7 that were, strictly worked on transmission that would
8 take ownership in the system and make sure that, that we
9 had a system that was reliable and safe to operate.

10 Q. So you were involved in the creation of the
11 troublemen within PG&E; correct?

12 A. Yes.

13 Q. And what was the motivation for the creation of
14 that position?

15 A. You want somebody who knows what they're
16 looking at. When I -- sometimes they would -- before I
17 got into this, like they would send me to inspect a
18 tower. I really -- you know, I knew basic looking for
19 the insulators and the issues that impacted the actual
20 electric operation, but other than that, I really a lot
21 of times didn't understand what I should be looking for.
22 So the intent here was to have people that knew exactly
23 what to look for, how to establish priorities on repairs,
24 and would, would keep it operating.

25 Q. You also said something about ownership over
26 the lines?

1 A. Yeah. They, they wanted people to feel like
2 these are your tower lines. Like in my area, in my area
3 I had three troublemen, and we tried to assign them the
4 same lines. So they're like, "You need to take care of
5 your lines. These are your lines, this is --" and we'd
6 help each other as needed. But they wanted people to
7 feel like they really, that was their section and they
8 should take care of it.

9 Q. Did that system also create a system of
10 accountability?

11 A. I'm not exactly sure what you're asking.

12 Q. Well, you said you wanted to create a system of
13 ownership where you had one person who is doing
14 inspections over a single line and taking care of that
15 line. Is the flip side of that then you have actual
16 accountability that that line is being taken care of?

17 A. Yeah. I mean, every year we were looking, you
18 would see how many outages you had on the lines that you
19 were responsible for. I would -- you know, I was the
20 transmission superintendent, so I'm like ultimately
21 accountable for all the lines in Alameda and Contra Costa
22 counties. And then I had these three guys who were
23 really my eyes in the field, kept me apprised of any
24 emergency issues or routine maintenance, things that
25 needed to be done. And they reported those to me, and
26 then we set the priorities and did the maintenance and

1 repairs.

2 Q. So you said that prior to the creation of this
3 unit, of this new seven-district division of transmission
4 troublemen, you weren't aware of any policy or procedures
5 of inspection of transmission lines. Did that change
6 with the reorganization and the creation of this
7 department?

8 A. Yeah. I mean, we -- I think most of the other
9 people that went into these jobs, like I did, came in
10 kind of the same way. They'd, they came up through the
11 lineman job, had worked at some point on towers, did
12 something with them, whether it was just maintenance or
13 construction, depending on what group they came up
14 through. But we decided we wanted to come up with an
15 inspection template, because if you've never worked on a
16 tower, what are you looking for? How do you know when
17 something's getting bad? How do you know when, you know,
18 it becomes an emergency kind of thing?

19 So we tried to do -- when we first started out,
20 we started looking for any problems that were apparent to
21 any of the troublemen as they started doing their
22 patrols. And maybe the troublemen in Bakersfield would
23 see a particular problem. And we would get together like
24 once a month and share those. We'd have pictures and
25 stuff where we'd kind of share, "Here's the kind of
26 problems we're seeing, are you guys having that problem?"

1 So we were kind of trying to establish kind of
2 what to look for. What's okay? What needs work soon?
3 And, you know, kind of a priority system for everything
4 you found in the towers.

5 Q. Let me stop you right there. You said a lot.
6 Let's back up and kind of piecemeal it here.

7 So when you started, there was no, for lack of
8 a better term, "checklist" on how to inspect a tower?

9 A. Correct. Not that I ever saw or was aware of.

10 Q. Right. At that point, you had been working on
11 towers for what, 14, 15 years?

12 A. Yes.

13 Q. As an apprentice lineman and a lineman?

14 A. Yes.

15 Q. So one of the things that this newly created
16 Transmission Department set out to do was to establish a
17 checklist for inspecting towers; correct?

18 A. Correct. Yes.

19 Q. Out. Now, you said something about you would
20 meet once a month?

21 A. Yes.

22 Q. When you say "you," who are you talking about?
23 Or "we." You're term was "we."

24 A. Well, we probably had more often meetings with
25 the supervisors. And like once a month we started
26 bringing the troublemen together. And then, you know, as

1 we kind of saw what the immediate problems were, then we
2 kind of moved it to maybe once a quarter that we would
3 bring all the troublemen in.

4 Q. Let's define the term "we."

5 A. Okay. It's the seven superintendents would get
6 together for sure every month.

7 Q. When you're talking about the troublemen, who
8 are you talking about?

9 A. The people that had bid into these jobs.
10 They're union jobs. The most senior lineman who is in
11 that area gets preference on the job. So the people that
12 came into these jobs are people that wanted to be
13 transmission troublemen.

14 Q. Okay. When -- you said that when you took
15 over, when this position was created and you initially
16 took over, you were supervising three troublemen;
17 correct?

18 A. Correct.

19 Q. So when you talk about these monthly and later
20 quarterly meetings and all of the troublemen, are you
21 talking about your three troublemen or are you talking
22 something bigger?

23 A. We're talking all of them in the system would
24 come together at least quarterly to share with what are
25 things we're finding, what are the issues that are
26 highlighting, needing repairs.

1 Q. So the troublemen were from all seven
2 districts?

3 A. Correct.

4 Q. And do you recall or have a general estimate or
5 guestimate as to how many troublemen there were to start?

6 A. I would have to guess around thirty some maybe.
7 I mean, I only had three, but I have a compact area.
8 When you get out to areas like this, you're running a lot
9 of miles to patrol the lines. My area was really compact
10 and had a lot. So I only had three troublemen, but I
11 know some of these areas had more, just feels like it was
12 around 30. I really don't remember for sure.

13 Q. Nope. That's fine.

14 So these monthly and later quarterly meetings,
15 you'd have the seven supervisors and all 30 to whatever
16 troublemen from around the PG&E service area?

17 A. Correct.

18 Q. And what was the purpose of these meetings?

19 A. It was to share -- first of all, share kind of
20 high priority maintenance items that they found, various
21 troublemen found. And if others had questions about how
22 did you find that, what did you do about it, how did we
23 take care of it, we kind of shared that information.
24 Then we started accumulating that into like a binder with
25 pictures. Because as with some of these union jobs, the
26 guys would bid in and they would hate it, and they would

1 go back out and a different guy would come in. So
2 realizing we need to be able to train new people as they
3 came in, so we kind of started to create a little book
4 with pictures about what common problems and priorities
5 of those things. So we kind of started creating a
6 maintenance manual.

7 Q. So at the time that you guys started this, was
8 there a manual for --

9 A. Not --

10 Q. -- inspecting, maintaining transmission towers?

11 A. Not when we started. But we started putting it
12 together almost immediately.

13 Q. And you said that one of the things that you
14 found early on was that a lot of people would come into
15 the troublemen position and then very quickly decide they
16 didn't like it?

17 A. Yeah. It -- when you have to start climbing
18 steel towers -- part of the inspection system is every so
19 often you have to climb the tower and do an upclose,
20 personal inspection of it. People found they really
21 didn't like that, climbing towers, all that much, and
22 they would go back to some of the local areas, and other
23 people would bid into it.

24 Q. What kind of towers were they climbing?

25 A. Well, pretty much everything that's out there
26 with electric lines on it. Now, there's different

1 timelines how often different kinds of towers are
2 climbed, but at some point they're all getting climbed.

3 Q. When you -- when this new department was
4 created, were there established timelines for how often
5 that transmission towers should be climbed and inspected?

6 A. In PG&E, there didn't seem to be a consistent
7 time. We started talking with like Southern Cal Edison,
8 San Diego Gas & Electric, other partners here in the
9 state, and trying to see what their, how often they were
10 doing maintenance on lines. And we were trying to get
11 some consistency even between power companies on how
12 often would we do -- what's the priority of different
13 kinds of lines. So we were kind of working with them as
14 well as working internally to establish our own
15 timelines.

16 Q. So you guys were, basically were establishing
17 the policy as to how and when transmission line
18 inspections should be done?

19 A. Yes.

20 Q. The initial policies?

21 A. Correct.

22 Q. Now, going back to these meetings, these
23 monthly and later quarterly meetings, you said that you
24 as a group started putting together a binder with
25 examples, photographs?

26 A. Yes. Yes.

1 Q. And that was for what purpose?

2 A. That was to train particularly the new people
3 coming in. Initially, we are bringing these pictures to
4 the meeting and sharing with the guys who we already had
5 there, but then it was also starting to create a manual
6 that you could train a new person when they would come on
7 board. I mean, you would put them with one of the
8 established troublemen, but at the same time you wanted
9 to give them a visual look at here's the kind of things
10 you should look at if you're looking at this style of
11 tower. We have some transmissions on wood poles, so they
12 would inspect wood poles. So we had a variety of
13 structures, and each one's a little different on what
14 you're looking for.

15 Q. So basically you were establishing a training
16 program for future troublemen?

17 A. Correct.

18 Q. How long were you a transmission supervisor?

19 A. Well, I -- from a technical standpoint, I was
20 the supervisor for a couple of years and then the
21 decision was made to put on some crews that would just do
22 transmission maintenance. And at that point, all these
23 departments expanded, I was promoted to superintendent,
24 and another person was brought in to be the supervisor of
25 those crews.

26 Q. What does a superintendent do?

1 A. The superintendent was responsible for -- the
2 troublemen still reported to me doing the inspections,
3 and then I was responsible to collect and maintain all
4 those records. I was responsible to get the funding to
5 do all the repair work. Because some things are
6 immediate kind of repairs, but there's a lot of other
7 stuff that you're going to fix in a year, two years, five
8 years, and you had to build a case for that funding to do
9 the repair work on those lines. So I spent a lot of time
10 on budgets, too.

11 Q. The fun stuff; right?

12 A. It's part of the deal.

13 Q. At some point did you move out of the
14 transmission --

15 A. Yeah.

16 Q. -- area?

17 A. Yeah, I -- they reorganized again. They kept
18 the transmission group, but then they redid all the local
19 headquarter groups. And I had an opportunity to get a
20 job closer to home, paid more money, I took it.

21 Q. Still within PG&E, though?

22 A. Still within PG&E, but going back into the
23 divisions. I had started working out of Concord, at that
24 Concord, Walnut Creek, Antioch area.

25 Q. And when did you retire from PG&E?

26 A. January 1st, 2010. Nine years ago.

1 Q. Now, I want to go back to when you started with
2 this Transmission Department and created the troublemen
3 position. Prior to that, you said there was no, that you
4 knew of, inspection program for the transmission lines;
5 correct?

6 A. Correct.

7 Q. And you guys created this inspection program?

8 A. Correct.

9 Q. You assembled photographs, you guys would meet
10 and talk about problems and communicate as to what people
11 were seeing and things to look out for; correct?

12 A. Yes.

13 Q. You started to assemble a training manual for
14 those materials?

15 A. Correct.

16 Q. Did you start to assemble or put together some
17 type of systematic approach to doing the transmission
18 line inspections?

19 A. Well, we, we -- we're setting up timelines of
20 how often to do which lines. And some of that's driven
21 by is it generation, is it coming from the dams, and
22 carrying power into the city? Or is it a small line that
23 goes into, you know, a small town out here in the valley
24 somewhere? It depended on the line, depended on how
25 often, how close of inspection, things like that.

26 Q. I'm talking about the mechanics of the actual

1 single-tower inspection.

2 A. Oh, okay.

3 Q. Did you work to find a systematic approach to
4 actually inspecting a tower and looking for these issues?

5 A. We had a checklist that we -- at the same time
6 we're trying to develop computer programs to track this.
7 When I first started in transmission, we didn't have
8 computers. Been a while. So once we got a computer, we
9 started looking for a way of tracking that maintenance so
10 we could set up in a systematic way in a priority system
11 that would make it where we could do the majority of the
12 maintenance at one time.

13 Just like we were talking about with the tower
14 lines working with a substation, we wanted to, if you had
15 crews come in and do this work, just do the whole line.
16 Don't come in and do one, and three weeks later you have
17 to bring another crew in, do another piece.

18 So it was coming up with a computer system with
19 a checklist for when they climbed the tower to mark off
20 what they found. And then that was given to a clerk to
21 type into the computer system in the office.

22 Q. So when you're talking about checklist to check
23 off as they're in the tower, are you talking about
24 specific components of the tower?

25 A. Yes. You're looking at -- might give you a few
26 examples. When you walk up to the tower, the first thing

1 you're looking for is the bolts at the bottom. Are they
2 rusty? Is the steel in good shape? And you just work
3 your way up the tower. You're looking for bent steel in
4 the tower, which is an indication that maybe you got
5 ground movement. You know, here in California we get a
6 fair amount of slides and stuff. So you're looking for
7 twisting in the tower. And you're looking at insulators,
8 are they in good shape? You're looking at these hooks
9 that you mentioned and the plates, are they in good
10 shape? Is the wire itself in good shape? Just kind of
11 work your way usually up the tower until you saw all of
12 the components.

13 Q. You talked about when the inspectors or
14 troublemen are actually doing the inspection having
15 something to check off that ultimately then would go back
16 to a clerk or somebody else to input into the computer.
17 What is that something that they're checking off from?

18 A. Well, I mean, the list was developed by things
19 we found maintenance-wise. The list was developed by
20 talking to -- we have a group just called Tower
21 Department that all they do is work on towers. Because
22 for a lineman, you're never going to know all about steel
23 and strengths all of that. So you work with these
24 different departments to come up with what to look for
25 specifically when you, when you went out there. So it
26 was really getting input from a lot of different people

1 and then going out and testing it out and see if it
2 actually brought us what we thought we needed.

3 Q. So are you talking about establishing a
4 checklist for inspections?

5 A. Yes.

6 Q. And were those checklists distributed to the
7 troublemen?

8 A. Yes. They would use it. They would write the
9 tower number. Every tower has got a number on it. All
10 of them have a line name that's associated. So you can
11 go find -- if somebody says, I'm on this particular tower
12 on this particular line, you can go find that. You know
13 where it's at. And you're not just, well, here I've got
14 this piece of paper saying it needs some work, where is
15 it? So you put that on there, then you'd mark off what
16 issues you found or if everything was okay.

17 Q. Okay. So were there different types of
18 inspections that were being done?

19 A. Well, it's different for like our 500,000 volt
20 lines than it is for 150,000 volt lines.

21 Q. Okay.

22 A. And then the wood pole lines, they're
23 different, too.

24 Q. Okay. What different types of inspections are
25 generally done on transmission lines?

26 A. Well, we do flying patrols. So on -- and

1 pardon me on the numbers -- but on like the 500,000 volt
2 line, on the early stages we were patrolling that every
3 month. Get in a helicopter, you'd fly down the line and
4 look at that tower for any problems. That's our main
5 tie, northern California and southern California. So
6 that would get a certain interval. If you had something
7 coming out of the geysers, something coming out of the
8 dam up here, that had a different interval. But you
9 would fly it -- every line got at least two flying
10 patrols every year. Some got more, some got less. But
11 they all had at least two patrols on them every year by
12 helicopter.

13 Then you also had what they call "ground
14 patrols" where the guys climb the towers. That, again,
15 was on different timelines, depending on voltages and
16 things like that.

17 Q. Was there a third kind of inspection at that
18 time, a ground patrol that they didn't climb the towers?

19 A. Yes. Well, they, they would just -- and that
20 was usually annual. That was once a year. Every tower
21 somebody would drive out, look at the tower, make sure it
22 wasn't in a slide area, things like that. But they
23 didn't climb the tower, they just drove up to it, checked
24 it. Some case you have to take boats to them. You know,
25 they're out on lakes and stuff. But it's -- you really
26 are getting to every tower every year by foot once and

1 typically by air at least twice.

2 Q. So when you were doing this in the late '80s,
3 when this division was created, every tower was being
4 inspected at least three times year; correct?

5 A. Correct.

6 Q. And depending on the voltage, whether it was a
7 65 kV up or 500,000, determined how often somebody was
8 actually going to get up and climb around in that tower?

9 A. Correct.

10 Q. But every tower was going to be climbed every,
11 at least every so often?

12 A. Correct.

13 Q. Now, these inspection checklists that you came
14 up with for your inspectors, for your troublemen, were
15 the troublemen expected to use those checklists --

16 A. Yeah.

17 Q. -- for whatever type of inspection?

18 A. Yes. They were required to turn one in on
19 every -- when they were driving, they turned one in, or
20 climbing, they turned one in on every tower that they
21 looked at. When they would fly, they would just keep a
22 running log usually as they're flying, looking at these.
23 And then in the end they'd sit down and document the ones
24 they found the problem with.

25 Q. When the troublemen were flying the lines, as
26 you referred to it earlier, the aerial patrols, were the

1 troublemen given a list of components of the towers to be
2 looking at?

3 A. I have to be honest, I don't exactly remember
4 how we did that. I know we talked about it before
5 patrols and, you know, went on them, but I think mostly
6 on our, our flying patrols we were mostly looking for
7 damaged wire, broken insulators, and then any sort of
8 distortion in the tower would probably be the main things
9 we were looking for.

10 Q. All right. If I can approach, I forgot to get
11 an Exhibit out of --

12 All right. We're going to skip and come back.

13

14 (Grand Jury's Exhibit 179 was marked for identification.)

15

16 Q. (By MR. NOEL) You have in front of you a
17 photograph?

18 A. Okay.

19 Q. I'm going to ask you if you recognize that
20 photograph.

21 A. I mean, I recognize what it is.

22 Q. Okay. What is that item?

23 A. Commonly called a J hook, it's what attaches
24 the insulators to the tower.

25 Q. Okay. Have you ever heard that referred to as
26 a C hook?

1 A. Yes.

2 Q. Or a suspension hook?

3 A. Yes. They always develop new names.

4 Q. Now I want to go back to what we were talking
5 about a little bit earlier, and you were talking about
6 all the training and everything initially when you were
7 an apprentice, then a lineman, in taking insulator
8 strings off of energized towers or energized lines;
9 correct?

10 A. Correct.

11 Q. Using this photo, which is marked as People's
12 -- or Exhibit 179, can you explain to us the mechanics of
13 how this hook works?

14 A. Well, you have a steel plate on the side of the
15 tower. It's got a hole in, maybe -- that's bigger than
16 three quarters -- maybe an inch in diameter. Then this
17 hook hooks into that plate and then the insulator -- can
18 I walk up there?

19 Q. Sure absolutely. Let's make this easier.
20 Let's skip up to No. 180, and ask you if you recognize
21 180.

22

23 (Grand Jury's Exhibit 180 was marked for identification.)

24

25 A. Okay. So this is the tower piece. And this
26 would be the plate that's on the end of the tower.

1 Normally this hole when it's new looks like this.

2 Q. Okay. Remember, we have to, we have to
3 describe for the court reporter --

4 A. Okay.

5 Q. -- so she can take it down. So you're pointing
6 at a hole in this piece of metal that at this point looks
7 like a key hole?

8 A. Correct.

9 Q. You were using your finger to trace around
10 basically a circle?

11 A. Right. Normally when plate's brand new, this
12 hole is, there's a hole drilled in the plate, and then
13 that is big enough to accept the hook that you have the
14 picture of.

15 Q. And this is the hook right here?

16 A. Right. So this hook, the finger of this hook
17 goes in that plate. And then this is kind of an oval
18 piece of steel. And the insulator is designed to come in
19 and just slip over the top of that and sit on that hook.
20 So when you --

21

22 (Grand Jury's Exhibit 181 was marked for identification.)

23

24 Q. Let me skip forward to 181. Do you see that
25 photograph?

26 A. So up on the top, the C hook, J hook, whatever,

1 is the piece in the steel, and then the base of it is
2 widened out. And these insulators have a groove in them.
3 And the groove just slips in over the top of that and it
4 sits down; kind of a little bevel inside of it, so it
5 sits down on it.

6 Then the cotter key is up here; when you push
7 that back in, and now it can't come apart. This can't
8 come out of the tower. And the hook cannot come out of
9 the insulator. And every insulator is interconnected
10 with this cotter key and that round ball. That's how
11 these are connected all the way down. That's what keeps
12 them together. You have earthquakes, you have strong
13 winds; these stay together no matter what those are like.

14 Q. Can you explain to us briefly the process of
15 installing one of these hooks and insulator strings and
16 the --

17 A. When they're new or when we're doing them
18 energized?

19 Q. Brand new. Let's assume we're putting up a
20 grand new string.

21 A. So if you're putting up a brand new string, you
22 have a lineman goes up the tower, gets out here, we hang
23 a ladder off of this steel. He stands on the ladder.
24 And you have a rope down to a truck, and it pulls his
25 weight up.

26 He's got this thing called the J hook or C

1 hook, a lot of times they have them in their pouch. They
2 usually have a belt with a pouch on; a lot of -- several
3 of them in there.

4 They bring these insulators up, he clips it
5 together, and they release the weight, it drops in here.

6 Then you bring in the wire in, and you're
7 clipping it together. Again, a cotter key holds the
8 whole thing together. They're all beveled, all have the
9 cotter key that makes that connection that holds them
10 into place.

11 Q. So the first thing you would do would be to put
12 this suspension hook, J hook, C hook, into the hole?

13 A. Into the hold and bring the insulators up to
14 it.

15 Q. Then once you lock that in place and cotter pin
16 it in place, now it's locked in the hole?

17 A. It's one unit, yes.

18 Q. How would you remove an insulator string like
19 this?

20 A. Well, when I was talking about doing it with
21 hot sticks, what you do, you turn it to where you can get
22 to this cotter key, take a thing and you push it back.
23 These cotter keys can't fall out. They have a little
24 bend on the end of them. They're spring-loaded. You
25 push it back, you pick up that weight, drop it off, bring
26 the new one up.

1 If you're up here and it's de-energized, you
2 just end up taking a screwdriver and punching that cotter
3 key out. You hold this hook, pick it up, lift it off,
4 drop it down, bring the new one up, clip it back in.

5 Q. So when you replaced insulator strings, did you
6 also replace the hook?

7 A. Most cases, but sometimes -- you may have only,
8 you may have put those insulators up last year, somebody
9 shot a bunch of them out. And so purely out of this
10 you're replacing it, they're probably not going to change
11 the hook at that point. But if you see any wear on it,
12 we always changed the hook.

13 Q. Who makes the decision as to whether or not to
14 change of out hook?

15 A. It would be the lineman who is there up on the
16 tower.

17 Q. So when you were training troublemen when you
18 started the Transmission Department, did you train them
19 to inspect the connection between the insulators and the
20 arms?

21 A. Yes. That's a key component of it.

22 Q. When you were doing the checklists for
23 inspection, were the hooks and holes included in the
24 things to be inspected?

25 A. Yes.

26 Q. All right. Now I want to back up again to

1 number 179.

2 Sometime in 1987, did you have your troublemen
3 embark on an inspection of hooks and holes on the
4 transmission lines in your district?

5 A. Yes.

6 Q. Why did you do so?

7 A. Well, it was -- you know, after talking to
8 people that knew about transmission more than myself,
9 that that's the place that it's going to wear, that
10 you're going to -- over the years it's going to start to
11 wear down. So it's a place that you have to keep, you
12 know, looking at when you go there.

13 If they have areas that have a lot of wind, you
14 get a lot of vibration, you're going to get wear. If you
15 have them, we noticed over time, when the tower is
16 sitting like right on the edge of a hill, you got a lot
17 of updraft. Like you've probably all seen eagles and
18 these birds just kind of floating. Well, that wind
19 really buffets towers, and it causes a lot of vibration.
20 And it will cause wear on these hooks and on the plates
21 they're in.

22 Q. So in 1987 you sent your troublemen out to find
23 worn hooks?

24 A. Yes. To look for them.

25 Q. And worn hanger plates?

26 A. Yes.

1 Q. And you're looking at 179, Exhibit No. 179
2 there in front of you; correct?

3 A. Correct.

4 Q. Is this a photograph of 1987 of one of the
5 hooks that you found?

6 A. I don't know that for sure.

7 Q. Okay. Do you remember what you did with the
8 hooks that you found?

9 A. I had them -- we have a lab. I'm not sure it's
10 even there functional anymore, but we had a laboratory
11 out in the San Ramone area where we did a lot of high
12 voltage testing, but they also had metallurgists and
13 chemists there, and they had the ability to test these to
14 see what it would take to break them.

15 So for me, if I see one like this, I don't know
16 how much that strength is there. Is that half the
17 original? A third? Three quarters? So I sent them in
18 to be tested to see what it would take to break them to
19 give us really an idea on is this a high priority? Is
20 this something we can do within a year? Five years?
21 What does that look like? So it was just trying to get a
22 better understanding of the steel that was there and how
23 long it would last.

24 Q. Did you also submit to the lab for testing the
25 hanger plates to which the hooks were attached?

26 A. I believe so. I'm not 100 percent sure, but I

1 believe so.

2 Q. And now you have up in front of you Exhibit
3 180. Do you remember if this is a photograph of one of
4 the hanger plates that you submitted to the lab in 1987?

5 A. I don't remember.

6 Q. Okay.

7 A. But it very well could have been. I know I
8 submitted stuff to them, I don't know whether this is one
9 or something very similar.

10 Q. So you know that, that in 1987 your crews and
11 you found hooks, J hooks, C hooks, suspension hooks,
12 whatever, with wear patterns in them that you submitted
13 to the lab?

14 A. Correct.

15 Q. And you know that you found hanger plates with
16 wear patterns that you submitted to the lab?

17 A. Correct.

18 Q. And those wear patterns on the hanger plates
19 were consistent with the, for lack of a better term, of
20 keyholing of this hole?

21 A. Correct.

22 Q. And this is the term -- this is the photograph,
23 180, that you were referring to earlier that you said
24 this hole should be a circle?

25 A. Correct.

26 Q. And going back to 179, what is it that you're

1 describing as the wear pattern on that hook?

2 A. Well, it's where this hook was in that hanger.
3 So you're trying to -- I was trying to find out so which
4 one is going to fail first, and how long do you have?
5 How much strength is that, what will -- where we get?

6 Q. So when you talk about the wear pattern where
7 the hook is in contact, are you talking about this
8 channel right here?

9 A. Correct.

10 Q. So this channel is where the hook is in contact
11 with the hole?

12 A. The plate, yes.

13 Q. So going back to this, this photograph number
14 181, we're talking about the area right here, the contact
15 point between the hanger arm and the, and the hook?

16 A. Correct.

17 Q. And you're finding that the, both the hooks
18 were wearing and essentially that the hanger arm was
19 cutting a channel into the hooks?

20 A. Well, they were cutting a channel into each
21 other, because both of them were wearing down, appeared
22 close to the same rate. Looked like maybe the channel
23 was wearing a little faster.

24 Q. And so you sent these items into the PG&E lab
25 for testing and evaluation?

26 A. Correct.

1 Q. Do you recall ever receiving a report from the
2 PG&E lab?

3 A. I, I don't recall receiving it, but I saw a
4 copy of it. I have to believe that I got it, and it --
5 you know, I just -- it's 32 years ago.

6 Q. Exactly.

7 A. I really don't --

8 Q. Exactly.

9 A. -- I don't remember.

10 Q. You don't have a recollection of receiving the
11 report?

12 A. No, I don't.

13 Q. But I showed you a copy of the report
14 yesterday; correct?

15 A. Yes. And I saw my name on it. I have no
16 reason to believe it isn't a true report, but I do not
17 remember.

18 Q. Do you remember what you did in response to
19 that report?

20 A. Well, I know that we would have gone out and
21 changed all of them on that tower to begin with.

22 Q. All of them being the hooks and plates?

23 A. All of the hooks and the plates. That would
24 just be a normal repair for that tower. But then we also
25 used that as a teaching tool for other people who are
26 patrolmen as to, "Here's what we found in our area, this

1 is something you need to be looking for when you do your
2 patrols." They did similar things, brought them to our
3 meetings with insulators or other anchors --

4 Q. Right.

5 A. -- whatever.

6 Q. We talked at length earlier about these
7 monthly, initially monthly then later quarterly meetings
8 of all the seven supervisors and all of the troublemen
9 from across the PG&E service area, and that you would
10 present photographs?

11 A. Yes.

12 Q. Do you recall if you presented a photograph
13 similar to this, 179?

14 A. I do not recall, but I really believe I would
15 have, definitely would have done that --

16 Q. And the same --

17 A. -- seeing that I had that report with my name
18 on it. You know, I'm 99 percent sure, but do I exactly
19 remember that? No, I do not.

20 Q. And same question as to 180. Do you think --

21 A. Yes.

22 Q. -- you would have shared this?

23 A. Absolutely.

24 Q. Okay. And basically for what purpose were you
25 sharing it?

26 A. Well, we want to make sure that all the

1 troublemen in the system knew this is a problem. Because
2 I didn't know this was a problem before I took over this
3 job and started doing this, and so I kind of feel other
4 people were in the same position as me. And so it was
5 like share any issues that you had so we can all learn
6 from them.

7 Q. So this is in 1987 when the transmission
8 troublemen program is in its infancy; correct?

9 A. Correct.

10 Q. This is during the time where you're creating
11 the training manual?

12 A. Correct.

13 Q. You're creating the inspection manuals?

14 A. Yes.

15 Q. You're creating the inspection checklists?

16 A. Correct.

17 Q. Was the wear on suspension hooks as shown in
18 Exhibit 179 and the wear on the hanger holes shown in
19 180, were those identified and added to the list of
20 things that the inspectors should be looking at during
21 their inspections?

22 A. Yes.

23 Q. And that was made specific; correct?

24 A. Yes.

25 Q. When you talked about this checklist that you
26 had that you gave out to the inspectors that they were to

1 run through in every tower --

2 A. Yes.

3 Q. -- did that include looking at the, at the
4 hooks and holes?

5 A. I'm sure it would.

6 MR. NOEL: Madam Foreperson, it's about 9
7 minutes to 10:00. This would probably be a good natural
8 place to take a break. We've been going for an hour and
9 20 minutes.

10 GRAND JURY FOREPERSON: Okay. Can we take a
11 break then, please?

12 MR. NOEL: Absolutely.

13 GRAND JURY FOREPERSON: Everybody ready?

14 (Break taken.)

15 GRAND JURY FOREPERSON: All members of the
16 Grand Jury are present. We can proceed.

17 Q. (By MR. NOEL) All right. (WITNESS #17), we
18 were talking earlier, when you started the Transmission
19 Department troublemen program, there was no manual that
20 you knew of for inspecting and maintaining transmission
21 towers; correct?

22 A. Correct.

23 Q. To your knowledge, has there subsequently been
24 a manual created?

25 A. I know there was one created. I don't know in
26 what format or, you know, how it is now. It's been a lot

1 of years since I was in there.

2

3 (Grand Jury's Exhibit 151 was marked for identification.)

4

5 Q. Okay. You have in front of you that big binder
6 in front of you?

7 A. Okay.

8 Q. What's marked as Exhibit No. 151. Without
9 losing our page, you can flip to the front page, you see
10 the exhibit tag.

11 A. Yes.

12 Q. Okay. That's Exhibit 151.

13 A. Okay.

14 Q. That's what's being displayed up here on the
15 big board?

16 A. All right.

17 Q. Are you familiar with this document?

18 A. No.

19 Q. Okay. This document was not around when you
20 were in the Transmission Department?

21 A. That's correct.

22 Q. And for, just for the purposes of this, this
23 document is labeled the *Electric Transmission Preventive*
24 *Maintenance Manual*. And Exhibit 151 was published in
25 April 2009; is that correct?

26 A. Yes.

1 Q. All right. But you talked about doing
2 checklists and creating basically the codes for the
3 computer system in its infancy?

4 A. Right.

5 Q. And up on the board here I have Page 2.3, Table
6 2.1.2, Component Types and Descriptions. Do you see
7 that?

8 A. Yes.

9 Q. Do you recognize the table?

10 A. No.

11 Q. When you talked about establishing codes and
12 starting to set up the computer system for the
13 transmission inspection program, describe for us what you
14 did.

15 A. Well, I mean, we first started off with a blank
16 sheet of paper, right, and started looking -- sat down
17 with the tower department on what are things we should be
18 looking for on towers? Sat down with the electric
19 maintenance people, what kind of things -- so you started
20 developing categories that you wanted to focus on.

21 And in this checklist that they have here --
22 ours looked, you know, half this size and not anywhere
23 near as complex. But, again, we didn't have computer
24 systems, so we didn't -- we didn't have computer systems,
25 so we really couldn't capture all this stuff. In today's
26 world, this works great.

1 I had worked with a person to use the, what is
2 called "PC file." It was a very early computer database
3 that you could sort and do this stuff with. And I had
4 them just take a piece of -- well, we developed, you
5 know, tower, key things to look for on towers,
6 insulators, key things to look for, and then we gave
7 those codes, they would take those out in the field and
8 start using those. And then the troublemen would
9 suggest, hey, I need something for, you know, maybe we
10 got a jumper wire here. To them that means something.
11 Probably doesn't mean to most of you. They kind of gave
12 us input into here's key things that we think you should
13 be looking for.

14 So we really started developing these
15 checklists, and it became more comprehensive all the
16 time. But when we started, we had nothing. In the first
17 year, you know, is one page. Five years later it's 20
18 pages.

19 Q. Okay. For the record, you're looking at
20 Exhibit 151, the 2009 *Electric Transmission Maintenance*
21 *Prevention Manual*.

22 Looking at, looks like ETPM 002, there doesn't
23 seem to be a page number, but Bates stamp number PG&E
24 Camp, BC, 0000030701; is that correct?

25 A. Yes.

26 Q. Okay. So you're looking at a checklist from

1 the 2009 manual?

2 A. Yes.

3 Q. And I also showed you this list up here of
4 different components. Now, I understand you haven't used
5 the manual, but does the list of components look familiar
6 to you?

7 A. Yes. Those are areas that we started focusing
8 in on when we developed, started developing the manual.

9 Q. Exactly. So you started identifying the
10 different components to the transmission towers and
11 assigning codes to them; correct?

12 A. Correct.

13 Q. And at that time, at the same time as you were
14 building this transmission, this troubleshooters system and
15 the inspection system and the training system, you were
16 also starting to establish a computer system?

17 A. Correct.

18 Q. And so you needed codes for the computers?

19 A. Correct.

20 Q. So you began coming up with these codes?

21 A. Correct.

22 Q. Do you know where among these codes the hooks
23 and holes that we've been discussing this morning would
24 be?

25 A. No. I mean I can look at it and guess, but I'd
26 be guessing.

1 Q. Where would you guess?

2 A. Can I come over there?

3 Q. Absolutely.

4 A. Let's see, so you've got hard wire DE. That
5 means hardware dead end. So when the wire comes in and
6 stops, you have these hooks, and the wire comes in, it's
7 called dead end.

8 And they have hardware suspension. So the
9 pictures that you have with the insulators hanging down,
10 those are suspension insulators. So it's just dictating
11 what exactly configuration does that tower have in its
12 design.

13 Q. So it would be your guess, based upon all of
14 your experience and starting this, that either IHO-1 or
15 IHO-2 would apply to the hooks and holes?

16 A. Correct.

17 Q. So going forward to the hook in 179, if someone
18 were to spot that in a tower and were reporting that,
19 that would be an IHO-9?

20 A. Yes.

21 Q. Great.

22 Go back to a couple more from the 2009, Exhibit
23 151, *Electric Transmission Prevention Manual*.

24 A. Okay.

25 Q. Tables 2.1.3 and 2.1.4, do you recognize the
26 content, not necessarily the --

1 A. Yes.

2 Q. -- table itself?

3 A. Yes.

4 Q. Tell us what you recognize.

5 A. Well, this will -- like on that particular

6 hook, right, it's rusty, so that would apply. It's worn,

7 so that's going to apply. You're going to put all this

8 stuff that shows up as part of the problem. You know, so

9 you would have the code which says it's a suspension

10 insulator problem, and then you would have -- this is the

11 more detailed piece of what is it, so what about it? Is

12 it rotted? Is it worn? Is it broken? What's the

13 status?

14 Q. Okay. And what --

15 A. Kind of a subcode of the first one.

16 Q. What would you consider the hook in Exhibit

17 179?

18 A. Can we go back?

19 So it's corroded and it's worn.

20 Q. Okay. So if you were the troubleman out there

21 doing an inspection on this line and you spotted that

22 hook, you would record that as an IHO-2 and its condition

23 as being CHO-8 and CHO-3?

24 A. Correct.

25 Q. Cool.

26 A. And I don't know, on that same one down at the

1 bottom, it gives you the required action?

2 Q. Right.

3 A. So this is kind of given to you where they need
4 to go from there.

5 Q. Thank you.

6 Now we're back to the photograph in front of
7 you marked as People's 181. We've already kind of talked
8 about this a little bit in general, but do you recognize
9 what type of tower this is?

10 A. It's called a transposition tower.

11 Q. Are you familiar with those types of towers?

12 A. Yes.

13 Q. Did you work on those types of towers?

14 A. Yes. Not specifically this designed one, but
15 on transpositions towers. There's a multitude of designs
16 out there.

17 Q. Did you ever work on the Caribou-Palermo line?

18 A. No, I did not.

19 Q. Are you familiar with it?

20 A. Just I saw it in the thing. I haven't done
21 anything with the line. I haven't worked on it or
22 patrolled it or anything.

23 Q. Do you have any knowledge as to the history of
24 the line?

25 A. Well, I know it, it comes out at one of our
26 very first power plants that they had up here and carried

1 power into the Bay Area.

2 Q. Do you know where it originally went?

3 A. No.

4

5 (Grand Jury's Exhibit 182 was marked for identification.)

6

7 Q. So now we're on to 182, photograph in front of
8 you. I want to go back and talk about the hooks and the
9 holes again.

10 A. Okay.

11 Q. When you were getting your training as a
12 lineman, were you given any training as to the relative
13 size of the hooks in the holes?

14 A. No. I mean, the only thing you knew is the
15 hook barely fit in the hole and, you know, you attached
16 the insulators. I mean, that's really the only training
17 to it.

18 Q. And you knew that from replacing them; correct?

19 A. Correct.

20 Q. We talked about that earlier, that you have to
21 put the hook in first and then you attach the hook to the
22 insulator string?

23 A. Correct.

24 Q. So the hooks fit pretty tightly into those,
25 into those holes; correct?

26 A. Yes.

1 Q. Looking at Exhibit 181, what do you see with
2 those hooks and holes?

3 A. They look to be in good shape.

4 Q. And what makes you say they appear to be in
5 good shape?

6 A. Well, because the hook almost totally fills the
7 hole on --

8 Q. You're talking about right here?

9 A. Right there, yes.

10 Q. There's just a slight crescent of light above
11 the top of the hook?

12 A. Correct.

13 Q. Between that and the top of the hole?

14 A. Yes.

15 Q. So those appear to be --

16 A. Good shape.

17 Q. -- good shape hooks you wouldn't worry about?

18 A. They have rust on them, but that's not that's
19 just surface rust, so they should be fine.

20

21 (Grand Jury's Exhibit 183 was marked for identification.)

22

23 Q. Okay. Moving on to 183, do you see the
24 photograph marked as 183?

25 A. Yes.

26 Q. Do you see a problem with this hook and hole?

1 A. Yeah. This one's well worn. You can see a lot
2 of light between the top of the hook and the top of the
3 hole. So either hook's worn a lot, the tower's worn a
4 lot, or a little bit of both. As we've saw in a couple
5 other pictures, they seem to wear together.

6 Q. So back in 1987, 1988 when you were one of the
7 people foremean that what's now the troublemen and doing
8 the inspection program, what would you have done if you
9 saw this hook and hole while doing an inspection on a
10 transmission tower?

11 A. Well, I'm sure what I wanted them to do is get
12 a hold of me, the supervisor, and we'd get a crew out and
13 replace -- well, first we'd get the tower department out,
14 because we never like trained our linemen on how to fix
15 towers. If the tower itself had work on it, we had a
16 whole department. So we would have the tower department
17 go and take a look, because they needed to find the metal
18 to replace the plate on the end of the tower. And then
19 we'd schedule this for repair as soon as possible.

20 Q. Why as soon as possible?

21 A. Well, it appears that like maybe half of that
22 is gone, if I had to guess from the picture.

23 Q. Half of the hook or half of the hole?

24 A. Both.

25 Q. Both?

26 A. They both look like they're worn.

1 Q. So if you saw this out on an inspection, this
2 would immediately be tagged for work?

3 A. I'd want to get it done soon.

4

5 (Grand Jury's Exhibit 184 was marked for identification.)

6

7 Q. Moving on to 184, do you see any problems with
8 this hook and hole?

9 A. Same, same basic problem it appears.

10 Q. And explain that for us, please.

11 A. Well, the -- again, you can see a lot of light
12 through that hole, which means there's a lot of wearing
13 going on. Because when originally put the hook in, those
14 -- that's a fairly tight fit. But in this case, you've
15 got a lot of space in there. It's almost surely that the
16 tower's worn and the hook is worn.

17 Q. So back when you were training the new
18 troublemen both at the start of the program, then when
19 you were setting up to train the future troublemen, what
20 would you have told them if they saw this hook and hole?

21 A. That it was getting close to needing repair,
22 that we needed to get somebody scheduled and do it.

23

24 (Grand Jury's Exhibit 185 was marked for identification.)

25

26 Q. Next up, 185. Do you see a problem with the

1 hook and the hole reflected in Exhibit 185?

2 A. Yes. It's -- again, it's very much the same
3 type of problem, except when you look at this one, they
4 already have done a repair on the tower, putting this
5 hanger that's there. Someone's already --

6 Q. This bracket right here?

7 A. Yes. Someone has already fixed it, because if
8 you look at the end of the tower, the original arm, that
9 hole is very worn. So this apparently was the type of
10 repair the tower department felt was a good way to repair
11 it. Then I'm sure somebody replaced all the insulators.
12 Well, at least the hook on these.

13 Q. Well, when you look at -- now on this
14 photograph we've got this bracket that we haven't seen in
15 any of the previous photographs that's attached?

16 A. Correct. And I've never actually seen one
17 myself.

18 Q. Right. It looks like that, the hook and the
19 hole in the bracket are pretty well worn, too?

20 A. Yeah. Looks like this tower has got a
21 tremendous amount of vibration associated with it.

22 Q. And you said that, in the background, that hole
23 in the original tower arm, that hanger hole is also
24 pretty well worn; correct?

25 A. Yes. That looks to be almost identical, same
26 condition as when they replaced the last one.

1 Q. I want to go back to something you said
2 earlier. And when you were looking in, back in the '80s
3 these hooks and holes and the issues, and you talked
4 about positioning of towers on hills?

5 A. Yes.

6 Q. Can you go back and kind of expand on that and
7 explain it to the jury, please?

8 A. Well, we, we found is any of the, where a tower
9 sits either like right on the hilltop or just off the
10 edge of it, they get a tremendous amount of vibration.
11 The wind, as it comes up, rises. You get lift on the
12 wire, and you get the vibration in it. And so it would
13 make these more susceptible to wearing.

14 We get a similar kind of issue like up towards
15 Rio Vista where it is just windy as hell up here. You
16 get a lot of, where you get a lot of vibration, you get
17 wear, and these type of issues start to show up.

18 Q. So wind is a major factor?

19 A. Yes.

20 Q. And the topographical positioning of a tower on
21 the hills is another factor?

22 A. Definitely is.

23 Q. How about the positioning of the tower
24 regarding the prevailing winds, is that a factor?

25 A. I can't say if I know that to be a factor.

26 Q. Okay. It's not cross winds as opposed to

1 facial winds or back winds?

2 A. Well, I mean, what we see is when the wind is
3 blowing across the wire, that's when you get the most
4 vibration. So if it's up and across versus in line with
5 it. So I guess that's what you were asking.

6 Q. Okay.

7 A. You get the most vibration when it's going
8 across it and it's not steady. You get the --

9 Q. So this tower we're looking at in 185, that
10 would mean the wind would basically be, if it were coming
11 from, basically following the same path as that
12 conductor, that would be coming across the line, the
13 jumper line?

14 A. Correct.

15 Q. So that, in your experience, wouldn't be a good
16 thing for this tower?

17 A. Correct. It will show the wear faster.

18 Q. All right. Let's move on.

19 A. This particular tower, though, is this tower on
20 a hill? Or is this -- this looks like it's down in the
21 valley.

22 Q. I can't answer that for you right now. We'll
23 provide that --

24 A. Okay.

25 Q. -- later.

26 Now on to 186. Do you see any issues with the

1 hook and hole in this photograph?

2 A. Well, it's started to wear, but it's not really
3 very bad at this point. You see a little bit more light
4 than when you first put it up. But this one I would say
5 has a lot of life left in it.

6 Q. Okay. And, again, this one we're talking
7 about, this, this is -- this arm has had the bracket
8 bolted to it with the --

9 A. Correct.

10 Q. -- hanger hole?

11 A. Correct.

12 Q. And the hook is in the bracket hanger hole?

13 A. Yes.

14 Q. When you say a little bit of light, you're
15 talking about this crescent right above the top of the
16 hook where you can see through?

17 A. Correct.

18 Q. And you would, you wouldn't consider this to be
19 a concern?

20 A. Not yet, no.

21 Q. Okay. How about the original hole in the
22 background?

23 A. Well, you can see that one had problems and,
24 you know, someone, probably a patrolman, picked it up,
25 noticed the problem, and they came out and did the
26 repairs on it.

1 Q. Moving on to 187. And this is a photograph
2 showing both of the jumper arms coming out and both the,
3 both the -- sorry -- insulator strings?

4 A. Yes.

5 Q. You can see the hooks, sort of see the hooks
6 and the holes on both of these. Do you see an issue?

7 A. Well, you're seeing a fair amount of light. I
8 mean, it's a little hard to tell from this photograph for
9 me, but it might be something if I'm in a helicopter
10 patrol, I'm going to see if he can get in closer to get
11 this picture, or maybe come back. Mark this one on my
12 own note -- if I'm the patrolman, I'd make notes on this
13 and come back and climb the tower and check it.

14 Q. Okay. So you actually do patrols on these
15 types of lines from the helicopter?

16 A. Correct.

17 Q. And one of the things you're going to be
18 looking for is those connections from the helicopter;
19 correct?

20 A. Correct.

21 Q. And this would be the type of vision you would
22 see from the helicopter?

23 A. Well, in general, yes. I don't know how many
24 of you have flown in helicopters, but when you get -- one
25 of the problems with helicopter patrols is the wind. You
26 try to schedule these when the wind is down, if at all

1 possible. But it's not always possible. Some areas the
2 wind is blowing pretty much every day. So some of these
3 pilots, they're not going to get that close, you know,
4 because they don't want a gust of wind taking them into
5 the tower. And if I'm riding along, I don't want him
6 going there either.

7 So sometimes these -- this one's at a fair
8 distance, and you can see this light, but if you're not
9 comfortable getting closer, pilot's not comfortable
10 getting closer, this is something that you would write
11 down come back, drive up to check it. A lot of times you
12 can see them from the ground with binoculars. Or if you
13 have any concern, you climb the tower itself and get up
14 close, because you can get right up next to these safely
15 while you're climbing the tower.

16 Q. So you're saying, in your experience, that --
17 let's assume that this photograph, number 187, was taken
18 from a helicopter, but this would be further away than
19 you would generally expect a troubleman to be in a
20 helicopter inspection?

21 A. Yeah, they get up pretty close.

22 Q. But yet you can see daylight in those hooks and
23 holes?

24 A. Correct. You have a good background here with
25 that brown background to be able to see the light through
26 it.

1 Q. So if you saw this when you were doing --

2 A. Patrols.

3 Q. -- inspections and patrols, this would
4 definitely be marked for further investigation?

5 A. Correct.

6

7 (Grand Jury's Exhibit 188 was marked for identification.)

8

9 Q. Now let's get a little closer up. 188.

10 A. Okay.

11 Q. Do you see a problem with the hooks and holes
12 in this photograph?

13 A. Right. This one's, this one I can see for sure
14 that is an issue. It's something that we're going to
15 look to replace.

16 Q. Why is it an issue?

17 A. Again, you're seeing a lot of light between the
18 top of that hook and the top of that hole. So you know
19 it's worn down quite a distance to be able to see that
20 much light through the hole.

21

22 (Grand Jury's Exhibit 189 was marked for identification.)

23

24 Q. And next, 189.

25 A. Yeah, same. Same kind of issue.

26

1 (Grand Jury's Exhibit 190 was marked for identification.)
2
3 Q. Now I want you to look at 190 and tell me what
4 you see there.
5 A. That's a numbering system for the tower. Is
6 that what we're talking about?
7 Q. Yep. What does that mean?
8 A. It's tower 35 over 281. So it's 35 miles from
9 wherever they started this, which was probably the power
10 plant, and it's the 281st tower in that line. So that
11 always becomes a point for, like me as a supervisor or
12 someone else, to go find this. I mean, they're all
13 marked on maps. But I know just right from the get-go,
14 if I'm familiar with this area, familiar with where the
15 power plant is, okay, this thing is 35 miles away from
16 the power plant. I got a good general area to go to
17 right off. Then I can look and be specific where that
18 tower number is.
19 Q. How does that number play into your
20 inspections?
21 A. Well, it's part of the computer. It's how you
22 document what, what's checked on this tower to this
23 number and then it's put in the computer and you can
24 track it. All the maintenance that gets done on this
25 tower, if you pulled up -- I'm hoping, because I haven't
26 been running it, that system, but I know a lot about how

1 computers work -- so you should be able to go into that
2 system, pull up this line name, 35 over 281, and it
3 should tell you every patrol, what they found, and what's
4 going on with it since they started this and had a
5 computer program. Before this we had paper, so I'm sure
6 there's plenty of paper.

7 Q. Do you know what the bottom number is,
8 40591574?

9 A. I'm thinking this is the new numbering system
10 they've put in place.

11 Q. Okay. But you don't know that?

12 A. I do not know what that is.

13 Q. Okay. So if you're flying along in air patrol
14 and you see this hook and hole, you're going to mark that
15 tower using that numbering system, 35281?

16 A. Yes.

17

18 (Grand Jury's Exhibit 191 was marked for identification.)

19

20 Q. Now moving on to 191. Do you see that
21 photograph?

22 A. This one needs some work very soon.

23 Q. Describe it. How?

24 A. That's -- well, the wear. You can see there's
25 a lot of light through this one. And you can see it
26 almost looks at the bottom like this steel is starting to

1 distort on the tower, which means it's not far from
2 failure, in my estimation what I'm looking at.

3 Q. So back when you were in charge of the
4 fledgling troublemen program and you were establishing
5 these, what are you telling your people to do when they
6 see this?

7 A. I want this this afternoon or tomorrow.

8 Q. You want this thing changed this afternoon or
9 tomorrow; correct?

10 A. That's what it feels like to me. This one is
11 bad.

12 Q. This is an urgent problem?

13 A. Yes.

14

15 (Grand Jury's Exhibit 192 was marked for identification.)

16

17 Q. And now on to 192.

18 A. I should say I'm looking at a picture; right?
19 If I'm there on the tower, I might be seeing things
20 slightly different. But this picture is telling me we
21 need some help now.

22 Q. All right. Photograph marked as 192?

23 A. Yes.

24 Q. And what do you see there?

25 A. Is that the same one, just -- or maybe another
26 arm on the same tower? I don't know. Looks like the

1 same issue, looks like the same time, so -- it's a little
2 different design. It's got to be a different one.
3 Anyway, it's another one with a serious problem. But
4 that -- I don't see like the distortion on this one like
5 it looks like on the other one, but I mean they're both
6 -- need repair soon.

7
8 (Grand Jury's Exhibit 193 was marked for identification.)
9

10 Q. All right. Moving on to 193, photograph marked
11 193.

12 A. Okay.

13 Q. Do you see an issue with that hook and hole?

14 A. It is, but it's -- again, there's some steel
15 left there. So it's something you want to get, you know,
16 in your schedule down the road. But this wouldn't be an
17 emergency kind of situation for me.

18 Q. Unlike the last one where you want that
19 replaced tomorrow --

20 A. Yes.

21 Q. -- this one would be get it done soon?

22 A. Probably put in a one year, six months, or some
23 -- I'm guessing a little bit, because I haven't been in
24 the system, but usually have like, okay, we need this in
25 a year, we need this in five years, we need this in a
26 month. You kind of get a priority system going there.

1 I'm guessing they have, but I don't know that.

2 Q. When you were establishing, when you were one
3 of the people that were establishing the troublemen
4 program, the inspection program, did you set up a system,
5 priority system for necessary repairs?

6 A. Yes.

7 Q. And can you describe that for us?

8 A. Well, we started out with immediate, one week,
9 one month, one year kind of priority system. And
10 whenever you start a priority system, you are making a
11 lot of adjustments the first year or so. You know, stuff
12 that looked really urgent, after you see about five
13 hundred of them look just like it, maybe it's not quite
14 as urgent. And, I mean, it -- really, working with the
15 troublemen, I remember a lot of back and forth of this
16 looks really bad. It's like you look at this one, and
17 this one looks like it needs to be done tomorrow until
18 you see this one. And then, well, this is really a month
19 kind of thing. I mean, it changes your perspective after
20 you do it for a while.

21 Q. Do you recall what the definition was that you
22 gave the immediate?

23 A. Well, we felt like if this was something that
24 was -- like if you had like this one, 191 -- if I had
25 that one and it's an area that's getting wind and -- or
26 it got severe weather or something coming in, you want to

1 do this today, because you got 50 mile-an-hour winds
2 projected for tonight. You don't want this thing sitting
3 out there. If your projected weather is calm for the
4 next day, tomorrow is probably the day we're going to do
5 this.

6 I mean, you have to deal with the power, you
7 know, the scheduling people and shutting power plants
8 down or power lines down. So you're trying to not just
9 go out every time you see a problem, shut the town down
10 while you go fix the one problem. So you're trying to
11 work with other systems besides your own. But that was
12 the whole reason to put the transmission part of it
13 together, is that you start to know all these people in
14 the substations, in the operating side, and you could
15 say, "Hey, we really need to get this line out," and you
16 could get it out. Whereas before, "Who are you and why
17 are you calling me?" You know, "Why should I have any
18 confidence in what you're doing?" So it's part of why we
19 set the whole thing up and how we came to the priority
20 system.

21 Q. Well, let me ask you a hypothetical based upon
22 your experience and based upon the system that you helped
23 to set up. Now let's assume that this hook and hole in
24 People's -- or in 191 is on a tower on a ridge line.

25 A. Okay.

26 Q. And that this tower is facing into the

1 prevailing wind. And that there are winds that are so
2 prevalent that they actually have a name. Let's assume
3 that name, for the hypothetical, just is they're called
4 the "Jarbo Winds"?

5 A. Okay.

6 Q. And let's assume that this hilltop where this
7 tower is sitting hasn't had any rain for over six months
8 and is bone dry conditions down underneath. And let's
9 assume that the weather forecast is for sustained winds
10 in the 30s with gusts over 50, coming directly into this
11 tower, right into the face of this tower, across these
12 hooks. Would you consider that to be an immediate threat
13 that needs to be fixed right now?

14 A. Given those conditions, yes.

15 Q. So you, as somebody who helped set up this
16 system, you think this is dangerous?

17 A. That specific one?

18 Q. Yes.

19 A. Is that the --

20 Q. That's 191 that we were talking about earlier.

21 A. Yeah, that's something I would want to get
22 fixed today.

23 Q. Let's go back to 185. And let's assume the
24 same hypothetical on 185. Let's assume that this is a
25 tower, a transposition tower, that's on a ridge line,
26 that we have bone dry conditions, and that we have

1 predictions or forecasts, weather forecasts, of sustained
2 winds 30 miles an hour, above possible, with gusts in the
3 50s. Would you consider this hook and hole to be an
4 immediate threat that needs to be repaired?

5 A. No, I would not.

6 Q. This one you don't?

7 A. No.

8 Q. How come?

9 A. Because I'm seeing more steel underneath the
10 bottom than the other one had. The other one looks --
11 and it could just be the picture in the --

12 Q. Okay.

13 A. -- feels like the distortion I'm looking at.
14 But this one picture, that actually looks like there's so
15 little steel left it's starting to distort. This one
16 does not look that way to me.

17 Q. Okay.

18 A. This one looks like it has some actual steel in
19 it, similar to the hole behind it.

20 Q. All right. I want to switch gears a little bit
21 with you here.

22 A. Okay.

23 Q. After you were promoted to superintendent, did
24 you say you left transmission and went back to
25 distribution?

26 A. Correct.

1 Q. And do you recall approximately what year that
2 would have been?

3 A. '92 maybe. I don't know. It was early '90s, I
4 believe. No, that can't be right. Had to be mid to late
5 '90s.

6 Q. Okay. Did you stay on in distribution as a
7 superintendent of distribution through your retirement in
8 2010?

9 A. For the most part. I did a couple special
10 project things, but, again, I was still a superintendent.
11 So yes.

12

13 (Grand Jury's Exhibit 174 was marked for identification.)

14

15 Q. I want to bring up the photograph that's marked
16 as Exhibit 174 for you. Now I want to ask you about
17 something very specific.

18 A. Okay.

19 Q. Do you recognize what this rectangular silver
20 box, I guess --

21 A. Yes.

22 Q. -- with three --

23 A. Three. They got three bolts in. They're
24 called parallel grooved clamps, PGs for short.

25 Q. Are they also called connectors?

26 A. Yes.

1 Q. You're familiar with those?

2 A. Yes.

3 Q. Now, even though you were out of the
4 transmission world by the mid 2000s -- well, let me back
5 up. How are you familiar with those three-bolt
6 connectors?

7 A. First of all, when I was a lineman, we used
8 them. But they've, they're on distribution and
9 transmission. Those are just with aluminum wire
10 connected to aluminum wire, or aluminum alloy to aluminum
11 wire. We used those kinds of connectors probably early
12 '70s until the mid 2000s maybe.

13 Q. At some point in the mid 2000s, did these types
14 of parallel groove connectors fall out of favor?

15 A. Yes.

16 Q. Do you remember when and why?

17 A. Well, I don't remember exactly when, but the --
18 companies are always developing new connectors and new
19 ways, and this is better than the last way. So one of
20 the problems we had with these connectors is like some of
21 that wire may be all aluminum, some of it may be aluminum
22 with a steel core, and you're connecting that with
23 another piece of aluminum. When, when you put a lot of
24 current through that, it heats. Gets hot, expands,
25 cools, hot, cool. These connectors are not of exactly
26 the same metals that your wires are made of, and so they

1 expand and contract ever so slightly different than the
2 wire does.

3 So this new company came up with, they call it
4 a "wedge connector," that it fires this wedge in there,
5 springs this thing out. And they claim it's a much
6 better connector than these bolted connectors. And
7 after, you know, lots of people testing this stuff, PG&E
8 adopted them as a better connector, so they started a
9 program of all the new connectors were going to be the
10 wedge connectors, and at some point they're going to
11 replace these others. But we've had these others for
12 almost all the time I worked at PG&E, almost 40 years.
13 And they worked well. But you have companies that have
14 something that's better, then we want to do what's
15 better.

16
17 (Grand Jury's Exhibit 194 was marked for identification.)
18

19 (Grand Jury's Exhibit 194A was marked for
20 identification.)
21

22 Q. All right. I'm going to move up to 194. This
23 is a cover page for a publication entitled *Power Line*
24 *Equipment Information Pocket Guide*. Are you familiar
25 with this publication?

26 A. No. Interesting. I'll have to look it up.

1 Q. But we don't care about that.

2 A. Okay.

3 Q. I want to talk to you about page 40.

4 A. Okay.

5 Q. Which is Exhibit 194A.

6 A. Okay.

7 Q. Do you see that?

8 A. Yep.

9 Q. Are those the parallel groove connectors you're

10 talking about?

11 A. Yes.

12 Q. And there are different configurations and

13 different sizes of them?

14 A. Yeah. The smallest one down at the bottom went

15 on the smallest wire. So because it doesn't carry that

16 much current, the connector can be smaller. As you go

17 up, those connectors can carry more and more current

18 through, and are used on bigger and bigger wire. So the,

19 like the largest aluminum conductor we had used those, we

20 called "three-bolt bricks" on the top, and then various

21 sizes depending on which kind of wire you're connecting

22 and the sizes of them.

23 Q. When you were a lineman, did you routinely

24 replace these connectors?

25 A. Well, no. We replaced -- so I'm far enough

26 back that we replaced when they used to just twist wires

1 together. When I worked in San Francisco, a lot of the
2 old copper wires were just twisted together. They had
3 two pieces of wood with holes drilled in them that two
4 guys would be up there twisting them. That's how they
5 made the connections. This is way back. I got a bunch
6 out, but I haven't put them in. They were before my
7 time. But then those had a different connector than
8 these. Those new clamps, you put the two wires together,
9 and this clamp just squeezes them down. But they came
10 loose all the time. And these came along. This was like
11 at least the third iteration that I'm aware of. Then
12 these wedge-fired connectors is the latest version on the
13 perfect connection.

14
15 (Grand Jury's Exhibit 194B was marked for
16 identification.)
17

18 Q. So next I want to move on to 194B from the 2001
19 pocket guide and ask you if you recognize what's depicted
20 in that photograph of page 45.

21 A. Yeah. These are what's called a wedge
22 connector. If I might, maybe I can --

23 Q. Absolutely.

24 A. -- show you a little bit how these things work.

25 So these things, there's like a C-looking is
26 what these are. You place a wire by each side, and then

1 you put this piece of steel in the middle that looks like
2 a wedge. And then you have this, a gun that fires that
3 wedge in there. So it, it just bangs this in. It
4 springs this groove open, but this thing wants to close
5 back. It's trying to go back to its normal shape. So
6 these are real strong spring connectors. You fire that
7 wedge in. They claim this will last forever. But so
8 were the bolt ones. We'll see how it goes over time.

9 But we've had these since mid 2 -- around 2009
10 was it? No. It was older than that. We've had these
11 probably 10 to 15 years, we've had these. So these are
12 relatively new. Seem to be working great. I haven't
13 heard of any problems with them. But these are the
14 newest, and we consider the best connector on the market.
15 Okay.

16 Q. So at some point in the mid 2000s, a decision
17 was made by the company to get rid of the parallel groove
18 connectors and change over to the wedge connectors; is
19 that right?

20 A. Yes.

21
22 (Grand Jury's Exhibit 195 was marked for identification.)
23

24 Q. Now I want to go through one last thing with
25 you. You have in front of you photograph Exhibit No.
26 195. Do you recognize what is depicted in that

1 photograph?

2 A. Yes.

3 Q. What is depicted in that photograph?

4 A. Well, I should probably go back.

5 So in some areas where you have a lot of wind
6 -- what you can't see here is this string of insulators
7 hanging off of the bottom of this wire, there's another
8 string of insulators holding it up to the tower; okay?
9 But in high-wind areas, you would take, put another set
10 of insulators, and then you'd put a cable from here down
11 to an arm that's on the tower to stabilize it. Because
12 in some of these areas, the cross wind is so high that if
13 you don't, it will blow this wire either into the tower
14 or it will get the wires to bang up and, they expand.

15 So this is a system -- I mean, we haven't --
16 you don't see much of anything like this anymore but on
17 very old systems. That's how they tried to adjust the
18 tower to withstand that strength.

19 Q. So it doesn't look like this is connected
20 anymore?

21 A. Right. I can't explain why. Is this on a
22 working line?

23 Q. I can't tell you that. All I can do is say,
24 ask you if in your experience and training would this
25 be --

26 A. No.

1 Q. -- this broken line be an issue?

2 A. It would definitely be an issue. What -- the
3 only thing I'm wondering here, some of these very old
4 lines are no longer in service. And so some of them are
5 sitting out there and they're not carrying any -- you
6 know -- there's no power in them. I'm not saying that's
7 the case here, because I don't know. This could be - if
8 this is an energized line that's being used, then no,
9 this is not an acceptable condition; okay? If this is a
10 line they're getting ready to tear out, maybe it is;
11 okay? But when I first looked at it, it's like, well,
12 no, that absolutely shouldn't be like that. But if this
13 line is idle and, again, going to take it out or upgrade
14 the whole line, then yes, it might be okay.

15 Q. So let's assume that this line was actually
16 energized.

17 A. Okay.

18 Q. And --

19 A. Then this would not be acceptable.

20 Q. And back on the priority scale that you talked
21 about earlier, where would this fit?

22 A. Get it fixed today.

23 Q. This would be one of those immediate --

24 A. Yeah.

25 Q. -- priorities?

26 A. You wouldn't want this sitting -- I mean, it's

1 -- they have this in here because it's a heavy wind
2 vibration area, so you would want to get this thing fixed
3 right away.

4 Q. So that would be on a normal day; right?

5 A. Yeah.

6 Q. How about if that was on an energized line in
7 the middle of a high fire threat area, in the middle of a
8 red flag time with extreme winds forecasted?

9 A. I would really wonder how this is here and,
10 sitting here and not repaired. I mean, I don't -- this
11 -- I would really want to see the records for this to
12 make a decision on -- I mean, on the surface, it looks
13 ridiculous that we have this here, but sometimes there's
14 stuff you don't know about. But if this is a regular
15 energized line carrying power, this is a very concerning
16 problem.

17 Q. Would you say this is dangerous?

18 A. It could be if you get the winds.

19 Q. Yep.

20 A. I mean, this is --

21 Q. Well, we've been talking mainly about the
22 strand that's now disconnected. What other problems do
23 you see at this tower?

24 A. Well, I mean, this is all distorted. This is,
25 this has got a wrinkle in this steel. So this looks like
26 at some point -- looking at this, I would have to say

1 this -- one of these lines went down once before and this
2 thing twisted around. Because I can't think of any other
3 reason you would get this distorted metal.

4 Q. Have you in your career, in your long career
5 with PG&E, seen damage like that previously in a tower
6 arm?

7 A. Only when we had the wire come down.

8 Q. So if this wire --

9 A. -- breaks mid span, you've got several thousand
10 pounds that before is pulling straight down, now it's
11 yanking into the tower. It's going to want to tear this
12 arm around.

13 Now, this particular arm is only here to
14 stabilize this. This is not designed to hold any wire.
15 This is just there as a stabilizer. This steel is
16 lighter than this steel. Total different design why this
17 is here. This is not the kind of arm you would see the
18 wire hanging from normally on this system. This has just
19 been here for stable. The fact that it's all twisted up,
20 something yanked this arm this direction. You're not
21 going to get that from the vibration. That's not -- this
22 distortion is not happening from vibration.

23

24 (Grand Jury's Exhibit 196 was marked for identification.)

25

26 Q. Okay. Let's move on to the next photograph,

1 Exhibit No. 196. Do you see that photograph? You can
2 stay up here with the big board.

3 A. Okay, yes. So this is the bottom. This is how
4 it should have been attached.

5 Q. So what this, this is separate from 195, but
6 that shows you how the wire on 195 should have been
7 attached --

8 A. Correct.

9 Q. -- to the bottom of the suspension -- or the
10 insulator string?

11 A. Yeah. This is a little adjustment to kind of
12 cinch this thing up, stabilize it.

13 Q. Although the wire is obviously connected on
14 this arm, do you see any other problems?

15 A. Well, looks like this one's been distorted,
16 too. I don't think that's just a picture. It looks like
17 it's distorted. But, again, this is not, this is only
18 stabilizing this. This is not carrying any weight. It's
19 not a support piece to this tower.

20

21 EXAMINATION

22

23 BY MR. FOGG

24 Q. (WITNESS #17), I have some questions for you.

25 I don't think we've met before. I'm Deputy Attorney

26 General Nicholas Fogg. I'm helping Mr. Noel in this

1 case.

2 I want to go back to the mid to late 90's, when
3 you're still superintendent in transmission.

4 A. Okay.

5 Q. What geographic area did you cover as
6 superintendent?

7 A. It's called the East Bay. It's Contra Costa
8 and Alameda Counties.

9 Q. Do you remember approximately how many
10 troublemen you had working for you?

11 A. Three.

12 Q. Three?

13 A. When we first put it together, we had three.

14 Q. When you first started as an electrical
15 transmission supervisor, you had three troublemen;
16 correct?

17 A. Correct.

18 Q. Did that number grow by the time you became
19 superintendent?

20 A. Yes.

21 Q. By the time you became superintendent, about
22 how many troublemen did you have under your supervision?

23 A. Well, we had the same amount of troublemen, but
24 what we did is we brought, we added repair crews.

25 Q. Okay.

26 A. Because the sense was we were having -- because

1 they weren't trained the same, we were having to shut
2 lines down by not always being able to get people that
3 were trained to do transmissions. So they decided to add
4 transmission crews. And they did it in all the areas.

5 Q. Now, did the troublemen have a supervisor
6 between you and them as a superintendent?

7 A. For a while the crew worked for the supervisor;
8 the troublemen worked for me. But that eventually
9 transitioned into all of them working for the supervisor.
10 What, what else did I get assigned? Oh, I -- they
11 decided I should supervise some of the gas people, also.

12 Q. Who decided which line the troublemen would
13 inspect?

14 A. The first line supervisor.

15 Q. How -- we talked about inspections, about the
16 aerial inspections, the ground inspections, the climbing
17 inspections. Besides routine scheduled inspections, were
18 there non routine or non scheduled inspections?

19 A. Yes. You would get, just you'd get a call that
20 a line had tripped out of service. Your stations, which
21 are like -- like up here I think it's in an area -- well,
22 it's not too far from here where the main station is.
23 They control all the lines in this area. So if something
24 trips offline, because this equipment is all set up with
25 automatic things. If something happens, you get a
26 lightning strike, you get a tree comes through, hits a

1 line or something, it will cause it to trip off. If it
2 just trips off and comes back on, then they kind of want
3 you to like patrol it the next day. If it trips off and
4 stays off, they want somebody out there right now.

5 Q. Who would decide if a troubleman needs to go
6 out right away as opposed to the next day?

7 A. The first line supervisor.

8 Q. When you say "first line supervisor," is that
9 different from the superintendent?

10 A. Yes. He's the one who works for the
11 superintendent.

12 Q. Okay. And when you were the superintendent,
13 who did you report to? Who is above -- who did you
14 report to?

15 A. He was the -- what was his title? The person
16 above me had all the operators, he had all the
17 electricians, and he had all the lines side. So three
18 groups. I think he was a transmission manager maybe, I
19 believe was the title.

20 Q. So going back from the people that you report
21 to back out to the troublemen, how often -- how much
22 discretion would individual troublemen have in changing
23 -- in -- well, in deciding what they want to inspect on
24 any given day?

25 A. Well, they had -- after we started doing this a
26 couple years, we started setting up like -- you got to

1 know the lines and the access to them and how long it
2 would take to get. So you kind of set up standards of,
3 you know, you're going to do the ground -- you're going
4 to climb 12 towers a day or 8 towers a day, or whatever
5 that number would be. But you have to adjust that for
6 the territory.

7 So in my area, you got a lot of towers and
8 they're fairly close together. Guys up here, you know,
9 when I looked at some of these hills that these guys had
10 to go up, I'm sure they weren't getting as many towers a
11 day. But you get where you wanted the supervisor to kind
12 of see the area, the guy that's working in, and kind of
13 establish that. But, I mean, they had established -- but
14 I can't remember the numbers at all -- but we had kind of
15 established how many towers you wanted to get checked in
16 a day.

17 Q. Would the troublemen have much discretion in
18 deciding what they wanted to check on?

19 A. No.

20 Q. What line transmission line to check?

21 A. No.

22 Q. Was --

23 A. It was scheduled -- I mean, after we got going
24 a couple years, we had a schedule for every line pretty
25 much every week.

26 Q. Okay. Who set that schedule?

1 A. The first line supervisor, I would say.

2 Q. So Mr. Noel covered quite a bit, I just want to
3 jump around to some other subjects, fill in a few gaps I
4 had.

5 You mentioned the tower department. When you
6 were transmission superintendent in the mid 90's, did the
7 tower department inspect the towers independently of
8 anything your people did?

9 A. They, what they would do is if we found an
10 issue, then they would go look at it. You know, if a
11 troublemen saw, geez, these bolts are really looking
12 rusty or -- at the bottom you've got cement, you have a
13 piece of steel sticking up, and you attach the tower to
14 it. If that looked really rusty, you would send a note
15 to the tower department and they'd go take a look at it.

16 Q. And we talked about inspection frequency
17 earlier, and I just wanted to clarify. For the questions
18 I'm about to ask you, can we just focus on 115 kV lines?

19 A. Okay.

20 Q. When you were superintendent, approximately how
21 often would 115 kV line have an aerial patrol done on it?

22 A. I believe the aerial patrols were twice a year.

23 Q. Was that specific to your area or did you --

24 A. No, we established them system-wide.

25 Q. When you say "we" established them, who is we?

26 A. The various -- you know, we had seven

1 superintendents.

2 The thing we really wanted out of this is
3 consistency. So whatever we were going to do in North
4 Valley, we were going to do in the Bay Area, and we were
5 going to do south, as far as patrol times, how often and
6 that kind of thing. It was somewhat driven by is it
7 coming from a generator? Like we had the geysers that I
8 remember was always a -- we did more patrols on the
9 geyser line. We did more patrols on the lines going into
10 Diablo Canyon. Did more patrols on the 500.

11 As the 115s, there's only a few of the bigger
12 power plants that have generation running into the 115.
13 So most of the 115 lines were at the lower end of how
14 often we did them. But even at the lower end, it still
15 was getting like one climbing patrol and two aerial
16 patrols a year.

17 Q. So was it -- let's go from the aerial to
18 climbing and ground. What's the distinction again
19 between a ground inspection and a climbing inspection?

20 A. The ground inspection, the troubleman uses his
21 glasses, his, you know, binoculars, and looks for issues
22 in the tower and checks the base. You know, are there
23 any slides? Is the tower itself distorting? Are there
24 any apparent issues?

25 On the climbing patrol, they wanted you to go
26 up and basically check every nut and bolt that --

1 Q. Right.

2 A. -- that it was in good shape.

3 Q. So when you were superintendent in the 90's,
4 how often would 115 kV line receive a routine ground
5 inspection?

6 A. I think our plan was to do it every five years.
7 I don't believe it was happening before we came along.

8 Q. How about were climbing inspections routinely
9 scheduled?

10 A. Yes.

11 Q. How often would a climbing inspection occur on
12 a 115 kV line?

13 A. Every five years.

14 Q. So --

15 A. Isn't that what I said?

16 Q. Well, let's go back to ground inspections. How
17 often were the ground inspections?

18 A. Ground inspections every year.

19 Q. As for climbing inspections?

20 A. Every five years.

21 Q. Okay. I gotcha.

22 A. Sorry if I confused that.

23 Q. So if it's confusing, it's usually the
24 questioner, not the witness.

25 I want to jump back. You said the seven
26 superintendents, you talked about you came up with a

1 schedule. Was there a formal process that you had for
2 the seven superintendents to work together and create a
3 schedule, or is this something that developed because you
4 worked together?

5 A. It was something that I think our director
6 insisted on, because that's why we were there.

7 Q. So that was a process directed -- well, the
8 seven supervisors -- seven superintendents, sorry,
9 working together to form the schedule was directed from
10 the manager above you?

11 A. Well, as far as they wanted a schedule, and
12 they wanted us to -- like they wanted to compare that to
13 like the schedule Southern California Edison was doing,
14 because they felt there should be consistency across all
15 the power companies in California.

16 Now, we -- I'm sure we never got to everything
17 being consistent, but they wanted us to -- I mean, all of
18 us seven wanted to have the same thing happening. You
19 know, so it was in our best interest to work together.
20 And we really -- I don't remember ever having a problem
21 with any of the superintendents. They were all new, they
22 were all wanting to get into this. But we were looking
23 to have a consistent scheduling system.

24 Q. Okay. Well, you -- we talked about a photo
25 book earlier that was developed for training new
26 troublemen. Did that set of photos, that photo book,

1 have a name?

2 A. No. It was, it was just how we got started.

3 And, you know, our plans were to really -- I don't know

4 that we ever imagined it this thick, but we planned on

5 having something with examples of whenever you have like

6 one of those codes that says check for the eye on -- the

7 eye wear on the arm, what does that mean? So you wanted

8 to have kind of a picture of here's a good one, here's a

9 bad one, kind of with every condition that you had.

10 Twisted seal? When's it twisted, when's it not twisted?

11 How do you determine that?

12 Q. Okay. Now, if we go back --

13 Marc, can you go to Exhibit 181, please? I

14 just wanted to -- a question came to me while we were

15 looking at it. I wanted to circle back to it.

16 You mentioned earlier in your testimony you

17 might not replace a hook if you were replacing insulators

18 that were a year old or so?

19 A. Yes.

20 Q. How would you determine how old an insulator

21 string is, like the insulator strings depicted in Exhibit

22 181?

23 A. Well, what -- how I meant that is if you go out

24 there and that hook is like brand new --

25 Q. Right.

26 A. -- because it just got replaced a year ago,

1 then you're probably not going to replace it. If it's
2 showing any wear -- there was never any, gee, don't
3 replace it until it gets to this level. I mean,
4 typically the linemen had a bag and a -- they carried
5 them in the pouch. And when you go to pop them off, if
6 they showed any wear, you'd put the new ones up. I mean,
7 there was -- you never waited for it to wear to any
8 level.

9 Q. If you wanted to determine how old an insulator
10 string is, like what's depicted in Exhibit 181, how would
11 you go about doing that?

12 A. I don't know.

13 Q. Same question for the tower itself.

14 A. The tower department had pretty good records on
15 when each of those lines were built and any modification
16 that went on. That department had just a wall full of
17 pictures of different towers and sizes. So I'm thinking
18 they would have that information.

19 Q. Do you know if, from your time at PG&E, do you
20 know if insulators had a specified life span?

21 A. No, they did not.

22 Q. Let me clarify that. Did you not know or were
23 you not aware of a life span?

24 A. Well, we asked that question many times, and
25 the response we got back from the manufacturers was there
26 is no life span on them; they can last forever.

1 Q. Did you -- how about the C hooks or the J
2 hooks, did you know if they had a life span?

3 A. I do not know.

4 Q. How about a steel tower?

5 A. I don't know.

6 Q. You mentioned earlier in your testimony that --
7 well, let me take a step back.

8 How did you become aware that hanger plates and
9 hooks were hardware that troublemen should be paying
10 attention to?

11 A. Well, we had -- I know I shouldn't guess.
12 Because -- I know that I -- because of the records, I
13 know I turned in those. I'm just thinking the troubleman
14 was out patrolling, saw them, called my attention to
15 them, we took them down, and I had them tested.

16 Q. You're talking about the 1987 test --

17 A. Yes.

18 Q. -- we discussed earlier?

19 A. Yes. I believe that one of my troublemen just
20 found it in his patrol, and we took them down and had
21 them tested.

22 Q. So before that patrol in 1997, were you aware
23 that hooks and hanger plates could be an issue on
24 transmission towers?

25 A. No. No, I don't think I ever remember seeing
26 that an issue when I was doing change-outs of insulators

1 when we were doing them hot. I don't remember it, any
2 kind of issue with that.

3 Q. I want to jump over to the wind, you mentioned
4 earlier. Did you receive any training from PG&E about
5 the effect of the wind or updrafts on transmission
6 towers?

7 A. It wasn't a training, but we had a -- the
8 company has its own weather forecasters, and we had a guy
9 from the weather bureau come in and talk to the
10 troublemen and supervisors about, well, here's some of
11 the issues that develop around that. That's the only,
12 that's the only time I remember having a weatherman
13 around. So I can remember him coming in and talking to
14 us about it. That's who I'm guessing.

15 Q. Did that, did it happen commonly to have
16 weathermen come talk to troublemen?

17 A. No. That was one time. I asked this guy to
18 come in when I became aware that we had a weatherman. I
19 didn't know we had a weatherman. I became aware of it,
20 and I said, "Hey, how about coming and talking to my
21 troublemen about this?" So one of our monthly or
22 quarterly meetings, he came in and talked to all the
23 troublemen about issues with vibrations.

24 Q. At some point when you worked for PG&E you
25 became aware of the effects that wind can have on a
26 transmission tower; correct?

1 A. Correct.

2 Q. Did you tell other superintendents about --

3 A. Well, like I said, they came and talked to them
4 that one time. That's the only time I can remember.

5 Q. But once you learned about the issues of wind,
6 with issues that wind can cause for transmission towers,
7 did you tell anyone else in the company about those
8 issues?

9 A. Just the other superintendents and our
10 supervisors and troublemen.

11 Q. Do you know, did you ever record in writing the
12 issues that wind can cause with the transmission tower?

13 A. I do not remember ever doing that.

14 Q. Let me take one second to see if I have anymore
15 questions, but I'm about done.

16 A. Okay.

17 Q. I have two more for you.

18 A. Okay.

19 Q. When you worked for, when you were
20 superintendent for PG&E in the mid 90's, do you know if
21 PG&E employed engineers that worked on transmission
22 towers?

23 A. I don't, I can't remember them ever working on
24 the towers. I mean, they, they gave us guidance.

25 Q. Let me try to ask that question differently.

26 Instead of working physically on the towers,

1 inspecting them, how about did engineers consult with you
2 or give you guidance about transmission towers?

3 A. Well, they gave us -- actually, I wasn't --
4 when I was -- later on when I was, when I was
5 superintendent and I had moved on to the division, I had
6 crews that worked for me that, that put it -- relocated
7 towers. So we interacted with transmission engineers
8 when we were doing new tower lines or modifying tower
9 lines. I don't remember having them involved when we
10 were doing this. They may have been, I just don't
11 remember.

12 Q. (WITNESS #17), I have one last question for
13 you.

14 Mr. Noel, if we can go to 185, please.

15 You mentioned during your earlier testimony you
16 thought that -- we're looking at Exhibit 185 -- you
17 thought that the tower depicted in 185 may be subject to
18 "a tremendous amount of vibration," I think were your
19 words. Why do you think -- looking at that image, why
20 would you think that tower would be subject to wind
21 vibrations?

22 A. Well, as I mentioned, I don't know that this
23 one was. This looks like it's down on flat land. May
24 not be. Looks like there's a road right next to it.
25 This all looks flat. So I'm not thinking this one's
26 going to be subject, the ones I'm seeing up on top of the

1 hill --

2 Q. In the background of 185?

3 A. Right. Those look like they're sitting on top
4 of the hill. This looks like it's down in the valley or
5 something here. That's -- it's a little hard to
6 determine, but it doesn't appear to be sitting on a
7 hilltop, so I'm not sure this is subject to wind at all.

8 Q. Okay. I just wanted to clarify that.

9 (WITNESS #17), I don't have any questions for
10 you. I'm going to check with my colleagues to see if
11 they have questions. And if they don't, we'll ask the
12 Grand Jurors if they have questions.

13 (Counsel confer.)

14 MR. FOGG: So we don't have anymore questions.

15 Do any of the Grand Jurors have questions?

16 So we have a couple. Any of the other Grand
17 Jurors have questions?

18 Give us a second to consult.

19 (Counsel and Grand Jury Foreperson confer.)

20

21 EXAMINATION

22

23 BY MR. NOEL

24 Q. All right. (WITNESS #17), we have a few
25 questions from the jurors for you.

26 A. Okay.

1 Q. In your knowledge, do the troublemen still
2 climb the steel towers?

3 A. I believe they probably do.

4 Q. Okay. But you don't know?

5 A. I do not know.

6 Q. You've been out --

7 A. I've been out of that group for ten -- more
8 than that. Quite a few years.

9 Q. Would you say you moved into transmission -- or
10 into distribution in the mid '90s?

11 A. Yeah. So twenty something years. I retired in
12 2010, so --

13 Q. When you were the -- well, who was the
14 supervisor of the seven district supervisors when you
15 initially formed the Transmission Department?

16 A. I do not remember who they were. Somewhere
17 they must have those records, but I cannot, I cannot
18 remember those people's names.

19 Q. You don't remember who you reported to?

20 A. My boss?

21 Q. Yeah, your boss.

22 A. Oh, my boss was Mel Bradley.

23 Q. Mel Bradley?

24 A. Yeah.

25 Q. Do you remember who Mel Bradley's boss was?

26 A. I can picture him, but -- it changed, while I

1 was there, a couple times, but it's a guy who retired
2 while I was -- you know -- while I was working there. So
3 I really don't remember his name.

4 Q. Okay. Were you ever pressured by upper
5 management to cut costs to inspection and maintenance?

6 A. No. When they, when they put this department
7 together, it was like whatever you need to get this
8 working right, you can get it. Now, did that last? I
9 don't know. But when we first organized and put this --
10 we never had any pressure to cut costs on any of the
11 maintenance. No one really knew how much it was going to
12 cost us, but -- so there was really an open mind as to
13 you guys need to do whatever it takes to get it done
14 right. But there was never any pressure on costs.

15 Q. Were you specifically aware of how old
16 transmission line equipment assets were in your district?

17 A. I knew, in general, how old they were. If I
18 needed a specific tower and how old it was, those records
19 were always available. You could go to the engineering
20 group in San Francisco, and they could always get you
21 those records. But I, off the top of my head, no, I
22 wouldn't know. I mean, I'd -- I knew some of the lines
23 were, you know, early 1900s, and some were being built
24 while I was there. So --

25 Q. How about the major components of the
26 transmission towers, or transmission lines?

1 A. Like how old they were?

2 Q. Yeah.

3 A. Again, I would have to have gone to the
4 engineering group and see from when the tower was. That
5 I know of, no one was keeping any records. Like if you
6 changed the insulator string because it was gunshot or
7 lightning strike or something, we weren't keeping records
8 of that. You just went out and did the work and got the
9 line back in service. And we didn't, we didn't have any
10 records before that.

11 Q. How about the conductor itself, were there
12 records of the age of the conductor itself?

13 A. Engineering group would have that.

14 Q. But you didn't have it?

15 A. No, I didn't.

16 Q. At any time were troublemen given any direction
17 on the appropriate specifications of the actual tower
18 hanging hardware?

19 A. I doubt it. I don't know.

20 Q. And finally, when you were in charge of
21 troublemen as district supervisor, were the troublemen --
22 did the troublemen have binoculars to use during aerial
23 inspections?

24 A. Yes. They actually -- we bought these -- this
25 is something we got from Southern Cal Edison. They have
26 these binoculars that stabilize when you're in a

1 helicopter. Because if you try to use regular binoculars
2 in a helicopter, you're going to be sick in about three
3 seconds. It does not take long. But they -- we bought
4 them all these special binoculars, stabilizing
5 binoculars, for every troublemen who came on. I used
6 them; they definitely work better. Because I made the
7 mistake of trying to use regular binoculars in a
8 helicopter, and that motion sensing thing, that was a
9 problem immediately.

10 Q. So going back to 187, we were talking about
11 this earlier, and that this was kind of further away than
12 you would -- the troublemen would actually be when
13 looking at this tower from a helicopter?

14 A. Yeah. Unless the winds howl.

15 Q. Right. And then you'd add binoculars into that
16 equation; correct?

17 A. Well, most cases they weren't using binoculars
18 when they were just flying along.

19 Q. Right.

20 A. It would be like if he couldn't get close, he'd
21 sit back and he'd get the stabilizing binoculars, and he
22 would see a whole lot better than this picture.

23 Q. Right.

24 A. I mean, they were very good binoculars.

25 Q. Right. So you could actually, a troubleman fly
26 along on a helicopter, looks over and sees this daylight

1 here, they all had binoculars that were issued to them,
2 stabilizing binoculars for the helicopter, and they'd
3 actually be able to focus in on that daylight --

4 A. Yes.

5 Q. -- to take a better look?

6 A. Yes.

7 MR. NOEL: Do we have anything else?

8 I see no hands.

9 I believe we are done with this witness.

10 GRAND JURY FOREPERSON: I need to admonish him.

11 MR. NOEL: Yes, ma'am.

12 (WITNESS #17), she's got one more thing to read
13 to you.

14 GRAND JURY FOREPERSON: You are admonished --

15 (WITNESS #17), you are admonished not to discuss or
16 disclose at any time outside of the jury room the
17 questions that have been asked of you or your answers
18 until authorized by the Grand Jury or the Court. A
19 violation of these instructions on your part may be the
20 basis for a charge against you of contempt of Court.
21 This does not preclude you from discussing your legal
22 rights with your own attorney.

23 (WITNESS #17), what I have just said is a
24 warning not to discuss the case with anyone except the
25 Court, your lawyer, or the district attorney.

26 THE WITNESS: Okay.

1 GRAND JURY FOREPERSON: Do you understand?
2 THE WITNESS: Yes.
3 GRAND JURY FOREPERSON: Thank you for your
4 time.
5 THE WITNESS: Will I be notified when I'm
6 released of that thing, or will that maybe never happen?
7 MR. NOEL: Yes, you will be.
8 THE WITNESS: I would be? Okay.
9 MR. NOEL: Yes.
10 THE WITNESS: Just curious.
11 [DISCUSSION OMITTED.]
12 (Lunch break taken.)
13 [DISCUSSION OMITTED.]
14 GRAND JURY FOREPERSON: Mr. Nolt?
15 MR. NOLT: Yes.
16 GRAND JURY FOREPERSON: Before you have a seat,
17 would you raise your right hand so I can swear you in?
18
19 JAMES NOLT
20 having been called as a witness in
21 the matter now pending, having been first
22 duly sworn, testifies as follows:
23
24 THE WITNESS: I do.
25 GRAND JURY FOREPERSON: Thank you. Have a
26 seat, please.

1 MR. NOEL: Did we get all the PowerPoints
2 passed out? Everybody got them?

3 GRAND JURY FOREPERSON: Yes.

4 MR. NOEL: Okay.

5

6 EXAMINATION

7

8 BY MR. NOEL

9 Q. Mr. Nolt, could you please state your full
10 name, spell your last name for the record.

11 A. James Henry Nolt, N-O-L-T.

12 Q. Mr. Nolt, are you employed?

13 A. I'm self-employed.

14 Q. And what kind of business?

15 A. I do, I do consulting engineering with mostly
16 an emphasis on forensic engineering.

17 Q. Are you an engineer?

18 A. Yes. I'm licensed to electrical, mechanical,
19 and corrosion engineering.

20 Q. There's a lot of initials behind your name.
21 I'd like to walk through them and have you define what
22 they are. MS?

23 A. That's the Master of Science Degree in
24 Electrical Engineering.

25 The EE is the Electrical Engineering license
26 from the State Board of Engineers.

1 The ME is the Mechanical Engineering license
2 from the State Board.

3 And the CRE is the Corrosion Engineering
4 license from the State Board.

5 Those three things combined tend to be a fairly
6 synergistic combination of expertise, particularly in
7 forensic work.

8
9 (Grand Jury's Exhibit 197 was marked for identification.)

10

11 Q. You have in front of you a document marked as
12 Exhibit No. 197. Do you see that?

13 A. Yes.

14 Q. Do you recognize that document?

15 A. Yes.

16 Q. What is that document?

17 A. That's my standard CV, or Curriculum Vitae,
18 resume, whatever you want to call it.

19 Q. Does that document state all of your
20 qualifications in each of the engineering fields?

21 A. Doesn't state them all, because there's been a
22 lot -- you know, many, many years of experience and
23 projects, but they are a good summary of my training and
24 education and specific kind of experience broken down
25 into different categories.

26 Q. So let's start with the education component.

1 What education and degrees do you have that qualify you
2 as an engineer?

3 A. My Bachelor of Science Degree is in Electrical
4 Engineering from the University of Washington, in
5 Seattle. And I went from there to Palo Alto, where I got
6 my Master's degree from Stanford in Electrical
7 Engineering. And I've been doing consulting engineering
8 ever since then. So that's a lot, of lot of experience
9 and background.

10 Q. Other than your formal education, your degrees
11 from Washington and Stanford, what training or education
12 do you have that qualifies you as an engineer?

13 A. Well, the process of getting the various
14 licenses from the state requires a lot of experience in
15 doing the kind of engineering under supervision from
16 other licensed engineers and training and classes. And
17 in addition, I was a member of the National, of the
18 California Conference of Arson Investigators and the
19 International Association of Arson Investigators. I've
20 taken a lot of technical fire investigation classes from
21 those organizations as well over the years.

22 Q. Can you describe the licensing process for
23 engineers.

24 A. Well, there are loosely half a dozen different
25 steps, one of which is to -- now, you don't always have
26 to have a degree in engineering, but if you start out

1 with a degree in engineering, then you take an exam with
2 the state board, what's called the Engineer in Training
3 Exam. I think they have a different name for it now.
4 And then you, if you pass that written exam, which is a
5 multi-disciplinary exam on, covering everything you've
6 ever taken in college, and if you pass that exam, then
7 you have, you go into your engineering and training phase
8 where you're supposed to be working with another licensed
9 engineer that's licensed in the discipline that you're
10 seeking a license in for anywhere between two and six
11 years of practical experience with this person. And then
12 at the completion of that various time frame, depending
13 on what degrees you have, they, you get references from
14 engineers that you've worked with and the engineers that
15 know you in that profession.

16 And all of that gets submitted to the board for
17 review. And your experience gets reviewed by other
18 professionals in the board. And then you get approved to
19 take another exam, that's the Professional Engineers
20 Exam, in the discipline that you're applying for. In
21 this particular case, electrical engineering. There are
22 different exams for the mechanical engineers and civil
23 engineers and structural engineers, so they have all
24 different eight-hour exams. All these exams are
25 eight-hour exams. EIT is an eight-hour exam on
26 everything in college. And the EE exam is another

1 eight-hour exam on, focuses just on the discipline that
2 you're seeking a license in.

3 And if you pass that, then your application
4 gets put into the next step, and the board and the other
5 professionals engineers in the board review all that
6 stuff and either grant the license or don't. And that's,
7 that's -- and you have to repeat that process for each of
8 the kinds of engineering licenses that you get. So it
9 can get involved.

10 Q. So you have three separate licenses; correct?

11 A. Yes.

12 Q. Electrical, mechanical, and corrosion?

13 A. Yes.

14 Q. So you've had to go through that process three
15 times?

16 A. Yes. And there aren't many of us around that
17 have.

18 Q. How many different types of engineers are
19 there?

20 A. There are three main types. They're called the
21 Practice Acts. And you can't do the work unless you have
22 a license, and you can't use the title unless you have
23 the license for a Practice Act engineering title. Those
24 are mechanical, electrical, and civil. You've got --
25 those are the -- you can't even do the work. You can't
26 use the title, you can't call yourself that, can't do

1 anything unless you're under the supervision of somebody
2 that is.

3 Then there's another 15 or 16 types of
4 engineering called Title Acts that anybody can do the
5 work if you know enough to be fool enough to do the work.
6 But only the person with the license can use the title.
7 They can't call themselves, in my particular case, a
8 corrosion engineer unless you have the corrosion
9 engineering license. Now, the corrosion engineering
10 license is in the Title Act category, which is sort of a
11 subset. And so anybody can do the work, but only I can
12 use the title because I've got the license. And the
13 mechanical, electrical, civil area, nobody else can do
14 the work unless you have the license and you can't use
15 the title unless you have the license.

16 Q. And what's the third subset?

17 A. Well, those, that's all I was thinking about.

18 Q. Okay. I thought you said there were three
19 subsets, but that's okay.

20 A. There are three main ones and about 16 sub
21 ones.

22 Q. Okay. All right. Misunderstood.

23 A. The sub ones, the Title Act engineers are
24 corrosion, quality, industrial, manufacturing, safety,
25 those kinds of professional engineering, things that used
26 to be granted, but they have they, have lowered the

1 statute a little bit on those.

2 Q. And you're currently a licensed electrical
3 engineer in the state of California?

4 A. Yes.

5 Q. You're currently a licensed mechanical
6 engineering in the state of California?

7 A. Yes.

8 Q. And you're currently a licensed corrosion
9 engineer in the state of California?

10 A. Yes.

11 Q. How long have you been licensed in each of
12 those disciplines?

13 A. Well, I got my electrical engineering license
14 in about 1976, the corrosion license in about 1980
15 something, early '80s, and the mechanical in the late
16 '80s. Because I realized that if I was going to be doing
17 this forensic stuff, because mechanical electrical are so
18 related when it comes to failure -- we'll get into how
19 they're related later, perhaps -- but I thought it would
20 be very helpful to have that mechanical license as well.
21 So I went, jumped through all the hoops to do all of
22 that.

23 Q. Is there a continuing education requirement
24 from the board for you as an engineer?

25 A. In California, they don't have any continuing
26 education requirements. But because I'm licensed in

1 Nevada and Oregon and Hawaii as well, Nevada and Oregon
2 do have continuing education requirements. So I have to
3 satisfy them, which is sort of a default continuing
4 education that California's benefiting from.

5 Q. That -- does engineering change from state to
6 state in terms of the concepts, the theories, the
7 practicality?

8 A. Fortunately, no. Electricity is still
9 electricity and gravity is still gravity. So what
10 changes, though, is some of the ways they want you to
11 report things and the ways they want you to document
12 things and that sort of stuff.

13 Q. You mentioned earlier that you're also a member
14 of some arson groups? California Conference of Arson
15 Investigators, and I think you said the US Conference; is
16 that correct?

17 A. International Association of Arson
18 Investigators.

19 Q. International. How does arson investigation
20 tie into being an engineer?

21 A. Well, that's -- the fact that those
22 organizations call themselves arson investigators, arson
23 investigators' association, doesn't imply that we only
24 look at arsons. It's more broadly fire investigation
25 technologies. And so it ties into engineering because
26 oftentimes when something fails or burns or dies or blows

1 up or sinks, it's an electrical issue, or it could be
2 mechanical issue, or it could be a corrosion issue. You
3 know, we've had natural gas pipelines explode because of
4 corrosion issues. We've had mechanical issues with
5 things fail because they break; they're put into, put
6 under too much load or something like that. Or we have
7 electrical issues because there's, electricity got out of
8 where it's supposed to be kept inside and did something
9 that was not intended to be done.

10 Q. Now, you said that your firm, JH Nolt &
11 Associates, does consulting work?

12 A. Yes.

13 Q. And for whom do you consult?

14 A. I do a lot of work for insurance companies, for
15 the US Forest Service, for Cal Fire, for the park
16 service, for state agencies of all kinds, cities and
17 counties, legal firms, manufacturing outfits that have
18 failures. In the forensic world, I -- they want me to
19 help them figure out what failed and why it failed and
20 what to do about it. And that's for the forensic part.

21 In the design part, I've spent a lot of time
22 when my clients want me to design buildings like this one
23 or lighting systems or air conditioning systems and
24 plumbing systems and that sort of stuff. I don't do so
25 much of that now as I used to, but I did a lot of the
26 building design and work in the past.

1 Q. What kind of jobs does Cal Fire hire you to
2 consult on?

3 A. Two kinds. The majority of it is wildland
4 fires, where they think -- where their fire investigators
5 have narrowed the issue down to an electrical item that
6 they're most interested in. They're not jumping to
7 conclusions yet and saying that this is it, but they've
8 narrowed their focus down to an electrical item and they
9 want me to look at it with my background and help them to
10 figure out whether or not this electrical item could have
11 been the source of ignition for everything else that
12 directed them in that direction.

13 And also they have me looking at -- one of the
14 things I did recently was a bulldozer. They used
15 bulldozers for wildland fires, and it had a big -- it was
16 destroyed by a fire. And they wanted to know what
17 started the fire in the bulldozer, one of those big D9
18 Cats or something like that with a cage around it where
19 the guy was inside there. And so they wanted me to look.
20 They hauled it up from LA to, down to Davis I think. And
21 I was looking at it trying to figure out what's
22 happening.

23 And then I did some, did some work for the fire
24 marshal, California State Fire Marshal. They had a bunch
25 of vehicles they had fires in, Highway Patrol vehicles,
26 and they wanted me to try to figure out what happened

1 with that. Those kinds of things.

2 Q. In November of 2018, were you retained by Cal
3 Fire to consult and assist with the Camp Fire
4 investigation?

5 A. Yes. I think I got a call from Ryan Thin
6 (phonetic), who is a, I think he was a battalion chief at
7 the time. I lose track because they get promoted and out
8 from underneath me. But -- and usually the question is
9 how quick can you get up here? And it can be Saturday
10 afternoon at 2:00 o'clock or Sunday morning at 6:00
11 o'clock, because they've been on duty for a long time
12 already, generally, investigating, because it's already
13 going. And with the Camp Fire, with those winds that
14 were blowing, I think it was a Sunday morning. He called
15 and said, "Well, how quick can you be up here?" So I met
16 him at Home Depot there in Oroville and we went from
17 there up to Pulga.

18 Q. Did you go with the Camp Fire investigators to
19 the area of origin of the fire?

20 A. That's where I -- when we got up, when Ryan and
21 I got up to the general area, which is just off Highway
22 70 there, I met Tom Kluge, who was the principal
23 investigator. He and I hiked up the trail. He took me
24 up to where their area of interest was.

25 Q. What did you observe in the area of interest?

26 A. The area of interest was, the area of interest

1 was one of these towers that you see.

2 Q. Okay. We'll get to that in just a second.

3 A. The area of interest was one of those towers.

4

5 (Grand Jury's Exhibit 198 was marked for identification.)

6

7 Q. So you have in front of you what's marked as
8 Exhibit No. 198. Do you see the exhibit?

9 A. Yes.

10 Q. Do you recognize the exhibit?

11 A. Yes.

12 Q. And what do you recognize 198 to be?

13 A. This is one of my photos. And I can tell my
14 photos because of the orange date stamp on the lower
15 right-hand corner that my camera puts on each photo so
16 that I know when it was taken and more or less in which
17 order they were taken, because keep track of time in the
18 camera.

19 Q. So walk me through your standard operating
20 procedures in a case like this where you're brought in to
21 consult and you're seeing the area of origin for the
22 first time.

23 A. Well, this picture was taken -- this is --
24 Exhibit 198 was taken looking west as I was trying to
25 climb the hills to get up to those towers. And it was a
26 pretty steep, loose gravelly area. It was very difficult

1 to get up to. And -- but my normal operation is to start
2 photographing the overall scene to try to get the context
3 understood, to try to understand where we physically are,
4 sometimes I can locate us on a map, locate the area of
5 interest on a map. You notice I'm not calling it "area
6 of origin" yet, because it's the area of interest.

7 So then I go from the biggest picture I have
8 where you can see the area of interest, and then as we
9 get closer to the areas of interest my point of view gets
10 smaller and smaller. Any structures or houses or
11 buildings, I always walk around the outside. I start
12 with where the power comes into the building and with the
13 circuit breaker panel, meter, then we go to take a tour
14 of the inside of the building.

15 And then the fire investigator and I start
16 working together very closely, and I say to him, "Well,
17 where do we go from here? Where are your areas of
18 interest? And what might there be in those areas of
19 interest that is of interest to me?" Because it's a
20 possible electrical source of ignition. And so that's
21 when I start working really closely with the fire
22 investigators. And in this particular case, it would be
23 the Cal Fire guys.

24 This early picture was just a good contextual
25 picture and shows you that, the tower of interest on the
26 right -- left-hand side there. And the other two towers

1 looking west. So that tells you where you are.

2 And then Tom and I went up further and we
3 finally got up to the base of this tower. And the next
4 picture -- can I talk about the next picture?

5 Q. Sure. Go ahead.

6

7 (Grand Jury's Exhibit 199 was marked for identification.)

8

9 A. 199 is a closeup. And this is typical of my
10 process, because as we got closer to the area of
11 interest, he started, Tom started pointing out this
12 particular tower where the, they had identified as their
13 primary object of interest, because their burn patterns
14 on the ground led them back to this general area. And
15 when you see something as catastrophic as an insulator
16 hanging there by its bottom side up, instead of its top
17 side up, then, then you know you've got something that
18 might be of really interest.

19 Q. That won't work on the big screen.

20 A. Let's give it a try here.

21 Q. For some reason, the screen eats the laser
22 pointers.

23 A. And my battery must be dead. There we go.
24 Yeah, it does. It does eat it, that's for sure.

25 Q. Yep. So you can get up and walk over and point
26 anything out on the big screen that you'd like. You

1 should go around the other way. Don't trip on those
2 cords.

3 A. I was wondering about that.

4 This is the, this is the problem area right
5 here. This insulator here should be hanging like this
6 one, with this end up and that end down instead of this
7 end up and that end down. And we'll see more pictures of
8 this in the future, but this is just my first exposure to
9 what Tom was saying that had happened on this tower.

10 Q. All right. So you can stay there. We're going
11 to move on to No. 200. And tell us what we're looking at
12 in Exhibit 200.

13

14 (Grand Jury's Exhibit 200 was marked for identification.)

15

16 A. Now, No. 200 is a classic example of my
17 process. Again, I want to keep track of where I am and
18 what I'm doing and what I'm looking at. That is the
19 serial number for the tower of interest. Where that
20 broken insulator was hanging. And this is a serial
21 number that PG&E applies to this tower. And so I just
22 documented where I was and what the tower number is,
23 because that kind of stuff is very useful later when
24 you're looking at drawings from the utility circuit maps
25 and the like, because those numbers are on the drawings
26 identifying the tower on the drawing.

1 Q. I skipped a step I want to go back to. On the
2 bottom right corner of those, of these photographs, you
3 had already referred to your, the date and time stamp
4 from your camera?

5 A. Yes.

6 Q. And can you let us know when each of these
7 photos is being taken? For instance, this photograph No.
8 200?

9 A. This one was taken on November 11th, 2018, at
10 13:32.

11

12 (Grand Jury's Exhibit 201 was marked for identification.)

13

14 Q. Great. All right. Let's move on to No. 201,
15 Exhibit 201. And can you tell us what we're looking at
16 in this exhibit?

17 A. Now, this was taken at 13:36. It's just a few
18 minutes later. And I do tend to take pictures in a
19 sequential way so that -- the time frame can be important
20 in determining whether or not that pole, that tower
21 serial number applies to which pole, because it has to be
22 a picture of a tower either before or after the tower
23 number. So these time frames can be important.

24 But the details in this particular picture,
25 this is a detail of the insulator that's hanging upside
26 down. And I was standing next to one of the legs of the

1 tower, looking up at it, trying to get -- this was way up
2 in the air, so I was using a long telephoto lens. And
3 you can see the, these are ceramic discs here that this
4 insulator is made of. And those ceramic discs have
5 broken when the insulator came down and whacked against
6 these metal parts of the tower legs.

7 And this end of it right here is the hook end
8 that where it was hanging from a hole in a piece of metal
9 up above this. And the hook broke, and it -- the
10 insulator came down. It's hanging by its conductor with
11 the bottom end up.

12
13 (Grand Jury's Exhibit 202 was marked for identification.)
14

15 Q. Let's move on to 202.

16 A. This is another picture of the same thing, only
17 with a side view. And this is taken at 11/11/18 at
18 13:51, so just a few minutes later. Here's the insulator
19 that's upside down again. It's hanging there by its
20 conductors. And it's supposed to be hanging like this
21 one is. You see on this one -- I guess we can't do that
22 on this. You can see on this one, there's an arm here
23 that goes back to the center tower. And this horizontal
24 rod, horizontal angle iron comes out and there's a couple
25 holes there in the end, and there's a hook in there, and
26 the insulator is hung in that hook and supports the wire.

1 This one, this horizontal one is the same kind
2 of thing. You can see the hole here at the end. And
3 this insulator was hanging from there just like this one
4 was.

5
6 (Grand Jury's Exhibit 203 was marked for identification.)
7

8 Q. All right. On to Exhibit 203.

9 A. Now, this is taken at 13:58, same day. And it
10 is another picture of the insulator of interest hanging
11 in its upside down mode. And here at the bottom here you
12 can see, get the first indication that there's something
13 wrong with this hook. Again, this is taken with a
14 telephoto lens. I'm not up in the air at all, I'm just
15 taking this from the ground using my tripod and my
16 telephoto lens.

17 And this is where, this is 115 thousand-volt
18 cable touching the steel of the tower. We'll get into
19 that in a little bit, but when you have 115,000 volts, or
20 even 120 volts in your house, and it touches a bare metal
21 pipe that's grounded, then you have issues because of
22 shorting and arcing. And this tower is grounded because
23 this steel structure goes down to concrete pads, footings
24 in the dirt, and so it's, it's got an electrical
25 connection directly to earth. So this is a hot wire
26 that's not insulated. And when it touches something like

1 this, you'll have issues.

2 Q. At this point in time, from this vantage point
3 you took this photo, could you see any damage to the
4 conductor itself?

5 A. Only a little bit. And I've managed to focus
6 into it a little bit later, but you can see there's a --
7 this is a stranded cable, it's probably an inch in
8 diameter. Small strands of aluminum wire that are
9 wrapped around a steel core. The steel gives it the
10 strength, the aluminum gives it the conductivity for the
11 electricity.

12 What we have here, you can see some broken
13 strands sticking out. And beyond that I couldn't see
14 much damage in this picture.

15
16 (Grand Jury's Exhibit 204 was marked for identification.)
17

18 Q. Let's go on to 204.

19 A. This is another one taken at 13:59 on -- I'm in
20 a photo thing here.

21 Now I can start seeing not so much damage, but
22 at least the black marks here that represent an arc mark.

23 This cable is big enough, like I say, it's
24 probably an inch and -- 1.1 inches in diameter, it's big
25 enough that it's covering up anything that's on the steel
26 tower leg itself. And I don't see anything down here.

1 But I do see some black marks here which are typical of
2 the burn damage that you get on wires when there is an
3 arc in that general area. And those broken strands are
4 up off the top edge of the picture here.

5 Now here you see some what's called "bird
6 caging," at least a little bit of it, at the bottom edge
7 of this picture. That happens because the wire gets hot.
8 And we can get into that if we need to.

9 Q. Why don't you go ahead and explain to the
10 jurors what is bird caging, what causes it.

11 A. In wildland fires we see a lot of it,
12 particularly in the horizontal sections of wires that run
13 over areas where you've had very hot fire on the ground
14 below. And because this is, these are aluminum strands
15 of wire that are wrapped around a steel core, much like a
16 big rope, it has smaller strands wrapped around
17 oftentimes a center core, this aluminum expands, because
18 it gets hot, at a certain rate. And the steel core which
19 is at the very center of this and is maybe a quarter inch
20 of diameter expands at a rate based on how hot it gets,
21 too. But the aluminum expands more than the steel does,
22 and the steel is what's at the core.

23 So when the aluminum gets hot, it goes zoot, a
24 lot. And when the steel gets hot, it goes zoot, just a
25 little bit. And the aluminum is twice, gets twice as big
26 as the steel does. And so when you, when you, when you

1 heat up both the wire, heat up the wire and the core
2 because of a wildland fire or other phenomenon that makes
3 the wire get hot, then you'll have this bird caging,
4 because the aluminum doesn't have anywhere to go except
5 out.

6 Q. And, for the record, as you were demonstrating
7 the heating, you were using your hands almost like a
8 balloon to expand in front of you?

9 A. Yes, exactly. And I have seen more dramatic
10 situations where the birth cage is actually 5 or 6 inches
11 in diameter and 18 inches long. If you have a big
12 wildland fire underneath the transmission line, that big
13 source of heat will do that.

14 You've all seen sidewalks that buckle in the
15 sunlight? You've seen maybe railroad tracks that expand
16 and get curlicued because of the heat? That's the same
17 kind of phenomenon here.

18 Q. This would be a good opportunity to go back
19 over some electrical basics so we can understand these
20 terms, such as you've used "volts" and -- explain to us
21 what a volt is.

22 A. Well, one good way to think of electricity is,
23 one good way, one good model for electricity in wire is
24 water in a hose. But we can't take that example too far,
25 but I'll just use it a little bit.

26 So the electricity in the wire are the amps.

1 Amperes of electricity are like gallons of water in the
2 hose. And so what is it that keeps the water in the
3 hose? The plastic of the hose itself. So what is it
4 that keeps the electricity amperes in the wire? But the
5 insulation on the wire. You see on the floor here we
6 have wires that are all insulated? That's what keeps the
7 electricity in the wire.

8 Now, these wires here are not insulated because
9 there's nothing touching them except the insulators
10 themselves. And besides, the voltage is so high that the
11 insulation would have to be about that big around to
12 contain it.

13 Q. Indicating with your hands about 18 inches?

14 A. Or about a foot anyway.

15 Q. Okay.

16 A. So they use just the air as the insulator in
17 these transmission line conductors, that's why they're
18 bare.

19 So we talked about that's what amps are. Amps
20 are like gallons of water.

21 Then there's volts. Volts are like pounds per
22 square inch of water. How much pressure is in the hose
23 pushing the water, or pushing the electricity to go
24 somewhere? And that tells you, that's the volts, or the
25 pounds per square inch of voltage.

26 Q. So what are watts?

1 A. Watts then are units of power. Horsepower is
2 measured in watts. The horsepower of your car, you
3 always think about it in terms of plain old horsepower,
4 but that's in English unit of measure. The universal
5 unit of measure is watts. So electric cars are, engines
6 are measured in watts, but they talk to people about it
7 in terms of horsepower because we all understand what
8 that is. But it's how much work can you get that
9 electricity to do how fast?

10 Q. You've talked about grounding, or the things
11 are grounded. What does that mean?

12 A. Well, on -- with electrical wires -- and these,
13 this orange extension cord here on the floor has got 120
14 volts in it, and it's providing power to this power strip
15 over here. And, I'm sorry, what was the question?

16 Q. What does it mean to be grounded?

17 A. Oh, grounded, yes.

18 The power goes from the plus side of a battery,
19 speaking in terms of DC, batteries, around to the
20 negative side of the battery. The negative side of the
21 battery is the equivalent of ground in the AC word.

22 This, this extension cord here on the floor and
23 this transmission line here is alternating current, which
24 means that it oscillates back and forth at 60 cycles a
25 second. Sixty times every second it changes direction.
26 And so does this wire here. But the DC in your car

1 doesn't do that, it always goes in the same direction.
2 But the commonality is that the DC, minus on the DC side
3 is called "ground." And in this particular case, the
4 ground is actually the ground, earth. And so you need to
5 -- when they generate AC current at the dam or the
6 nuclear generating station or the natural gas generating
7 station, whatever it is they're using, they have a big
8 connection to earth. And so earth is part of the
9 electrical wiring in this system, because all the current
10 goes back in the ground to the source that it came from.

11 Q. What is arcing?

12 A. Arcing is where you have electricity, or water,
13 getting out of the hose that it's supposed to be inside.
14 You know that if you take a needle or a pin or a nail and
15 put it into a garden hose and pull the nail out, you'll
16 have a spurt of water, particularly if the water is
17 turned on.

18 Likewise, this extension cord is similar. The
19 plastic insulation keeps the electricity inside the cord
20 and only on the wire so that it goes to where we want it
21 to go to. And so if that wire gets outside of that or
22 touches something that it's not supposed to, because at
23 the end of the cord we have metal, bare metal prongs
24 where the plug is, and if you're not careful when you're
25 plugging that in, you can get shocked. That's because
26 electricity is jumping off of the conductor onto you

1 because there was no insulator there to protect you from
2 it. And so arcing is when electricity is doing that,
3 jumping from one thing to another, when it's not supposed
4 to generally.

5 And in this particular case, this has no
6 plastic insulation on the cable and so it's relying on
7 the air to provide the insulation that keeps the
8 electricity in the wire. But if that wire gets too close
9 to something that is connected to earth, that's, the
10 electricity says, oh, well, this is a better way to go
11 back to earth, go back to where I came from, so the
12 electricity jumps off this cable and onto this metal here
13 and down to earth. And that jumping is called where the
14 arc is.

15 Q. Why is it bad for electricity, for bare
16 electrical wire like this to come into contact with a
17 metal, piece of metal like this?

18 A. Well, it's very dangerous. It's -- we go to
19 great extremes to try to design electrical systems to
20 keep the electricity inside the wire or on the wire.
21 Just like this extension cord here has been very
22 carefully engineered to keep the electricity inside that
23 extension cord.

24 This tower here, these systems have been very
25 carefully engineered to keep the electricity on this wire
26 and not going where it's not supposed to go, because it

1 creates dangerous problems, electrocutes people, creates
2 fires, and it wastes the company's product. It's just
3 like a leak on your hose. If you have water leaking out
4 your hose, it's costing you money because there's water
5 going where you don't want it to go. In your drip
6 irrigation system, for example. If you have a --
7 irrigating something you don't want to irrigate, then
8 you're wasting water on something you don't want to do.
9 So you need to plug that loop.

10
11 (Grand Jury's Exhibit 205 was marked for identification.)
12

13 Q. All right. Let's go on to photo 205 then, now
14 that we have a basic understanding of the science of
15 this. Do you recognize the Exhibit 205?

16 A. Now this is another one of my photographs that
17 I took on the same day at 14:07, so we're progressing
18 along the day a little bit. And, again, I was using my
19 long lens, trying to get good pictures of the damage on
20 this conductor right here.

21 And here you can see those broken strands that
22 I referred to earlier. And this is Exhibit 205. And so
23 -- and then you can see where the strands used to be
24 connected to the cable before they were broken, because
25 of an arc. And you can see some arc marks here.

26 The jumping of electricity through the air to

1 another piece of metal oftentimes creates either burns --
2 this is paint on here, it will burn the paint. So this
3 black carbon here -- there's a lot of sources for this,
4 but this black mark is typical of the kind of arcing
5 evidence that you'll see around. And if we were to look
6 at this cable in more detail, which we can in a bit,
7 you'll see actually the divots of the metal where that
8 is.

9 Q. All right.

10 A. There you go.

11 Q. This is Exhibit 2 -- or 29, I'm sorry.

12 A. Now, this is not one of my photographs, because
13 this was taken by another person. I think this was taken
14 by PG&E, when they were up there removing this cable and
15 bringing it down off the tower for our keeping as
16 evidence.

17 So what we see here are the black marks around
18 here. And you see these little molten, pieces of little
19 bits of molten material right here and right here. And
20 there are some down here, too.

21 This is typical when you have an arc. I don't
22 know whether you've actually seen an arc, but there are
23 some really good videos on the Internet available that
24 people have said, "Well, what temperature is an arc?
25 What temperature is the electricity when it's jumping
26 from one thing another in the air?" Well, I suspect it's

1 between 5- and 10,000 degrees, because it's a plasma. It
2 has ionized the air to a very high temperature. And this
3 high temperature is high enough to melt this aluminum
4 here. And that, this aluminum melts at about 1,200
5 degrees Fahrenheit. So this is, this is -- that's a good
6 number to know, because that tells you how hot this got
7 to be, at least that hot, 1,200 degrees.

8 So all of whenever you see this molten stuff
9 here, that means it's up to 1,200 degrees. And that's it
10 for that picture.

11
12 (Grand Jury's Exhibit 30 was marked for identification.)
13

14 Q. All right. Move on to Exhibit 30.

15 A. Now, this is another one of those PG&E details,
16 a similar kind of thing. Same kind of damage again.
17 It's just another example of arcing damage and molten
18 aluminum and the burn marks on the aluminum itself. And
19 you see this molten aluminum here? It takes 1,200
20 degrees to do that.

21 But also the interesting thing in this picture
22 here is this, because this is the steel structure of the
23 tower, and what we have here is where the arc jumped from
24 the wire to the tower and damaged the tower. Now, this
25 could be molten steel, which takes 2,700 degrees to melt
26 that. So you know the plasma arc is at least 2,700

1 degrees hot. And you can see the black damage around
2 here, because the paint that's on here has probably
3 burned and other pollutions in the air have burned
4 because of the plasma in the arc.

5 So there was electricity going from this wire
6 to the ground of the tower, and it was landing on --in
7 this area.

8 Q. Okay. Now, the area you're pointing out to, is
9 that part of the tower or is that that metal tube that's
10 attached to the, underneath the conductor?

11 A. Oh, that's a good point. This might be the
12 metal tube that's on the bottom of the conductor.

13 Q. Right.

14 A. Let's get back to some other pictures here.
15 That's the tube right here. So it was, it is steel, too,
16 I think. So we'll get to the tower pictures here in a
17 little bit. This is the tube, not the tower.

18 Q. Okay.

19 A. We have some tower stuff here, too. Here
20 again --

21

22 (Grand Jury's Exhibit 31 was marked for identification.)

23

24 Q. Let me put on -- this is Exhibit No. 31.

25 A. Exhibit No. 31. This is the tube, this is the
26 conductor, this is the tower. And I don't see any tower

1 damage here. This is the PG&E safety rope. And you can
2 see all kinds of molten aluminum here.

3 Oh, here we go.

4

5 (Grand Jury's Exhibit 32 was marked for identification.)

6

7 Q. Now we're on Exhibit 32.

8 A. 32. This is another PG&E photo.

9 Now this shows what I was telling you about,
10 because this is the one with the tower structure members.
11 And you can see this divot right here, and the divot
12 right there, and the little burn mark right there, and
13 the burn mark right here.

14 Q. Now, I'm going to have you do some drawing on
15 this --

16 A. Okay.

17 Q. -- if it comes up.

18 All right. You'd be drawing in red. And if
19 you can circle those.

20 A. Now, these two are the divots of molten steel,
21 2,700 degrees' worth, where either the cable touched the
22 tower directly or the arc went to that point on the
23 tower. I don't know which happened.

24 These black marks here are most likely to be
25 not where there was a physical touch between the wire and
26 the tower, but the arc jumped to the tower.

1 Now on the cable itself, you can -- we have --
2 whenever we have an arc, the arc is going from something
3 to something else. In this particular case, we're going
4 to make the from -- all the to marks are in red. And
5 these circles in blue are the from marks.

6 Here's where the electricity jumped from and
7 then to the tower.

8 Now these broken ones here, if I give these
9 numbers -- 1, 2, 3, 4 -- 3 and 4 are likely to be where
10 the cable actually touched the tower because the strands
11 are broken. Just the arc itself won't break a strand.
12 It will do more like 1 and 2.

13 Then we have more divots down here. And we
14 have more divots down further. Let's give this a 5.

15 Q. So strands that you've labeled as 3, 4, 5 with
16 the blue pen indicate that those are broken?

17 A. Well, no, 3 and 4 are the broken ones and are
18 more likely to have been touched. Well, maybe 5, too,
19 because the divots are so deep, but they're not broken.
20 Whereas 1 and 2 are shallow enough to maybe be just not
21 actually a touching.

22 Now this divot here, the red number 1 -- can
23 you go back to red? There we go. Red number 1, 2, 3,
24 and 4. Red numbers 1 and 2 are deep enough that that's
25 likely to have been where the actual cable touched. And
26 it was -- when the cable is arcing and all this is going

1 on, remember, the winds are going about 40 miles an hour,
2 50 miles an hour, and not only that, the winds are making
3 the cable bounce back and forth, but the arcing does
4 that, too. So that's why we have so much all over the
5 place, because everything is bouncing around. I've seen
6 big cables like this hit the ground that are hot, and it
7 bounces along the ground as it arcs, and it leaves molten
8 dirt on the ground.

9
10 (Grand Jury's Exhibit 32A was marked for identification.)
11

12 Q. All right.

13 And, Madam Foreperson, we're going to save the
14 screen as it is with the drawings on that, and we will
15 have this printed out later and marked as 32A.

16 Let's go on to 33.
17

18 (Grand Jury's Exhibit 33 was marked for identification.)
19

20 A. Now, 33 is a continuation of the kinds of
21 things we were looking at at 32, because we see the black
22 marks here along the structure leg of the tower where the
23 electricity was likely to have been arcing to the tower,
24 but the wire wasn't necessarily touching it because,
25 again, it's bouncing around.

26 Here along this horizontal element of the tower

1 we see some more ragged divots. I think 32 might be the
2 view of this from here. Whereas now we're looking at
3 straight on. Because the two divots in 1 and 2 that are
4 here are on the other -- in the previous picture. But
5 the interesting one about this is the burn marks on the
6 tower right there.

7
8 (Grand Jury's Exhibit 34 was marked for identification.)
9

10 Q. All right. Now let's go on to 34.

11 A. So here's 34 with more burn marks and some
12 actual divots. If you'll turn that back on, please.

13 There we go. That will do. That's a good
14 color, red.

15 Q. Use green. You've used red and blue, let's use
16 green.

17 A. Let's look at the divots. This is the steel
18 part of the tower. And here we have a divot, and here we
19 have one, here's another one, here's another one. See
20 how tiny these are? And they're not -- they're separated
21 and they're not -- this is more likely to be either
22 bouncing around or just the arcing, the electricity going
23 from here to there to there as it find its most
24 conductive path.

25 So that's what we have here is the damage to
26 the tower structure as the electricity goes from the wire

1 into the tower steel, which is connected to earth through
2 the footings in the ground.

3 Q. Are these here, are those all --

4 A. Well, this one here is a good example, also.
5 I'm saying that because you can see on these the little
6 bit of blackness around the edge. Here I don't see so
7 much blackness, but it could be another arc mark, too.

8 Q. So you've circled the arc, or the damage marks,
9 with green circles?

10 A. Correct.

11 Now, let's hypothesize, for example, that we
12 have bullet holes or BB or pellet holes. We wouldn't
13 have the black stuff. We would just have the divot in
14 the paint. So that's why the black stuff is important.

15
16 (Grand Jury's Exhibit 35 was marked for identification.)

17
18 Q. All right. So on to Exhibit 35. This one's a
19 little hard to see; the lighting wasn't very good.

20 A. Now, let's do this again. Now, this, just for
21 your information, this is a steel tower, and steel rusts.
22 So they put a paint on the tower. Sometimes it's
23 generally called a "coating," a "corrosion preventive
24 coating." And that's what this green stuff is here, I
25 think. It's either just plain old paint or corrosion
26 inhibitor. And it's usually fairly thick, but it doesn't

1 provide a whole lot of good electrical insulation,
2 particularly when you're talking about 115,000 volts.

3 So -- but that's why this turns black, because
4 it is something that's not steel. It's, it's something
5 that will -- let's see here, what color do we want to
6 use? Let's, let's just use black, because I'm only going
7 to do one here.

8 Because that's just another black mark. I
9 don't see any divots or damage. I don't see any damage
10 to the coating there, as though the electricity made it
11 all the way down to the steel.

12

13 (Grand Jury's Exhibit 35A was marked for identification.)

14

15 Q. Let's save that, the drawing. That will go up
16 to 35A. Okay. Let's hit cancel. We don't want to open
17 it, we just want to save it.

18 All right. So we've looked at a bunch of
19 pictures of the structure. Let's go back to looking at
20 some of the conductor. And this is Exhibit No. 50.

21 A. This is a good one, because it is an extreme
22 example. Remember we were talking about the broken
23 strand? This is a strand. That's a strand. There's
24 umpteen strands here. And there's about three layers of
25 strands here. This is the outside layer, here's the next
26 inside layer, and there may be another one on the inside

1 of that. And then inside that is where the steel is.

2 But here, because you have broken strands and
3 you've got molten metal at the end of the strand -- this
4 is not a picture in very good focus, but I think this is
5 a molten end here. That's, that all goes to this fact
6 that this was damaged because of an electric arc melting
7 this wire and breaking the wire, because it just melted
8 it.

9 Now, if you were to take this -- we'll get to
10 this perhaps in a bit, but if you were to take these
11 strands and lay them back down as though they were still
12 there, you'd find that you have missing metal. You'd
13 have a little bit of missing metal right here. Because
14 this strand, when you lay it down, is not long enough to
15 touch that end. And that missing metal is critical.
16 We'll get to that in a bit.

17

18 (Grand Jury's Exhibit 51 was marked for identification.)

19

20 Q. All right. Moving on to Exhibit 51.

21 A. Here's more of the black marks, arcing, the
22 electricity jumping around, and the cable hitting the
23 wire. And this is all molten damage to the aluminum. We
24 didn't break any strands here, but that's what's going on
25 there.

26

1 (Grand Jury's Exhibit 52 was marked for identification.)

2

3 Q. And Exhibit 52?

4 A. Here's our broken strands again. And this is
5 just, this is after it was down on the ground. So this
6 is just a stick right here. That's not a strand. But
7 let's go to the next one.

8 Q. Well, from this, one thing I wanted to ask you
9 about, we were talking earlier about bird caging. From
10 this angle, looks like a much better angle to see this
11 bird caging, is that what's going on here?

12 A. Well, it -- maybe and maybe not. Because this
13 got very hot right here because of the arcing. We
14 already know this was 1,200 degrees. And so this little
15 bit of stuff may be the differential expansion because of
16 the heat generated here, but -- this is a possibility,
17 but it's not as good an example of bird caging as can be
18 seen.

19 Q. Right. And then the area we talked about bird
20 caging earlier, a little bit different angle of it here
21 on this side, with the black scorch marks?

22 A. Or right in here, too. That's another
23 possibility for sure. But that's -- what's most
24 important to remember in these closeup pictures is you're
25 looking for missing metal.

26

1 (Grand Jury's Exhibit 53 was marked for identification.)

2

3 Q. And Exhibit 53?

4 A. Same thing. Because we have missing metal
5 here. You see this big divot? And if you were to lay
6 these strands back down, you would not have enough
7 material to make contact.

8

9 (Grand Jury's Exhibit 54 was marked for identification.)

10

11 Q. All right. Let's go on to 54.

12 A. This is a detail of the broken strands one.
13 And you can see missing metal here in this divot. And
14 this is missing metal here. And all of the strands are
15 pointy end, which suggests that it was either melted
16 because -- it had broken because of the divot, or it
17 melted because it pulled apart when it was soft and
18 malleable.

19 Q. All right. So you talked about missing metal.
20 Did you search around the base of the tower for missing
21 metal?

22 A. Absolutely. Because we already know that in
23 order for this to be molten, which this was at one
24 time --

25

26 (Grand Jury's Exhibit 206 was marked for identification.)

1
2 Q. Before you start referring to it, let's -- you
3 now have Exhibit No. 206 in front of you; correct?

4 A. Correct.

5 Q. You recognize that photograph?

6 A. This is one of the pictures I took the same
7 day, 11/11/2018 at 14:24 -- 14:22, sorry.

8 And the reason this one was interesting was
9 because this piece of aluminum here was molten at one
10 time. You can see in the center here, you can see it's
11 niched down. You can see the rounded ends here and here.
12 And, likewise, on this little piece of metal right here,
13 it was molten at one time.

14 So keep in mind that we're looking for missing
15 metal. Well, this is a possibility for where it is now.
16 And if it hits the ground at 1,200 degrees or more,
17 because we know that the arc is -- could be as much as 5-
18 or 10,000 degrees, so we don't know the exact temperature
19 of this wire, but it was at least 1,200 degrees.

20 So let's assume it's 1,200 when it hits the
21 ground. What's on the ground? Well, cellulosic material
22 is the general word for grass. What does grass ignite
23 at? You can remember from the movie *Fahrenheit 451*,
24 remember that old movie? Paper burns at 451 degrees.
25 That's the good rule of thumb, because is 1,200 more than
26 451? Yes. So this 1,200-degree metal will ignite this

1 cellululosic material like this pine needle.

2 Q. Which brings up a good point, because we're
3 looking at an exploded view, a closeup view, of these
4 things without much to scale. Tell us how big these
5 pieces actually are.

6 A. Well, I don't know how long it is, but the
7 diameter of this strand is probably about the size of a
8 pencil lead. It's the same strands we were just looking
9 at on the other cable, on the other photos. So these are
10 maybe a couple inches long. This is maybe an inch or so.
11 And oftentimes I try to throw down a scale for that
12 purpose, but I didn't do that on this one because the
13 wind was howling up there, it was amazing. And we were
14 all cold.

15 One of the questions I was wondering about, I
16 said, "Well, Marc, where is all the -- if there was so
17 much grass up here and it caught fire because of the
18 hypothesis I just shared with you, where is the ash?"

19 And they said, "Well, it all blew away because
20 the wind was so strong."

21 This was very strong winds at a peak, on a
22 ridge, and it was howling through there like nobody's
23 business.

24 MR. NOEL: Jurors, please remember the
25 admonition you've been given about hearsay. It's not for
26 the truth -- to be considered for the truth of the

1 matter.

2 Okay. Let's move on to 207.

3

4 (Grand Jury's Exhibit 207 was marked for identification.)

5

6 A. Here's another example of that missing material
7 we were looking for. I think it's just the same picture
8 of the same piece of metal that we were looking at on the
9 ground.

10 Q. Okay. And 208?

11

12 (Grand Jury's Exhibit 208 was marked for identification.)

13

14 A. This is another one taken at 14:21 or so. And
15 then same piece of metal. Here's the longer one with the
16 melted piece in the middle and the smaller one over here.
17 Trying to get one of the good ones in focus.

18

19 (Grand Jury's Exhibit 208A was marked for
20 identification.)

21

22 Q. And 208A?

23 A. Same thing. All have been blown up a little
24 more. You can see that this was definitely molten at one
25 time.

26 Q. So we spent a lot of time focusing on these two

1 little pieces of metal. What is the significance of
2 these two pieces of wire being down there on the ground
3 in amongst the rocks?

4 A. Well, they are, they are -- first of all, they
5 are one of many, they are two of many little pieces of
6 molten material that was on the ground. And that the
7 significant is the temperature of that metal when it hit
8 the ground was likely to have been high enough to ignite
9 the material that was on the ground, meaning the grass.

10 Q. We'll go back to that. I'm skipping ahead.

11 Okay. Based upon your observations, based upon
12 being up at the scene, the photos that you've taken, the
13 evidence that you saw up there, as well as the
14 photographs that were taken by the PG&E crews as the
15 parts were being taken off of the tower, do you have an
16 opinion as to whether or not that 115 kV line was
17 energized at the time that the hook gave way and dropped
18 the insulator string upside down?

19 A. Yes, it was energized, because when I was there
20 it was not energized and nothing was happening. Had it
21 still been energized, we would have still seen some
22 bouncing around. We would have seen some arcing. We
23 would have seen the electrical flashing between the tower
24 and the conductor. And just for their own safety
25 purposes, I think PG&E turned off the power to that --
26 those lines. And so -- but it was energized at the time

1 it occurred, and it was energized when I was there.

2 Q. How can you tell that the line was energized
3 when the hook broke?

4 A. Because of the -- had the line -- had the hook
5 broken -- let's think through this. Had the hook broken
6 and the line not been energized, nothing would have
7 happened. You'd see that insulator and the wire hanging
8 there. You would not see the burn marks on the structure
9 of the tower. You would not see the molten material on
10 the conductors themselves. You might see some mechanical
11 divots where it hit the tower. You would see a little
12 denting maybe. But you wouldn't see the black burn marks
13 and the molten melted metal around the steel tower area
14 and on the conductor itself had the hook broken when it
15 was not energized. In order for that stuff to have
16 happened, the hook had to break when it was energized.

17 Q. All right. Thank you on that.

18 Now I want to show you a couple other pictures
19 real quick. Number 195. Do you recognize that
20 photograph?

21 A. Yes. This is a picture I took on -- at the
22 early stages of 11:41 on the 11th trying, just trying to
23 characterize what was around me. This is a photograph
24 from the tower of interest, which is where we had that
25 broken insulator.

26 Q. 27/222?

1 A. Correct. This is a photograph from that
2 27/22 --

3 Q. -- 22.

4 A. -- looking east to the next tower along the
5 line. Because I saw what we have here. And I wanted to
6 document it, because it represents to me a repair that
7 needed to be done promptly. Because this is a threaded
8 piece that's supposed to be inside this threaded nut to
9 hold this insulator down. And if the next picture is
10 what I think it is --

11 Q. Yep. Next picture 196.

12 A. This is what it should look like. This is the
13 same tower on the other side of the tower. This is what
14 it looks like. And this wire is here to keep the
15 insulator from waving in the wind.

16 If you could back up again, please.

17 This one is not here, and it's hanging there.
18 And so that needs, needs prompt attention.

19 But the other interesting thing about this
20 picture are these angle irons that form the structure of
21 the tower. This one right here and right here and right
22 here. You can see this particular structure has been
23 bent in the past and maybe straightened out, but not
24 straightened out very well. And certainly not repaired
25 with new material. Because if this -- this can only
26 happen when the wind is blowing out of the picture and

1 bending this wire, bending that angle iron down.

2 Q. Or is it possible, as an engineer, that that
3 damage could have been caused by a conductor failure,
4 that the conductor broke somewhere and it was being
5 yanked?

6 A. I don't think so. Because this is, this is the
7 conductor right here.

8 Q. Right.

9 A. And it could have, but the point is it's not
10 structurally as sound as it should be or as it used to
11 be. And if you look at the next picture, you can see --
12 this is the other side of the same tower -- you can see
13 this is bent, and it should be straight.

14 Q. All right. I believe that is all the questions
15 that I have at this point.

16 Anything?

17 MR. FOGG: Few follow-ups.

18 MR. NOEL: Go ahead.

19

20 EXAMINATION

21

22 BY MR. FOGG

23 Q. Mr. Nolt, how do you know that the conductor
24 you've seen in these pictures today was not -- how do you
25 know the conductor was not insulated?

26 A. How do I know it was not insulated?

1 Q. How can you tell by looking at those pictures?

2 A. Because the bare metal is visible.

3 If -- on this, in the example of this extension
4 cord on the floor here, you can tell that's insulated
5 because of the orange plastic on the outside of it. Were
6 you to take a pocket knife and shave that off, you'd get
7 down to the copper. And if you were to shave it off for
8 its entire length, you'd see bare copper. And so I would
9 say then that that copper is not insulated. Just like I
10 would say on this aluminum up here, on the transmission
11 conductors, that they were not insulated either.

12 Q. So as we're looking at Grand Jury's Exhibit 53
13 behind you, the fact that you can see the bare metal
14 tells you it's not insulated?

15 A. Correct.

16 Q. The last question I have is how do you know the
17 tower was made of steel, transmission tower?

18 A. That's a reasonable hypothesis at my level,
19 because it's most unlikely that it would be anything
20 else.

21 Q. Can you explain for me a little bit why you
22 would make that hypothesis, or why you consider it to be
23 reasonable?

24 A. Well, steel is, steel is really strong. And
25 just in the atmosphere of my work, there are steel
26 towers, period. I haven't gotten into the metallurgy of

1 the tower structure. They've always just been assumed to
2 be steel. I don't know which alloy, I don't know which
3 -- the details of the steel, but it is generally known to
4 be steel.

5 Q. So you're saying that based on your experience
6 in this profession?

7 A. Right.

8 MR. FOGG: No further questions, Mr. Noel.

9 Do any of the Grand Jurors have questions for
10 Mr. Nolt?

11 Must be done.

12 MR. NOEL: I believe that's it.

13 THE WITNESS: Thank you all.

14 MR. NOEL: Mr. Nolt, before you go, there's an
15 admonition the foreperson has for you.

16 THE WITNESS: Thanks.

17 GRAND JURY FOREPERSON: Mr. Nolt, you are
18 admonished not to discuss or disclose at any time outside
19 of the jury room the questions that have been asked of
20 you or your answers until authorized by this Grand Jury
21 or the Court. A violation of these instructions on your
22 party may be the basis for a charge against you of
23 contempt of Court. This does not preclude you from
24 discussing your legal rights with your own attorney.

25 Mr. Nolt, what I have just said is a warning
26 not to discuss the case with anyone except the Court,

1 your lawyer, or the district attorney.

2 THE WITNESS: Okay.

3 GRAND JURY FOREPERSON: Do you understand?

4 THE WITNESS: All right.

5 GRAND JURY FOREPERSON: Thank you for being
6 here with us today.

7 THE WITNESS: You're welcome. Thank you.

8 [DISCUSSION OMITTED.]

9 --oOo--

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COURT REPORTER'S CERTIFICATE


This is to certify that I, JENNIFER L. HUNT, CSR, a Certified Shorthand Reporter of the State of California, was present at the time and place the foregoing proceedings were had and taken in the within matter; that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings and afterwards caused my said shorthand writing to be transcribed into typewriting. Further, pursuant to CCP237 all reference to jurors by name has been redacted.

The foregoing pages beginning at:

1 through 151

are certified to be a complete transcription of said stenographic shorthand notes.

DATED: THIS 6TH day of JUNE 2022



JENNIFER L. HUNT, CSR 10735
OFFICIAL REPORTER

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IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

REDACTED

BCSC-2019-GJ-01

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, JUNE 18, 2019

VOLUME 10

OROVILLE, BUTTE COUNTY, CALIFORNIA

LISA MCDERMID WELCH, CSR 10928, OFFICIAL COURT REPORTER

SEALED PURSUANT TO PENAL CODE 938.1 (b)

1 APPEARANCES:

2
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15 --oOo--

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1 OROVILLE, BUTTE COUNTY, CALIFORNIA

2 JUNE 18, 2019; 11:15 a.m.

3 (Confidential Grand Jury Hearing Proceedings)

4
5 (ROLLCALL OMITTED.)

6
7 MR. NOEL: Thank you. The first witness today
8 we'll call would be (WITNESS #2).

9 Sergeant at Arms.

10 [The witness enters the courtroom.]

11 GRAND JURY FOREPERSON: (WITNESS #2), before you
12 sit down, raise your right hand, please, to be sworn.

13 Okay. Do you solemnly swear that the evidence
14 you shall give in this matter pending before the grand
15 jury shall be the truth, the whole truth, and nothing but
16 the truth so help you God?

17 THE WITNESS: Yes, Ma'am.

18 GRAND JURY FOREPERSON: Thank you. Have a seat,
19 please.

20 **EXAMINATION**

21 BY MR. NOEL:

22 Q. (WITNESS #2), would you please state your full
23 name spelling your last name for the record.

24 A. Okay. (WITNESS #2), [Redacted spelling.]

25 Q. And I guess just because there's so many
26 different spellings, could you spell (WITNESS #2) for us.

1 A. [Redacted spelling.]

2 Q. (WITNESS #2), are you employed?

3 A. Yes.

4 Q. By whom are you employed?

5 A. Pacific Gas & Electric.

6 Q. How long have you worked for Pacific Gas &
7 Electric?

8 A. Fourteen years.

9 Q. And what do you do for Pacific Gas & Electric?

10 A. I'm a hydro electrician.

11 Q. What is a hydro electrician?

12 A. A hydro electrician is -- basically we maintain
13 all the water conveyance equipment in the Feather River
14 Canyon along with the powerhouses. The generators,
15 anything that's associated with the powerhouse.

16 Q. Okay. What is a water conveyance?

17 A. That would be like the dams. There's power dams
18 up the Feather River, there's canals, there's trash rakes
19 on the flumes. Anything associated with moving water.

20 Q. When you hear the term "hydro electrician," it
21 seems to be somewhat contradictory. You don't want water
22 and electricity. But you use water to --

23 A. We use water to generate electricity, yeah. So
24 you're right. It sounds odd, but it definitely is --
25 we're generations so we're supporting generations.

26 Q. It's not the hair dryer in the bathtub?

1 A. No, definitely not.

2 Q. You're making electricity as in water?

3 A. Yes, Sir.

4 Q. And how exactly -- what do you do in that chain?

5 A. So basically what we'll do is we'll use water
6 from the Feather River. We'll run it through a unit,
7 generate electricity. And then what we'll do is we'll
8 come in -- on the off times during the outages when we
9 shut the units down, we'll come in and basically just
10 maintain the equipment, pumps, motors and, you know,
11 change the oil. And basically, that's it.

12 And then we're available for any kind of
13 failures. So we will be up there at any hour, you know,
14 in the middle of the night, whatever it takes to keep the
15 units online.

16 Q. November 8, 2018. Do you remember where you
17 were working that day?

18 A. Yes, Sir.

19 Q. Where at?

20 A. So I was at Cresta Powerhouse which is just
21 below Pulga on Highway 70. I was pre-arranged to be
22 there at 4 o'clock. I actually left Chico at 3:00 in the
23 morning to be there at 4:00 to start setting up temporary
24 generators in anticipation of losing station service
25 power to our powerhouses.

26 Q. Was this something unusual?

1 A. No. We've lost power before but not -- not --
2 usually it isn't planned. We were setting up for a
3 planned power shutdown.

4 Q. Was this related to maintenance or was it
5 related to weather?

6 A. Weather.

7 Q. Okay. So you were prepping for the power to go
8 out as part of the public safety shut off?

9 A. Yes.

10 Q. Okay. You said you left Chico at around
11 3:00 a.m.?

12 A. Yes, Sir.

13 Q. And you were at Cresta about 4:00?

14 A. Yes.

15 Q. Where approximately is Cresta located?

16 A. Cresta is probably six miles down Highway 70
17 going east from Pulga, the Pulga turn, the Pulga grade.
18 It's probably 20 miles from Oroville. It's not too far
19 in the canyon.

20 Q. Okay. And you got there at about 4:00 a.m.?

21 A. Yes, yes.

22 Q. At some point did you become aware of a fire?

23 A. Yes, Sir. At about, I want to say, 6:00, maybe
24 6:40 somebody stopped in at the powerhouse. We were
25 basically in the basement setting up pumps. And
26 somebody -- I think it was a contractor who was working

1 in the area -- drove down into the powerhouse and said
2 that did we know there was a fire, you know, downstream
3 of where we were at.

4 Q. Do you know the name of that contractor?

5 A. It was somebody who worked for Syblon Reid, I
6 believe. I don't know the guys's name, but I do know it
7 was definitely a contractor working -- I believe he was
8 working at Poe Dam.

9 Q. Okay. And the contractor's name was Syblon
10 Reid?

11 A. Who he worked for is called Syblon Reid.

12 Q. Do you know how to spell that?

13 A. I want to say S-y-b-l-o-n R-e-i-d. Syblon Reid.

14 Q. Okay. Do you know what Syblon Reid does?

15 A. They are -- basically, they do -- they can do,
16 like, civil engineering work, road work. They work on,
17 like, heavy hydraulic work. Basically just a
18 subcontractor for us that we use. And I've seen them
19 around the canyon for several years. So they weren't
20 new.

21 Q. Okay. So this person shows up at the Cresta
22 Powerhouse and tells you?

23 A. Yeah, there's a fire up -- downstream of where
24 we're at on the hillside.

25 Q. So what did you guys do?

26 A. So the first thing we did is we went upstream of

1 the powerhouse and looked out across the river. And we
2 didn't see anything. And then as we went down onto
3 the -- they call it a tailrace. It's a big concrete
4 structure where the water -- where the tailrace water
5 comes out. And sure enough you could see in the distance
6 down -- you know, downstream you could see just maybe
7 enough flame to fill this room right here (indicating).

8 Q. And could you tell where that flame was located?

9 A. I could tell it was -- it looked like it was
10 about halfway up the hillside from where I was looking.
11 I knew there was railroad tracks down below so I know the
12 railroad had been working. So I didn't know if it was
13 something coming up from the railroad. I really didn't
14 have a very good vantage point to see. I saw where the
15 flames were, but it was like there was hillside to the --
16 down below it. So I couldn't tell if it got to that
17 point or started right there.

18 Q. Okay. Did you have a phone with you?

19 A. Yes.

20 Q. What kind of phone?

21 A. I have a -- just a company cellphone.

22 Q. All right. Smart Phone?

23 A. Yes.

24 Q. Equipped with a camera?

25 A. Yes.

26 Q. Did you take some pictures --

1 A. I did.

2 Q. -- of what you saw?

3 A. Yes.

4 Q. In front of you you have what is marked as
5 People's Exhibit Number 220.

6 A. Okay.

7 Q. Do you see that there in front of you?

8 A. I do.

9 Q. Do you recognize that photograph marked as
10 Exhibit 220?

11 A. I do recognize this photograph, yes.

12 Q. Did you take that photograph?

13 A. I did.

14 Q. Did you take that photograph on the morning of
15 November 8, 2018?

16 A. Yes, Sir, I did.

17 Q. All right. I am going to put that up on the big
18 Smart Board.

19 Can you see the Smart Board from where you're
20 at?

21 A. I can.

22 Q. And this is the same photograph that is marked
23 as 220?

24 A. That is the same photograph, yes.

25 Q. So what are we looking at here in this
26 photograph?

1 A. Well, we're looking at -- basically if you look
2 at that flame you see on the top right, when I --

3 Q. And you can get up and point things out on the
4 board if you'd like.

5 A. Okay. No. It just seems like when I first
6 saw -- because I didn't take pictures right away. When
7 we first saw the flame, it was like down here
8 (indicating). And then I slowly within 45 minutes time
9 watched it come all the way up the hill and then over out
10 of sight.

11 Q. Okay. So you were watching this for a long
12 time?

13 A. Yes. Because, you know, in the meantime I --
14 because basically, I was in charge of several -- you
15 know, like half a dozen people. So basically I was being
16 like, you know, "We've got to be ready for this to come
17 our way. What are we going to do? Are we going to head
18 out upstream in the canyon?"

19 So we were moving vehicles away from the
20 downstream just so that we'd have a good vantage point to
21 get out. Because, you know, usually you see at least one
22 or two fires a year in the Feather River Canyon. At
23 least one. So it wasn't -- you know, it wasn't like
24 unheard of to see a fire.

25 Q. How long have you been working in the Feather
26 River Canyon?

1 A. I've been in hydro about almost nine years.
2 Q. All of it in the canyon?
3 A. No. I was in substation prior to that.
4 Q. Okay. But I mean, once you went into the hydro.
5 A. Yes, in the canyon the whole time.
6 Q. So you've been in the canyon a while?
7 A. Yes, Sir.
8 Q. All right. Let's go on to Exhibit 221.
9 A. Okay.
10 Q. Do you recognize Exhibit 221?
11 A. Yes, I do.
12 Q. Is this another photograph that you took?
13 A. Somebody else took this.
14 Q. Somebody else took this?
15 A. Yeah, yeah.
16 Q. Who is the person in --
17 A. Me. That's me holding my hardhat, yeah.
18 Q. I'm sorry?
19 A. It's so windy right there that I'm holding my
20 hardhat on.
21 Q. Okay. Do you know who took this photograph?
22 A. Yes.
23 Q. Who?
24 A. It was the guy in the next picture.
25 Q. Okay.
26 A. Yeah.

1 Q. We'll get to that in just a second. But this
2 was taken using your phone?

3 A. Yes, yeah.

4 Q. All right. And tell us what we're looking at in
5 221.

6 A. You're looking at basically the same picture.
7 The wind was ripping through the canyon, and I just -- I
8 was basically looking at it. And then the guy behind me
9 took a picture of me turned around holding my hardhat on.

10 Q. So you went up -- you left Chico, you said,
11 about 3:00 a.m. and got up to Cresta about 4:00?

12 A. Yes, Sir.

13 Q. What were the weather conditions like when you
14 got there?

15 A. You know, it was definitely windy coming down
16 through Jarbo Gap but, you know, it didn't seem -- I
17 mean, it wasn't like beyond what I have ever seen. It
18 was definitely windy, but I had been up there before
19 where it was, you know, just as windy.

20 Q. Once you got into Cresta and went to work at the
21 powerhouse, were you somewhere where you were able to
22 feel the weather conditions outside?

23 A. I really wasn't because it's a big -- you know,
24 it's a big underground building the one story up, three
25 down. So really I was busy and I never really paid
26 attention. Once I got there, the wind just wasn't a

1 factor until I went outside. And then I realized that it
2 was still really windy.

3 Q. So with the power shut off and the wind
4 conditions, how does that affect the powerhouses and why
5 were you having to go in there and do work to prep?

6 A. So basically when we lose station power, what
7 happens is our -- there's leakage from the penstock, you
8 know, into our facility. And what happens is if you
9 don't have a sump pump, you will basically flood the
10 powerhouse. You will flood the basement.

11 So there's two things you have to do when you
12 lose power is you have to maintain the sumps. You've got
13 to maintain -- got to have an active sump and you have to
14 be able to charge your battery backup system.

15 So we had already had that all in place. We
16 knew what we were going to have to do the next morning.
17 We had looked at that the night before. So I had, you
18 know, half a dozen guys coming in to help me. And that
19 is exactly what happened is we got the -- we had the
20 pumps ready to be transferred over and our battery backup
21 system ready to be powered up.

22 Q. Just to define what you -- the term you used,
23 the term penstock, what is penstock?

24 A. So the penstock is basically the tunnel or it
25 could be an underground tunnel. It could be an exposed
26 pipe. It's a huge pipe. I don't know if you've ever

1 been up through the Feather River Canyon, but you can
2 see -- that's how they convey the water.

3 What they'll do is take the water out of a --
4 they'll have a dam upstream with an intake, like a big
5 gate, and then the water comes in there. And then, for
6 example, like Cresta's probably got about a five or
7 six-mile penstock that goes above ground and through the
8 mountain and comes out at the powerhouse. And that's
9 how -- that's what they -- the water they use to
10 generate. So it's a pipe probably, I want to say,
11 12 feet around. It's a massive pipe. There's actually
12 two pipes for Cresta. So, yeah.

13 Q. Okay. Now, this may seem stupid to you, but why
14 is the power going to go out in the powerhouse?

15 A. Well, because we use the same -- we use the same
16 power that's running through Pulga basically. That 12 kV
17 power we use as well at our facilities.

18 Q. So the power that runs everything at the
19 powerhouse isn't actually being generated at the
20 powerhouse?

21 A. We actually use -- we generate and supply the
22 line going out. Right? The high voltage line. But we
23 use power that is coming from just local and certain
24 powerhouses, Cresta being one of them, yeah.

25 And we had a huge -- there was a huge 230 outage
26 that we were doing at the time. That is basically what

1 we were working on prior to doing this. And we didn't
2 have any way to back feed any power. So we were pretty
3 much reliant on the -- I think it's the 1101 circuit
4 coming from Pulga. So it just all happened to be that we
5 needed that line.

6 Q. The power running out of your powerhouse, where
7 is that going to?

8 A. That goes out onto the 230 kV structures.

9 Q. Okay. Do you know which line that is?

10 A. I don't not offhand.

11 Q. Okay. All right. Let's move on to Exhibit 222.
12 I will ask you the same question. Do you recognize --

13 A. Yes, Sir.

14 Q. -- Exhibit 222?

15 A. Yep.

16 Q. Did you take this photograph?

17 A. Yes.

18 Q. Okay. And tell us what this photograph shows.

19 A. This is the same. You could tell the flames are
20 getting higher up the mountain, and it's pretty much out
21 of view now. And basically, I think I -- pretty much we
22 were just commenting how it had been -- the fire had been
23 going for quite a while and you don't see any planes or
24 nothing. Because there was a guy that was on the
25 tailrace with us on this deck who used to work for the
26 fire department. And he made the comment that you don't

1 see any planes. And that's one of the reasons why I
2 think on this picture you don't.

3 Q. Okay. And who is the gentleman?

4 A. His name is (WITNESS #3). I think he's going to
5 be doing the same thing I am in the near future.

6 Q. What is your relationship with (WITNESS #3)?

7 A. He was on the crew that was working on the 230
8 upgrade out in the switchyard. And I asked him if he
9 would come in and help me that morning to get set up on
10 the pumps. He's an electrician as well.

11 Q. Okay. Next on to 223. Do you recognize
12 Exhibit 223?

13 A. I do, yep.

14 Q. And what is Exhibit 223?

15 A. That's basically just the same -- you can tell
16 we were watching because you can tell the wind is
17 starting to shift. You can see the upper left hand. We
18 were just basically taking pictures of how it's -- you
19 know, what's going on, basically the winds. And it just
20 was getting, you know, tall and massive. And we were
21 just -- I was just taking pictures.

22 Q. Now, 220 through 222 all seem to be taken from
23 the same vantage point; correct?

24 A. Yes.

25 Okay. Yes, Sir. This is -- this is probably
26 50 feet left of where the last screen was looking

1 straight down the canyon. It's just over. It's in the
2 parking lot.

3 Q. Okay. I was going to ask what this rock
4 concrete structure-looking thing is?

5 A. That is just basically an embankment. There's a
6 parking lot up to the left and the tailrace structure is
7 all down below. I can show you.

8 Q. Go ahead.

9 A. So basically, the end of the powerhouse is here
10 (indicating), the water is coming out like this
11 (indicating), and this (indicating) is just an overflow.

12 The water gets high. You can tell the water has
13 gotten high in the past. See all the debris. So the
14 water actually was raging through here. And so I just --
15 I was here and then I moved over and took the same --
16 basically the same vantage point.

17 Q. And 224?

18 A. I'm standing in the same exact spot. And you
19 can really tell the wind is pushing. I mean, it's
20 starting to really pick up and taking the flames to the
21 left. And you still don't see any planes or anything.
22 We kept expecting --

23 Like, we've seen this in the past. We've been
24 in other powerhouses like Belden or somewhere where
25 they've had fires. And the helicopters will come in and
26 they'll grab a big bucket of water and they'll try to

1 dump. You know. And we just -- I remember taking
2 pictures. And you don't see anybody, any planes
3 anywhere.

4 I was concerned because, you know, if you let a
5 fire burn anywhere for an hour or so, you know, you're
6 probably going to have problems if you don't try to get
7 on top of it. And then when it went over the side --
8 went over the top of the hill eventually. You know what
9 I mean it? I didn't know what was going on. You know,
10 we still had work to do. But we were trying to
11 coordinate getting people out of there if they lived in
12 Paradise, you know, or whatever on the other side. We
13 weren't really sure as a crow flies how close it was to
14 Paradise.

15 Q. Okay. And let's see. Let's move on to 225.

16 A. And that is the same -- I'm standing in the same
17 exact spot and just basically taking a picture of smoke
18 heading basically south.

19 Q. You said -- now, I want to back up a little
20 bit -- that you'd come in early that morning and it was
21 planned; right?

22 A. Yes, Sir.

23 Q. And there was -- you were planning or preparing
24 for a possible shutdown of the power?

25 A. Yeah.

26 Q. And you had to essentially batten down the

1 hatches?

2 A. Yes, Sir.

3 Q. When you went out, you said it was extremely
4 windy.

5 Remember you have to answer out loud so that she
6 can take it down.

7 A. Yeah, yeah, yeah. Sorry.

8 Q. Did the wind conditions ever change?

9 A. No. It didn't seem -- it seemed like it was
10 still windy. Like I said, when I went to work, it was
11 windy. When I came out of the powerhouse three or
12 four hours later, it was still windy.

13 Q. Now, I want to pull something up here for you.
14 And why did that not all of a sudden go off?

15 It's always what happens when I try something
16 new with the computer.

17 A. Oh, yeah.

18 Q. Oh, there we go.

19 All right. You recognize the area depicted up
20 here on the map?

21 A. Yes, Sir, yeah.

22 Q. And you can get up here and look.

23 You have worked up there a long time. You have
24 driven Highway 70?

25 A. Yes.

26 Q. And so I kind of want to get an idea of where

1 you are when you're taking these photographs and what
2 you're looking at.

3 A. Okay. So let's see. This looks like the -- so
4 here (indicating) is Pulga. The turn here (indicating)
5 is the Caltrans yard. So I'm here looking this
6 direction. And I'm assuming the fire is somewhere under
7 in here (indicating) heading over this (indicating)
8 little lip.

9 Q. Okay. I'm going to activate this so you can
10 write on this using your fingers.

11 A. Okay.

12 Q. So when you say "I'm here" --

13 A. I'm at the powerhouse looking that (indicating)
14 direction.

15 Q. Okay.

16 A. Taking photographs.

17 Q. So a red line. You drew a red line on there?

18 A. Meaning I'm looking down the canyon.

19 Q. Okay. Let's put an arrow on there.

20 A. Okay. [Witness complies.]

21 Q. Okay. And is the powerhouse actually --

22 Cresta. Is that a town?

23 A. Cresta is just the name of the powerhouse.

24 Q. Okay. So let's save what you've done there.

25 Now, I want to take a different view here.

26 MS. RICHARDS: It looks like an earth quake.

1 BY MR. NOEL:

2 Q. All right. So I was trying to find the Cresta
3 Powerhouse on here.

4 A. It looks like you're just upstream of it.

5 Q. Just upstream?

6 A. Yeah.

7 Q. So are we still upstream?

8 A. Yes, Sir. You can't miss it once you see it.
9 You're still upstream.

10 Q. Still upstream?

11 A. Yeah.

12 Q. I'm going to exit this and go back here because
13 I thought I tapped right off.

14 Do you see where the powerhouse is on this?

15 A. No, I don't see it. There you go.

16 Q. Is that the powerhouse?

17 A. There it is right there (indicating).

18 Q. Oh, so that's where you were working?

19 A. Yes, Sir.

20 So on the other side looking up the canyon is
21 where I was trying to show you and I drew the arrow. I'm
22 on the other side, you know, looking up here
23 (indicating).

24 Q. Okay.

25 A. Where the railroad tracks are. See the railroad
26 tracks?

1 Q. Yep.

2 It won't let me do it.

3 A. So if you go like this (indicating), you'll see
4 the other vantage point where I was. And it's down in
5 the parking lot. It would be the opposite side.

6 Q. Right on the other side of the building here
7 (indicating)?

8 A. Yes, Sir. Yes, there you go. So here is the
9 wood I was showing you. And the truck was parked here
10 (indicating), and I'm standing right there (indicating)
11 looking up here (indicating).

12 Q. Let's pull our pen out and you can do that.

13 A. So I was standing -- it's not writing.

14 Q. It just popped up.

15 A. Okay. So I am standing here (indicating).

16 Q. You're drawing a red line.

17 A. Where I was standing. And then I am looking at
18 the fire up here (indicating).

19 Q. Okay. And is this the hill you're talking
20 about?

21 A. That is the hill, not this way over here
22 (indicating).

23 Q. So circled over here in the background?

24 A. Yes.

25 Q. That's where you're looking?

26 A. Yes.

1 Q. Okay. So let's save that, and we'll mark that
2 as --

3 A. And I don't know if you want to twist it around
4 or -- you're in control of that. If you want to look,
5 I'll show you where the other vantage point was.

6 MR. NOEL: It will be -- let's go 220-A and B
7 would be the two that I've saved.

8 [Exhibits 220-A and 220-B
9 marked for identification.]

10 BY MR. NOEL:

11 Q. Okay. Let's see now. It's not letting me pull
12 it there. So if you go further downstream --

13 A. Yes.

14 Q. -- and move back?

15 A. Yeah, there you go.

16 Now, unless it's going to let you get over,
17 we're not going to --

18 Q. Yeah, it's not. Let's see if we can exit street
19 view. Okay. Let's see. And there is the powerhouse
20 right in here (indicating)?

21 A. Yes.

22 Q. So we're going to drop the yellow pin on that
23 powerhouse and mark it as the powerhouse, I think.

24 Okay. Can you see on here where --

25 A. So it seems like if you just keep dropping down
26 from where you're at, you might catch it.

1 Q. Okay. All right. We've got the important stuff
2 establishing where you were and what's your vantage
3 point. And I'm going to back this back out. And there
4 we go. And then we can save this one which is great
5 because we make a nice record of what we've been doing
6 here. So we get -- there we go. So we've got the Cresta
7 Powerhouse established.

8 All right. How long did you stay there and
9 watch the fire?

10 A. I was there the rest of the day mostly. I mean,
11 I went down to Poe Dam to take care of an issue they were
12 having there, which is downstream, just downstream. And
13 I was at the powerhouse probably until 6:00 or 7:00 that
14 night. And the fire had already went over. And I
15 couldn't see. You know, you could obviously see smoke,
16 but you didn't see any flames.

17 MR. NOEL: At this point I don't have anything
18 further.

19 Do you have anything?

20 MS. RICHARDS: No.

21 MR. NOEL: Do the jurors have anything for this
22 witness? It looks like we have one.

23 BY MR. NOEL:

24 Q. Mr. (WITNESS #2) -- and this is from one of the
25 jurors -- do you know how old the equipment you maintain
26 and operate is?

1 A. Cresta is like a 1940s powerhouse. I want to
2 say -- I'm assuming '40 to '50s. It's old, old. I don't
3 know exactly, no.

4 Q. It's been around for a while?

5 A. Been around a long time, yeah.

6 Q. And one question after checking my notes one
7 last time that I missed. You said you were in charge of
8 a crew up there that was battening down stuff?

9 A. Yes.

10 Q. Do you remember who all was on your crew besides
11 (WITNESS #3) who was assisting you?

12 A. Yeah, I could probably think of two other -- I
13 think I could think of two other guys.

14 Q. Who would those be?

15 A. One (EMPLOYEE #12) and (WITNESS #4).

16 Q. Okay. Do you know a hydro electrician or did
17 you know a hydro electrician named (WITNESS #14)?

18 A. I did, yeah.

19 Q. Was he on your crew that day?

20 A. Um, I can't remember if he was there or he might
21 have showed up at 7:00 to do our normal work. Because we
22 came in early to get ahead of it. But I can't remember
23 if he was working there or not.

24 MR. NOEL: Okay. That's all I have. Thank you.

25 THE WITNESS: Okay.

26 MR. NOEL: Anything further? Anybody think of

1 anything?

2 Madam Clerk, the question.

3 [Whereupon Mr. Noel gives the grand jury secretary
4 the written questions from the grand jury.]

5 GRAND JURY SECRETARY: Thank you.

6 MR. NOEL: Madam Foreperson will have an
7 admonishment for you.

8 GRAND JURY FOREPERSON: Okay. (WITNESS #2), you
9 are being admonished not to discuss or disclose at any
10 time outside of this jury room the questions that have
11 been asked of you or your answers until authorized by the
12 grand jury or the Court. A violation of these
13 instructions on your part may be the basis for a charge
14 against you of contempt of court. This does not preclude
15 you from discussing your legal rights with your own
16 attorney.

17 (WITNESS #2), what I have just said is a warning
18 not to discuss the case with anyone accept the Court,
19 your lawyer, or the district attorney.

20 Do you understand?

21 THE WITNESS: Yes, Ma'am.

22 GRAND JURY FOREPERSON: Thank you.

23 THE WITNESS: Thank you.

24 MR. NOEL: Thank you, Sir. You're done. Thank
25 you for being here.

26 [The witness exits the courtroom.]

1 MR. NOEL: And that's all we have for this
2 morning. So I tried to stretch it out so you didn't have
3 that long of a lunch. But we can be here at -- back at
4 1 o'clock.

5 [Whereupon the luncheon recess is
6 taken from 11:50 a.m. until 1:03 p.m.]
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1 JUNE 18, 2019; 1:03 p.m.

2 (Confidential Grand Jury Hearing Proceedings)

3
4 MR. NOEL: Yes, all jurors are present.

5
6 (DISCUSSION OMITTED.)

7
8 GRAND JURY FOREPERSON: (WITNESS #19), I need to
9 swear you in. So raise your right hand, please.

10 Okay. (WITNESS #19), do you solemnly swear that
11 the evidence you shall give in this matter pending before
12 the grand jury shall be the truth, the whole truth, and
13 nothing but the truth?

14 THE WITNESS: I do.

15 GRAND JURY FOREPERSON: Thank you. Have a seat,
16 please.

17 **EXAMINATION**

18 BY MR. FOGG:

19 Q. Good afternoon, (WITNESS #19). If you could
20 state your full name and spell your last name for the
21 record, please.

22 A. Full name is (WITNESS #19), last name is
23 [Redacted spelling].

24 Q. Now, before you begin I just want to say you're
25 represented by counsel. If you'd like to speak to your
26 attorney, the grand jury will give you reasonable breaks

1 to do so. And that will be determined by the grand jury.

2 A. Okay.

3 Q. (WITNESS #19), where do you work?

4 A. Pacific Gas & Electric.

5 Q. When did you start working for Pacific Gas &
6 Electric?

7 A. 2003.

8 Q. And when you started with them, what job did you
9 have?

10 A. I started as an apprentice lineman.

11 Q. And what's an apprentice lineman?

12 A. Somebody that basically back then started off
13 the street with no knowledge of power lines or anything
14 else.

15 Q. What was your next job for PG&E?

16 A. Journeyman lineman.

17 Q. What's a journeyman lineman?

18 A. Once you've completed your apprenticeship, you
19 have enough hours and things to work on your own.

20 Q. And when you became a journeyman lineman, where
21 were you working for PG&E?

22 A. Oroville, Chico, and in their general
23 construction department.

24 Q. Where did you work in PG&E after that?

25 A. 2013 I took a job at Table Mountain
26 Transmission.

1 Q. What job did you take at Table Mountain
2 Transmission?

3 A. Transmission lineman.

4 Q. What job did you take next in PG&E?

5 A. The electric crew foreman at Table Mountain
6 Transmission.

7 Q. And when did you take that job?

8 A. 2017.

9 Q. And have you taken another job in PG&E since
10 then?

11 A. Yes. I went back to distribution here in
12 Oroville.

13 Q. When was that?

14 A. May; about four weeks ago.

15 Q. So as a lineman at Table Mountain Transmission,
16 what were your job responsibilities?

17 A. Perform insulator change-outs, any of the
18 maintenance on the transmission lines that was deemed
19 necessary.

20 Q. And now you became the -- was it the electric
21 crew foreperson?

22 A. Yes.

23 Q. When you became the foreperson, what were your
24 job responsibilities then?

25 A. You kind of watch the linemen, make sure all the
26 procedures are followed as far as rules and grounding

1 rules and things like that.

2 Q. Okay. I want to follow up something you said
3 about insulator change-outs. Behind you on the screen
4 would be Grand Jury Exhibit 188. Could you tell the
5 grand jury, please, what is depicted in Exhibit 188.

6 A. It appears to be one of the arms on the
7 transposition towers that holds the jumper string.

8 Q. What's a jumper string?

9 A. It would be the insulator string hanging down
10 and the jumper comes down and transitions around the
11 tower to the other side.

12 Q. And what's hanging the string on the steel in
13 this image?

14 A. That would be a C-hook.

15 Q. A minute ago you mentioned insulator change-out.
16 What's an insulator change-out?

17 A. Insulator change-out would be if we received a
18 maintenance tag with damage insulators, flash insulators.
19 Any problems they found we would come out and change that
20 string of insulators C-hook included.

21 Q. Okay. I want to walk through in some detail
22 about how you go about making that change. And I want
23 you to see Exhibit 188 as an example describing how you
24 would use it.

25 So let's say you got the maintenance
26 notification you need to change out an insulator string.

1 What would you do next?

2 A. We would have a tailboard in the morning before
3 we went out to the tower whether we flew there or drove
4 there, get everything grounded. We would hang our
5 rigging, take tension on the phase, slack the bells.

6 Q. Okay. Let's break that up a little bit. What's
7 the rigging?

8 THE COURT REPORTER: I'm sorry. Can you pull
9 your microphone a little closer, please. Thank you.

10 BY MR. FOGG:

11 Q. What is the rigging?

12 A. The rigging depending -- like here it would
13 usually be a light hoist and chain, either a sling or
14 boxing glove is what we call them, and the conductor.

15 Q. Is that a way for someone to hang off the tower?

16 A. No. That just holds the jumper or conductor in
17 place while you're changing the insulators.

18 Q. Okay. So you said then you'd hang the rigging
19 in place. What would you do next?

20 A. Usually hang a ladder so you have access down to
21 the bells. You would un-ding the bells, either use a
22 hand line or helicopter to take slack into the bells, and
23 un-ding the C-hook.

24 Q. Okay. What does it mean to un-ding the line?

25 A. It would be to -- there's a cotter pin in the
26 top. You would knock that out and then undue the bells.

1 Q. So you'd separate the line from the bells at the
2 bottom?

3 A. And then the top.

4 Q. Okay. And you do that by removing a cotter pin?

5 A. Yes.

6 Q. So when the insulator bells were then removed,
7 where is the C-hook?

8 A. The C-hook stays on the steel right there, but
9 you have to hold it because they won't stay in by
10 themselves.

11 Q. Okay. When you replace the insulator string,
12 would you also replace the C-hook?

13 A. Yes.

14 Q. Why?

15 A. Just standard practice.

16 Q. Is that standard practice that only -- is that a
17 practice that PG&E committed to policy in writing that you
18 know of or is it something you're taught on the job?

19 A. Not that I know of. It was more on-the-job
20 training.

21 Q. Were there ever times that you would not replace
22 the C-hook when you were replacing the insulator string?

23 A. No.

24 Q. Besides when you took the hook out of the --
25 when you removed the hook for replacing the insulator
26 string, were there any other times in your job

1 responsibilities when you'd remove the C-hook from the
2 eye on a 115 kV line?

3 A. Not unless we were changing insulators.

4 Q. When you had to change insulators, would that
5 require a PG&E crewman to climb up on top of the tower?

6 A. Yes.

7 Q. Was that work you've done? Climbed on the
8 tower?

9 A. Yes.

10 Q. When you climbed on the tower, let's say, to
11 replace an insulator string, would you inspect other
12 pieces on the tower while you were up there?

13 A. We'd took a general overall look at the tower on
14 the way up looking for bent or missing steel, anything
15 that, you know, could have been damaged prior to us
16 starting our rigging.

17 Q. Would you be looking at -- when you were doing
18 that, would you look at the other attachment points?

19 A. Somewhat. Give them a quick glance and make
20 sure nothing looked bad.

21 Q. Now, the quick look around when you're on the
22 tower, is that something that is taught to you by PG&E in
23 your training?

24 A. Yes.

25 Q. Was that formal training or is it more
26 on-the-job training?

1 A. During our apprenticeship.

2 Q. Okay.

3 A. And also on-the-job training.

4 Q. If you look at -- looking directly back to
5 Exhibit 188, do you see the space between the space that
6 is left open in the eye where the C-hook is hanging?

7 A. Yes.

8 Q. Does that amount of space tell you anything
9 about the condition of the C-hook?

10 A. I'd say judging by that space there it could be
11 possible wear.

12 Q. I want to direct you now to Exhibit 191. Can
13 you tell me what's depicted in Exhibit 191?

14 A. I have an insulator, a C-hook, and then a
15 working eye in the steel.

16 Q. And in this image does the space within the eye
17 that is not taken up by the steel, does that space tell
18 you anything about the condition of the C-hook?

19 A. Possibly the C-hook is worn.

20 Q. If you saw that -- if you saw an attachment
21 point in this condition when you're on the tower for
22 another purpose, would you report that?

23 A. Yes.

24 Q. Would you -- based on your experience and
25 working with your colleagues, would you expect them to
26 report that as well?

1 A. Yes.

2 Q. Now, I want to direct you to Exhibit 178. Can
3 you describe for us, please, what is depicted in
4 Exhibit 178.

5 A. It's a C-hook.

6 Q. Is there anything unusual in that C-hook?

7 A. It appears to have quite a bit of wear.

8 Q. In your time working for PG&E have you ever seen
9 a C-hook with an equivalent amount of wear on it as what
10 is in Exhibit 178?

11 A. Not prior to the Camp Fire.

12 Q. If you had seen a C-hook with that type of wear
13 before the Camp Fire, what would you have done with it?

14 A. More than likely reported it to my supervisor.

15 Q. And based on your experience working with your
16 colleagues at Table Mountain, would you expect them to
17 tell their supervisor if they found a similarly worn
18 C-hook?

19 A. Yes.

20 Q. In your time with PG&E have you personally seen
21 any C-hooks that have broken? This is before the Camp
22 Fire.

23 A. Not that I can recall.

24 Q. In your time at PG&E have you ever seen
25 components -- strike that.

26 Have you ever seen attachment points on a

1 transmission tower that appeared to have been worn down
2 by the wind?

3 A. Yes. There was a time; a re-conductor project
4 down towards Rio Vista.

5 Q. Could you tell us what you saw regarding wind
6 wear during that project.

7 A. There appeared to be some wearing on the working
8 eyes. The C-hook wasn't worn very bad, but the eye was
9 worn quite a bit.

10 Q. In your time with PG&E have you ever received
11 formal training from PG&E about the affect of wind on
12 transmission towers?

13 A. No.

14 Q. All right. Have you had -- have you received
15 informal training or on-the-job training about the affect
16 of wind on transmission towers?

17 A. On the job, yes.

18 Q. Could you tell me about that, please.

19 A. A lot of the older guys that climbed a lot of
20 the towers before we had helicopters would stress looking
21 at the steel. Sometimes they would vibrate and loosen
22 from the wind.

23 Q. And that was from older troublemen?

24 A. Older linemen.

25 Q. Older linemen.

26 You mentioned on the re-conductoring project you

1 saw that wind wear. Do you remember approximately when
2 that project occurred?

3 A. I'd just be guessing, but I'm going to guess
4 around '09 or '10.

5 Q. And so we don't want you guessing. But it
6 sounds like it's a while ago.

7 A. Quite a while ago.

8 Q. Best of your knowledge it was around 2009 or
9 2010?

10 A. Yes.

11 Q. I want to shift now to some questions about life
12 spans of certain components in the transmission tower.

13 If you wanted to determine the age of a
14 transmission line tower, how would you find out?

15 A. I'd have to start by trying to contact
16 engineering.

17 Q. How about for a specific insulator string?

18 A. Probably engineering also.

19 Q. And how about for the age of a specific C-hook?

20 A. Engineering.

21 Q. Your time at Table Mountain did you -- have
22 you --

23 Are you familiar with the Caribou-Palermo line?

24 A. Yes.

25 Q. Do you know approximately how old that line is?

26 A. I think somebody -- again, I'm not positive, but

1 1918 or something.

2 Q. And that's what someone would have told you?

3 A. Yeah.

4 MR. FOGG: So just to direct or remind everyone
5 what we've been saying about hearsay, you're not to
6 consider that hearsay for its truth. So don't consider
7 it the truth when he says 1918, but you can consider it
8 for other reasons such as what he did in response to
9 hearing that information.

10 BY MR. FOGG:

11 Q. So you've heard that the Caribou-Palermo line is
12 older. Did that change how you worked on the line?

13 A. Yes. We were always told by the old linemen to
14 watch your rigging, make sure you weren't overstressing
15 the arm. Things like that.

16 Q. So when you would work on the line, you'd be
17 more careful with the line because of its age?

18 A. Yes.

19 MR. FOGG: And, (WITNESS #19), give me one
20 moment with my colleagues.

21 [Conferring off the record.]

22 BY MR. FOGG:

23 Q. (WITNESS #19), do you know what a three-bolt
24 connector is?

25 A. Yes.

26 Q. What's a three-bolt connector?

1 A. It's commonly referred to as a PG; parallel
2 groove clamp.

3 Q. And how -- would it be necessary to climb a
4 tower to replace a three-bolt connector?

5 A. Either climb it or use a helicopter for access.

6 Q. Do you recall if three-bolt connectors were
7 placed on the Caribou-Palermo line in the past ten years?

8 A. Yes. There was a project approximately three,
9 four, five years ago to replace them.

10 Q. Can you tell me more about that project, please.

11 A. It was done by general construction so . . .

12 Q. So it wasn't done by --

13 A. It wasn't done by Table Mountain.

14 Q. If you were on a tower placing a three-bolt
15 connector, would that be a time when you might look at
16 other things in the tower to see what shape they're in?

17 A. Possibly.

18 MR. FOGG: (WITNESS #19), I don't have any other
19 questions for you, but I need to ask the grand jurors
20 that question.

21 Do any of the grand jurors have questions for
22 (WITNESS #19)? We have one.

23 [Conferring off the record.]

24 BY MR. FOGG:

25 Q. (WITNESS #19), a few questions from the grand
26 jurors. Have you had any formal training regarding

1 standards for replacing C-hooks?

2 A. No.

3 Q. Have you had any formal training about how worn
4 a C-hook can get before it needs to be replaced?

5 A. No. Whenever we replace insulators, the C-hook
6 is replaced.

7 Q. I showed you some images earlier of -- we talked
8 about the amount of daylight visible through an eye. Did
9 you ever receive any training about when to replace a
10 C-hook based on how worn it may appear from the visual
11 inspection of it?

12 A. No.

13 MR. FOGG: (WITNESS #19), I don't have any
14 further questions. Do any of the grand jurors?
15 Appearing not. We have no further questions for you,
16 (WITNESS #19). Madam Foreperson will have an
17 admonishment for you though before you go.

18 GRAND JURY FOREPERSON: (WITNESS #19), you are
19 admonished not to discuss or disclose at any time out of
20 this jury room the questions that have been asked of you
21 or your answers until authorized by the grand jury or the
22 Court. A violation of these instructions on your part
23 may be the basis for a charge against you of contempt of
24 court. This does not preclude you from discussing your
25 legal rights with your own attorney.

26 (WITNESS #19), what I have just said is a

1 warning not to discuss this case with anyone except the
2 Court, your lawyer, or the district attorney.

3 Do you understand?

4 THE WITNESS: Yes.

5 GRAND JURY FOREPERSON: Okay. Thank you.

6 THE WITNESS: Thanks.

7 MR. FOGG: So, Madam Foreperson, we told our
8 next witness to be here at 1:30. We're running a few
9 minutes ahead schedule. I will go out and check to see
10 if that witness is available.

11 GRAND JURY FOREPERSON: Okay. Thank you.

12 [Pause in proceedings.]

13 MR. FOGG: Madam Foreperson, we'd called
14 (WITNESS #11), to the stand.

15 (WITNESS #11), if you could for the record
16 please give your full name and spell your last name,
17 please.

18 THE WITNESS: Yes. It's (WITNESS #11),
19 [Redacted spelling.]

20 BY MR. FOGG:

21 Q. And, (WITNESS #11), I know you are represented
22 by an attorney. If you do need to speak to your
23 attorney, please tell us. The grand jury will give you a
24 reasonable number of breaks to speak with your attorney
25 as determined by the grand jury.

26 A. Okay.

Q. Likewise, if you need a break for the restroom or anything like that, please say so.

GRAND JURY FOREPERSON: (WITNESS #11).

MR. NOEL: You need to swear the witness.

MR. FOGG: I'm sorry. I blew right through that. I apologize, Madam Foreperson.

GRAND JURY FOREPERSON: That's okay.

Would you please stand and raise your right hand.

(WITNESS #11), do you solemnly swear that the evidence you shall give in this matter pending before the grand jury shall be the truth, the whole truth, and nothing but the truth so help you God?

THE WITNESS: I do.

GRAND JURY FOREPERSON: Thank you. Have a seat.

MR. FOGG: Madam Foreperson, I apologize.

EXAMINATION

BY MR. FOGG:

Q. (WITNESS #11), now that you're sworn, has your previous answer about your name and spelling the last name changed?

A. (WITNESS #11).

Q. (WITNESS #11), where do you work?

A. PG&E.

Q. And when did you start working for PG&E?

A. Thirty-four years ago.

1 Q. And what job did you have when you started with
2 PG&E?

3 A. Started out as a groundman.

4 Q. What is a groundman?

5 A. A laborer on the labor crew basically digging
6 holes, doing the beginning classification work.

7 Q. And what job did you take next with PG&E?

8 A. I became an apprentice.

9 Q. An apprentice?

10 A. An apprentice lineman.

11 Q. Okay. And did you eventually become a
12 journeyman lineman?

13 A. Absolutely.

14 Q. When did you become a journeyman lineman?

15 A. Four years after that. Sorry, Guys. I don't
16 even know the date I started.

17 Q. Right.

18 A. Thirty-four years ago.

19 Q. When you first became a journeyman lineman,
20 where were you working at PG&E?

21 A. Northern California.

22 Q. What job responsibilities did you have when you
23 first started as a journeyman?

24 A. Everything from distribution through
25 transmission.

26 Q. At some point in time with PG&E did you start to

1 work specifically on transmission lines?

2 A. Yes.

3 Q. When was that?

4 A. About 16 years ago.

5 Q. And was that still as a journeyman lineman?

6 A. Yes.

7 Q. And where was that?

8 A. Table Mountain Substation.

9 Q. Did you take a later job in PG&E after being a
10 journeyman lineman at Table Mountain?

11 A. Yes.

12 Q. What job was that?

13 A. Transmission troubleman.

14 Q. Okay. What is the difference between linemen
15 and troublemen?

16 A. The lineman you're doing maintenance on the
17 crew, still doing a lot of the line work to whereas a
18 troubleman you're out patrolling the lines, switching the
19 lines, and still working with the crew when available.

20 Q. And how long were you a troubleman at Table --
21 strike that.

22 How long were you a lineman at Table Mountain
23 before you became a troubleman?

24 A. Five years, I think. Four or five years.

25 Q. Are you still a troubleman at Table Mountain
26 today?

1 A. No.

2 Q. What job do you have now at PG&E?

3 A. Right now I currently -- starting about two
4 months ago I work for helicopter operations at PG&E.

5 Q. So overall how long approximately were you a
6 troubleman for PG&E at Table Mountain?

7 A. Probably between temp and actual job ten years.

8 Q. Okay. Did you receive any specific -- well,
9 strike that.

10 Once you became a troubleman, did you receive
11 any additional training from PG&E?

12 A. Mainly for switching.

13 Q. What's switching?

14 A. For shutting off certain sections of line to be
15 worked on or storm damage, going out, getting called and
16 clearing the line so that the crew could ground and go to
17 work.

18 Q. When you -- so we're kind of working in reverse
19 chronology then. When you first came to Table Mountain
20 as a lineman, did you receive any additional training at
21 that point?

22 A. Not much. It's pretty much transmission
23 lineman, which I was a decent lineman at the
24 transmission.

25 Q. And then when you're -- during your
26 apprenticeship did you receive training in transmission

1 lines?

2 A. Yeah.

3 Q. Do troubleshooters inspect transmission lines?

4 A. Yes.

5 Q. What are the different types of -- well, is
6 there a difference between routine and non-routine
7 inspections?

8 A. Yes, very much so.

9 Q. What's the difference?

10 A. A routine patrol is a mandated patrol carried
11 out. A non-routine is reflected from a momentary outage
12 or a lockout outage or there's other variations. But
13 that was -- you know, a lightning storm, the line
14 relays, and then we go out and inspect.

15 Q. What are the different types of routine
16 inspections?

17 A. There's a detailed ground inspection and an air
18 inspection. Air patrol.

19 Q. So let's talk about air patrols. What is an
20 air patrol?

21 A. An air patrol is flying a circuit at whatever
22 the patrolman and the pilot is comfortable at at a
23 certain height and a certain speed looking for -- an air
24 patrol is more looking for something hanging. You're not
25 stopping at every tower and circling it and everything.
26 You're flying and inspecting the line and looking at the

1 tower or poles as you're flying.

2 Q. So for now with these questions let's limit the
3 discussion to towers and not poles.

4 A. Okay.

5 Q. When you say you're looking for something
6 hanging on a line or tower, what do you mean?

7 A. You're looking for any abnormality from
8 insulators that are flash, from a lightening storm or
9 whatever, busted insulators from gunshot, pieces of steel
10 that could be unbolted and hanging. If the insulators
11 are cocked a little out of place, then I'll ask them to
12 stop, inspect it with binoculars, pictures if needed, and
13 create a notification for repair.

14 Q. Okay. During an air patrol how close to the
15 tower does the helicopter get?

16 A. Depending on the pilot, their comfort, and
17 weather conditions you can get pretty close. You know,
18 you can be up to 20, 30 yards. And then some of them --
19 some pilots don't feel comfortable at all doing that. So
20 they're a little bit further away at a safer distance.
21 And at that point then it becomes my responsibility to
22 say "Let's slow down a little so I can get a better
23 look."

24 Q. What equipment would you use to see the line
25 during an air patrol?

26 A. I'm sorry. I didn't hear at all.

1 Q. What type of equipment would you use to help you
2 see the line during an air patrol?

3 A. We have binoculars. Mine happen to be Gyro
4 binoculars where you can hit a button to keep from
5 vibrating. It will actually slow it down to where you're
6 able to see a lot better. A camera and notepad and
7 paper. The less you can have in there the better.

8 Q. How often would you do a routine air patrol on a
9 transmission line?

10 A. Depending on the circuit, every year on a steel.
11 Every year you're going to do an air. Every five years
12 you're going to do a detail. We have a 500,000 kV line
13 that every third year you do a detailed.

14 Q. But for a 115 kV line it would be once every
15 year an air patrol and once every five years a detailed
16 ground inspection?

17 A. Yes. If it's mostly steel, you're going to do
18 that.

19 Q. Just on a normal air patrol how much time
20 approximately would you spend looking at each tower?

21 A. You're looking at it going by it 20, 30 miles an
22 hour. And if you see something that you feel needs to be
23 looked at, then you stop, ask the pilot to circle around,
24 and then you inspect at that point in more detail.

25 Q. So assuming that if you're flying along and not
26 stopping, about how much time would you spend looking at

1 each tower?

2 A. A minute. I mean, you're looking - you're
3 looking at the conductor as you're flying and then you're
4 looking at the tower trying to look at as much of it as
5 you can from the ground up and then as you go by and then
6 back to looking again.

7 Q. How long does it take to complete an air patrol
8 on a normal transmission line?

9 A. Depends. Some of them are hundreds and hundreds
10 of structures and some of them are very few. So at
11 20 miles an hour with 100 towers, you know, it doesn't
12 take very long.

13 Fuel is always a problem. You either have a
14 fuel truck or you've got to go get fuel. So you're
15 pulling off to get fuel. Or weather conditions. So
16 there's many variables.

17 Q. How would the weather condition affect the speed
18 of air patrol?

19 A. In high winds the helicopter's all over the
20 place. You can't hardly -- at some point you pull off.
21 Sometimes you have a -- if you have -- I had certain
22 lines of my own in the north so I knew how long it
23 usually would take me. But sometimes if, say, you're
24 flying from south to north and the wind's blowing the
25 other way and you've got to revert and go from north to
26 south, you've got to completely change your strategy with

1 fuel and everything else. So there's so many variables
2 for different lines. And different troubleshooters do things
3 differently, too.

4 Q. On a day when you did air patrols, how long
5 would you usually spend in the helicopter that day?

6 A. I would try and -- four hours is the most I
7 would ever be in a helicopter, if possible. There was
8 times when we did go more especially in an IR patrol --
9 infrared -- where you're looking at a whole different --
10 different way of patrolling.

11 Q. Let's set the IR inspection aside for a second
12 so I can focus on the routine air. How often were you in
13 the helicopter for more than four hours?

14 A. Not very often. Four hours is enough.

15 Q. And why do you say four hours is enough?

16 A. Because your head hurts from the headset, your
17 rear hurts from the seat. It's -- you start -- your
18 patrol starts tailing off because you can't concentrate
19 because of the irritation of everything that is going on
20 around you.

21 Q. During your patrols in your experience what are
22 the most common problems you would find on a 115 kV line?

23 A. Usually flash insulators from lightening or
24 gunshot insulators. Sometimes you will see a piece of
25 steel that might have come unbolted and is hanging. But
26 for the most part you're finding problems on the

1 insulators themselves. Sometimes you'll find a piece of
2 the conductor that may have been stricken by lightening
3 or shot and a piece of the strand of conductors is
4 dangling. So, yeah, mainly stuff like that.

5 Q. What are the most serious problems you saw on
6 transmission lines during air patrols? And by serious I
7 mean likely to cause damage to property or a threat to
8 someone's life.

9 A. It would be an abundance of a string of
10 insulators broke or flashed or, say, all three phases
11 have taken a hit so they're all damaged. That's some of
12 the ones that the line is still energized.

13 Now, I have gone out, of course, when the line
14 is locked out and the trees have gone through it or the
15 snow has taken it out or the line is down, even collapsed
16 towers and poles.

17 Q. And this would be for -- when you talk about
18 trees and the line or snow or collapsing towers, those
19 would be non-routine patrol?

20 A. Yes. Storm damage.

21 Q. Let's circle back a little bit. In your time as
22 a troubleman has the frequency of the routine air patrols
23 and the line changed?

24 A. No, not that I noticed anyway.

25 Q. Has the amount of time spent on each tower
26 during air patrol changed?

1 A. No.

2 Q. How about the equipment you've used?

3 A. I had pretty much the same equipment. Cameras.
4 I would get new cameras. I think I might have gone
5 through one pair of binoculars but pretty much the same.

6 Q. Does the term "cold-end attachment point" mean
7 anything to you?

8 A. Uh-huh.

9 Q. What does that mean?

10 A. The cold end is the steel end, the hot end is
11 where the conductor is carrying the electric.

12 Q. So what would be the cold-end attachment point
13 on an insulator string? What does that phrase describe?

14 A. It could be a dead-end eye, a suspension eye,
15 dead-end plate, suspension plate basically.

16 Q. So is it fair to say that the place where the
17 insulator is hanging from the tower on the hook is the
18 cold-end attachment point?

19 A. Yes.

20 Q. On a routine air patrol how well could you see
21 cold-end attachment points?

22 A. Not very well. Something would have to trigger
23 it. I would have to see insulators cocked or -- well,
24 even a flash bell I would get my binoculars out and look
25 at it and try to see how much are flashed or broke. And
26 at that point you might stumble upon the attachment

1 point. And it would have to be really, really evident to
2 see it. That's on air patrol.

3 Q. So if you're flying an air patrol and an
4 insulator or a suspension insulator string didn't have
5 any flash bells or anything to draw your attention, would
6 you still examine the attachment points with your
7 binoculars?

8 A. No.

9 Q. I want to shift over now to detailed ground
10 inspections. How are those different from -- let me
11 rephrase that. What is a ground inspection?

12 A. A ground inspection is you go to every structure
13 from the ground and you're looking at everything from the
14 footings, the steel all the way up to everything that you
15 can see on a structure.

16 And at that point same thing. If you see
17 something that you might want to further -- to further,
18 you know, the trail, then you get the binoculars out and
19 examine something that may seem abnormal.

20 Q. How close to the tower would you get during a
21 detailed ground inspection?

22 A. To it. You're looking at every footing now.
23 You're looking at every footing. And it may sound crazy,
24 but it's kind of nice to get right into the middle of a
25 tower and look up to see if anything, you know, is
26 abnormal.

1 Q. And you testified earlier that those were done
2 every five years?

3 A. I believe so.

4 Q. What equipment would you use during a ground
5 inspection?

6 A. It depends. I mean, your trouble truck is
7 completely equipped with everything you need to actually
8 climb the tower, if safe, to get a better look to a
9 razor, a utility vehicle to go out through where you
10 can't get to with your truck.

11 Q. What's a trouble truck?

12 A. It's a truck with everything that you need to
13 perform a patrol and switch conductor lines out and
14 everything.

15 Q. On average how much time would you spend per
16 transmission tower during a ground inspection of a 115 kV
17 line?

18 A. You could -- if you got to the tower and are
19 able to see it, all the footings and everything, you
20 could be done in five minutes. If you start seeing
21 things, that's when you start breaking things out. And
22 it's done a little differently now that I -- I have not
23 done it in a few years. They're using iPads. So they're
24 actually taking pictures with the iPad and creating the
25 notification on site.

26 Q. Let's go into that a little bit. Before the

1 iPads, what would you do during a ground inspection to
2 record your findings?

3 A. I actually used my patrol and I -- a camera
4 taking pictures, writing notes, and then get back to the
5 office with the computer and fill it out in there.

6 Q. And when you say you used your patrol, what do
7 you mean with you say "patrol"?

8 A. When you have a patrol, the clerical support
9 prints it out for you so you've got everything that you
10 need. It will tell you if there's any prior problems on
11 each structure for that circuit. And you just -- it
12 helps you keep track as you're going.

13 Q. And what are the most -- in your time doing
14 ground patrols on 115 kV lines, what types of problems
15 did you see most commonly?

16 A. Bent steel. A lot of mine were -- my lines were
17 more up north. So it's a little different than some in
18 the valley or some up another. A rock may roll down the
19 hill, hit one of the legs, and bend it down low, footings
20 may be cracked.

21 I've seen some where lightening will actually
22 strike insulators and split the footing in half. But for
23 the most part, you're finding busted insulators, maybe
24 high signs missing.

25 Q. What's a high sign?

26 A. It's a high voltage sign that marks one on each

1 side of each structure for the public safety to realize
2 that you're climbing a structure that is carrying voltage
3 or electricity.

4 Q. So what is the most -- what were the most
5 serious types of problems you would see during ground
6 inspections?

7 A. There again a string of busted insulators.
8 Sometimes the ground with all the water has shifted and
9 the tower is cocked. Guy wires, which help support, may
10 be slacked and a pole or tower laying over a little.

11 Q. In your time as a troubleman did the frequency
12 of the ground inspections change?

13 A. No.

14 Q. Did the equipment you used during the ground
15 inspections change?

16 A. Not really. We went from Quad Runners to
17 utility vehicles. But it did change in the fact that at
18 some point it became 100 percent fall arrest. In the old
19 days I could throw on my harness and if I thought there
20 was a flashed insulator or a busted footing that made me
21 think that there is something wrong up there, in the
22 older days I could just go up the tower, belt off, and
23 observe.

24 Well, when they came out with 100 percent fall
25 arrest, then you had to as you're climbing be hooked to
26 the tower all the way up. So it changed even the way I

1 did things. It wasn't as easy for me to go out and say
2 "Hey, I ran up and I was able to take pictures. This is
3 what I found." It became "Pretty sure this is a problem.
4 I'm going to have the crew inspect."

5 Q. How much -- how much harder did it become to
6 climb once it became 100 percent fall arrest?

7 A. A lot. Very, very cumbersome. For one thing
8 the utility vehicle, the Razor that I used, I couldn't
9 haul a lot of this stuff that it would take for me to
10 climb that tower.

11 Q. So once it became harder to do climbing
12 inspections, as far as ground inspections were further
13 climbing inspections done?

14 A. Yes. For me -- yes, but very, very few times
15 did I run up a tower too. I mean, that was just rare
16 cases when I thought it was going to be very beneficial
17 for me to do it rather than the crew knowing that "Yep, I
18 found a problem."

19 So it's not -- and not all troublemen even when
20 it wasn't 100 percent were apt to run up a tower. So
21 different troublemen do it in different ways. You don't
22 have to do that. That was something that I had in my
23 head and my mind that I thought was beneficial.

24 Q. Were there written policies that you're aware of
25 directing when a troubleman should climb a tower during a
26 detailed ground inspection?

1 A. Yeah. There again, it's probably in the ETPM
2 Manual, the Electric Transmission Maintenance Manuel.
3 It's probably described, but I kind of did things my way
4 when it came to -- I think I did my job very well. So I
5 thought about myself more than what other people do.

6 Q. So during the detailed ground inspection, could
7 you see the cold-end attachment points on an insulator
8 string?

9 A. Yeah. But it almost needed -- something needed
10 to trigger it for me to look at it, scrutinize it. Very,
11 very seldom do you have that kind of a problem. So it
12 would have taken something for me to -- with my
13 binoculars or one of the old days climbing up and seeing
14 something for me to see it. It's not something that
15 fails.

16 Q. And if you were standing at the base of a
17 transmission tower during the detailed ground inspection,
18 would you generally be able to see the cold-end
19 attachment point on a suspension plate?

20 A. If you got back to a point with your binoculars,
21 absolutely.

22 Q. So I want to go to IR patrols now. You
23 mentioned those earlier. What is an IR patrol?

24 A. An infrared patrol is where they install a
25 camera on the helicopter that is looking for something
26 hot that's not supposed to be hot on the hot end of the

1 line like connectors, sleeves. And you're flying it at a
2 very -- a lot higher and very fast. The cameras are very
3 high tech. So you can fly at 60 knots, 60 miles an hour
4 at hundreds of feet rather than getting down within 50
5 feet of the line and doing an air patrol.

6 Q. How frequently were IR patrols done?

7 A. Every year on certain lines. They rotate the
8 lines or the critical lines.

9 Q. Which line -- do you know what criteria they
10 used to pick which lines got IR inspections?

11 A. Not really. The critical tie-lines from state
12 to state or 500 line stuff that they're in every year
13 usually. And then I'm not sure what triggers it. Like I
14 could sit here and tell you, but I'm not sure.

15 Q. Do you know who was in charge of picking which
16 lines got IR patrols?

17 A. I'm thinking engineering and then the local
18 supervisor had some control over a line that he might
19 think should be done.

20 Q. Would an IR patrol identify a -- let me strike
21 that.

22 Would an IR patrol be capable of identifying
23 where the cold-end attachment point of an insulator goes?

24 A. No.

25 Q. Why not?

26 A. An IR patrol is for the hot end. It's looking

1 for heat, something that's creating heat on a line, not
2 the cold end.

3 Q. Okay. One follow-up question just to go back to
4 detailed ground inspections. If you had learned that
5 there were C-hook problems or cold-end attachment point
6 problems on other lines, would you have been able to
7 examine those cold-end attachment points during a
8 detailed ground inspection?

9 A. You could most definitely scrutinize it more and
10 possibly spot something. But, yeah, it would take
11 something to trigger it.

12 Q. In your time at PG&E were you ever given any
13 written notice or bulletin about problems with cold-end
14 attachment points?

15 A. Not that I remember.

16 Q. Do you remember being told by any other PG&E
17 employees about problems on cold-end attachment points?

18 A. No.

19 Q. So I want to talk about climbing patrols as the
20 last routine patrol. Let's talk about that. To your
21 knowledge were there routine climbing inspections of
22 115 kV lines?

23 A. Not that I know of. I know that we have a tower
24 department, but how they determine what and when to climb
25 I don't know.

26 Q. So what is the tower department?

1 A. The tower department is -- they basically build
2 the steel and work on the steel. We work on the lines,
3 on the steel. We still would do some minor work on a
4 tower, but for the most part if I found something, I
5 created a notification for the tower department to come
6 and repair it.

7 Q. Okay. Who -- between the tower department and
8 the Table Mountain -- the troublemen at Table Mountain,
9 whose responsibility was it to inspect the cold-end
10 attachment points on insulators?

11 A. I guess it would be all of us. Like I say, for
12 me coming up as a lineman changing insulators, repairing,
13 and everything else, very seldom did you see a lot of
14 huge issues with that attachment point.

15 Tower -- doing a climbing inspection probably
16 would be looking at the suspension plate or the dead-end
17 plate more so than I would. But normally, for me as a
18 lineman changing everything out you didn't see a whole
19 lot of problems there.

20 Q. So whose responsibility would it be within PG&E
21 to inspect those attachment points?

22 A. Like I say, probably all of us. But I think it
23 would take something -- an event to trigger it. And then
24 like you said earlier, "Hey, we're starting to have these
25 issues with this. We probably ought to start taking a
26 peek."

1 Q. So you mentioned non-routine patrols earlier.

2 A. Uh-huh.

3 Q. What are non-routine patrols or inspections?

4 A. The non-routine is usually triggered by
5 lightening, a storm to where the line either goes into a
6 momentary and then is energized back up or it is locked
7 out.

8 So you either go do a ground inspection if it's
9 easy access or a helicopter. Normally, a helicopter is
10 the best because if it's lightening, the flash or
11 whatever on the insulator is going to be on the top.

12 Q. So after you received notification of either a
13 momentary or lock-out outage, how soon would it take you
14 before you started a non-routine inspection?

15 A. It depended. We would -- I get -- I even still
16 get them even though I'm not a troubleman. I get a
17 notification on my phone when one of the lines has a
18 momentary or is locked out.

19 So even in the middle of the night I'm making
20 plans with what I'm going to be doing that next morning
21 to go look at it in the daylight. If it's a critical
22 line and -- if the line is locked out, they're calling us
23 out. We're going normally. But the grid control center
24 can actually get a false location -- it's not always
25 accurate -- of where they feel that that problem is
26 within so many miles in each direction. And like I say,

1 that is not always accurate. Usually the higher the
2 voltage the more accurate it seems to be but . . .

3 Q. So on these routine inspections -- let's talk
4 about the aerial patrols for now. Who set the schedule
5 of when you would go do air patrols?

6 A. They have been in the system before I got there.
7 And we had the ability to change them every -- the end of
8 every year for the following year if we felt the need
9 because of workload or weather, the mountains. You know,
10 in January doesn't get it.

11 So we had that ability, but for the most part
12 it's been pretty much set for quite sometime. You know,
13 I changed a couple but not much.

14 Q. When you say it's in the system, what do you
15 mean by that?

16 A. The people before me and management and
17 everybody determined the lines, how they were patrolled,
18 and when to patrol, and then over time they have evolved
19 into what it is today.

20 Q. How about -- well, now, you said that there is
21 some ability to change the order for the next year. Is
22 that by individual troublemen like yourself or is that by
23 someone like your supervisor?

24 A. We can get together as troublemen. In fact, the
25 supervisor would like us to get together as troublemen,
26 go over the patrols, make sure that they're all in a

1 spreadsheet, make sure we're not missing anything, making
2 sure that it's the right patrol, that it didn't flop from
3 a detailed to air and it should be an air.

4 And then if we needed to -- at that point felt
5 that we needed to move one and we had more time in this
6 month and this or whatever, we could attempt to. In the
7 end the supervisor and his bosses could say "No. We're
8 going to keep it the way it is."

9 Q. How about for a detailed ground inspection? How
10 was the schedule for those lines set?

11 A. Same.

12 Q. Same way?

13 A. Same way, yeah. Yeah, we would have a
14 spreadsheet with arrows and details all in the same.

15 Q. As a troubleman did you have any ability to
16 differentiate from that schedule in doing inspections on
17 some lines sooner rather than others?

18 A. No. Earlier we discussed we have a couple of
19 circuits that are basically just two or three towers or
20 poles. And sometimes it didn't make sense to get a
21 helicopter to try and go buzz those. So I would go out
22 and get the approval. And that wasn't always to go out
23 and do a detail on those rather than a helicopter.

24 Q. But otherwise did troublemen have the ability to
25 differentiate from the schedule in choosing to do one
26 routine patrol before another?

1 A. You could actually go a month ahead. If your
2 workload -- if you finished in February, the February
3 month and you had some -- a busy March, you could move
4 into those patrols. There was a time where you could go
5 even further, but they didn't want us to go more than a
6 month.

7 Q. Did your immediate supervisor have a way to
8 direct troublemen to differentiate from that schedule in
9 doing routine patrols?

10 A. He'd have to get approval from his supervisor.

11 Q. In your experience, was it frequent?

12 A. No.

13 Q. It was not frequent for a supervisor to deviate
14 from that routine?

15 A. Not really, no.

16 Q. How about the superintendent? In your
17 experience, did he or she have the power to have
18 troublemen deviate from that routine patrol schedule?

19 A. You had to get -- the supervisor had to get
20 their approval. And very, very seldom. And I -- I don't
21 know. I really don't.

22 Q. Were there -- besides these routine inspections
23 done by a schedule and these non-routine inspections in
24 relation to some sort of outage, were there any other
25 types of inspections done by troublemen?

26 A. Yeah. There was -- I can't think of the term

1 than they used. But if they overloaded a line -- they
2 overloaded a line over by Orland one time. And when that
3 happens, we need to fly it and make sure everything is
4 okay; that the conductors aren't low and, yeah.

5 Q. What do you mean by overloaded?

6 A. They put too much amperage on the line. And it
7 has to be on there for so long in order for this event to
8 trigger. And that only happened one time. But that's an
9 incident of a non-routine that I can think of. I'm sure
10 there's more.

11 Q. Had the troublemen had concerns about a line,
12 could a troubleman do -- could a troubleman have done
13 extra inspections of a line?

14 A. Could I make that decision myself?

15 Q. Yeah. Well, could a troubleman make that
16 decision to do extra inspections on a line?

17 A. Oh, yeah. If you had the time, yeah, no
18 problem. And I would hope that if you didn't have the
19 time, you'd reach out for help to do it.

20 Q. And likewise, could a supervisor order an extra
21 inspection of a line?

22 A. Absolutely.

23 Q. And same for a superintendent?

24 A. Yeah.

25 Q. We kind of covered this already but I just want
26 to make sure here with the grand jury. What was the job

1 title of your immediate supervisor? The person above you
2 in the order chart, what was their title?

3 A. Supervisor.

4 Q. How about the person above them?

5 A. Superintendent.

6 Q. How often would you interact with your
7 supervisor on an average day?

8 A. Quite a bit. Not necessarily daily but weekly.

9 Q. What type of interactions would you have with
10 your supervisor?

11 A. Daily, daily work. I always kept in contact. I
12 think communication is big.

13 Q. How would a supervisor know that troublemen
14 actually inspect a line they said they inspected?

15 A. You're turning in a patrol saying that you
16 inspected that line. And I think that they do have a
17 certain amount of field checks that they're supposed to
18 do. But yeah, they're -- they're making sure. They're
19 taking your word that you went out and did your job
20 basically.

21 Q. And when you say patrol, you're talking about
22 the printed patrol forms that you fill out?

23 A. Yeah.

24 Q. Would you sign those patrol forms?

25 A. Yes.

26 Q. Would you date the patrol forms?

1 A. Absolutely.

2 Q. What date would you use when dating the patrol
3 form?

4 A. I tried to use whatever sheet that I ended up on
5 that day. And then the next day or whatever if I had a
6 weekend, come back and then that would be that day.

7 Q. And now, when you finished the patrol form and
8 you signed it, did you date it when you're all done with
9 it?

10 A. Yeah.

11 Q. What date would you use when dating the patrol
12 form at the end?

13 A. When it was complete.

14 Q. Okay. So the day it was completed?

15 A. Paperwork and everything complete and hand it in
16 to clerical.

17 Q. How much contact did you have with the
18 superintendent?

19 A. Not much. I had some contact with one because
20 he was my old supervisor and became superintendent. So
21 we still talked.

22 Q. But there wasn't much contact with them on an
23 average ongoing basis?

24 A. No, not really, no.

25 Q. I want to talk now about life spans of some
26 different parts of the transmission towers. If you

1 wanted to find out how old a transmission tower was, how
2 would you go about determining that?

3 A. Knowledge of people. You can actually pull up
4 structure data sheets on lines and figure out sometimes
5 that way. But most of the time you're finding out from
6 your supervisor who will probably ask the superintendent
7 and stuff like that. But I can actually pull up a line
8 and most of the time kind of figure it out.

9 Q. Are you familiar with the Caribou-Palermo line?

10 A. Yeah.

11 Q. Do you know how old the Caribou-Palermo line is?

12 A. I don't. Hundred years.

13 Q. Why do you say 100 years?

14 A. That's what everybody says.

15 Q. Okay. So that's saying you've been told that
16 it's 100 years?

17 A. Yes.

18 MR. FOGG: So I want to advise the grand jurors
19 again that just like the last witness hearsay statements
20 are only for the effect on the listener, not for the
21 truth of the matter.

22 BY MR. FOGG:

23 Q. So if you're saying that the Caribou-Palermo
24 line is approximately 100 years old, how did that affect
25 how you approached inspections at the Caribou-Palermo
26 line?

1 A. It's -- when I do an inspection, I do an
2 inspection. So I -- you know, my particular lines I try
3 and treat them the same. I didn't have a lot of hands-on
4 inspection on the Caribou-Palermo. I actually -- on the
5 crew I did line work on the Caribou-Palermo.

6 Q. When you did line work --

7 Well, let me take a step back. What is line
8 work?

9 A. When I was still on the crew performing the work
10 on the line.

11 Q. So if you needed to, let's say, change an
12 insulator string, would that count as line work?

13 A. Absolutely.

14 Q. When you're doing line work on the
15 Caribou-Palermo line, didn't the age of the tower, age of
16 the line change how you approached the line work?

17 A. Um, yeah. You had to pay attention to your
18 rigging. It wasn't -- they're not as sturdy as some of
19 the newer construction.

20 Q. Did the towers of the Caribou-Palermo line feel
21 different when you climbed them as opposed to more
22 recently built towers?

23 A. A little bit, yeah. They're harder to climb.
24 The lacing and everything, the way they're designed,
25 they're harder to climb. They -- it's a lot flimsier
26 than the newer design. But, yeah.

1 Q. So how about for a suspension -- a string of
2 suspension insulators? If you want to figure out how old
3 a string of those insulators were, how would you go about
4 finding out?

5 A. Some of them will actually have a stamp on it.
6 And then there again, you might -- structure data sheets
7 and stuff like that to figure it out.

8 Q. Are you -- to your knowledge is there a lifespan
9 for a string of suspension insulators?

10 A. I don't know.

11 Q. Do you know if any one or anything in PG&E was
12 tracking the age of specific insulators hanging on lines?

13 A. I don't.

14 Q. How about for a C-hook holding up a string of
15 insulators? If you wanted to know how old it was, how
16 would you go about finding out?

17 A. More than likely you would assume by the look of
18 the insulators and all the hardware that it was probably
19 either changed at one point or it was original. And then
20 you would just find out when the line was built and
21 assume that they've been there since.

22 Q. So your assumption was to assume that the hook
23 was as old as the tower?

24 A. Uh-huh, absolutely.

25 Q. Was that an assumption you were trained to have
26 or is that something you developed on your own?

1 A. I think you develop it on your own, but you also
2 hear -- it's hard to say old-timer because I'm the
3 old-timer now. But you heard the old-timers say it.

4 Q. To your knowledge, was there anyone or anything
5 in PG&E tracking the age of individual C-hooks?

6 A. No.

7 Q. I want to focus on C-hooks a little bit. Before
8 the Camp Fire in your time at PG&E, did you see any
9 C-hooks that had broken on transmission lines?

10 A. Never.

11 Q. Did you see any C-hooks that were particularly
12 worn down?

13 A. No. Usually, the dead-end plate or the
14 suspension plate had wear on it before the C-hook itself.

15 Q. What is a dead-end or suspension plate?

16 A. What we talked about earlier. The eye that
17 holds the hook or the attachment point hooks to.

18 Q. Okay. I want to show you now Grand Jury
19 Number 38, if I could make my iPad work here.

20 So on the board behind you is Grand Jury
21 Exhibit 38. Can you tell the grand jury, please, what
22 we're seeing in that image there.

23 A. That's a suspension eye. And apparently, that
24 must be an add-on of another suspension eye. I don't
25 know.

26 Q. Are the -- is what is depicted in Exhibit 38

1 different from the suspension plate you were just talking
2 about or is it the same thing?

3 A. Same thing.

4 Q. Okay.

5 A. Normally - normally you see wear here
6 (indicating), not on the hook itself.

7 Q. So you're just pointing at Grand Jury
8 Exhibit 38 -- and I need to narrate this because we're
9 writing everything down. You're pointing at the bottom
10 of the eye of the hanging plate?

11 A. Absolutely.

12 Q. And in your experience both as a lineman and
13 troubleman, was it common to see an extra hanging plate
14 added to the arm of a transmission tower?

15 A. No. I've never seen that.

16 Q. Acknowledging you've never seen that, would it
17 be your understanding that the transmission maintenance
18 line troublemen linemen would add that plate or would
19 that be something the tower department would be more
20 likely to do?

21 A. Tower.

22 Q. Why do you say that?

23 A. Steel. Steel to steel. There is a good
24 possibility that the line crew did it, but I would think
25 that tower came, punched new holes in order to attach it,
26 and had the -- I know it looks simple, the bolts and

1 everything. But we don't have the little spacers and all
2 of that up on top of that. So I would just about bet
3 tower made that modification.

4 Q. But you don't know for certain in this
5 particular image? You're speaking generalities based on
6 your knowledge?

7 A. Yeah, absolutely.

8 Q. How about we've talked a little bit about wind.
9 In your time at PG&E have you seen components on a tower
10 that are worn by wind?

11 A. Yeah. The eye itself, like I say, would be more
12 worn, wallerd out a little bit.

13 Q. When you say "wallerd out," what do you mean by
14 that?

15 A. Like how that bottom one that's a little oblong
16 rather than round, that is worn.

17 Q. So the two eyes instead of being originally
18 circular, it starts to elongate at the bottom?

19 A. Yeah.

20 Q. In your time working for PG&E, did you receive
21 any formal training about the affect of wind?

22 A. Not really, not that I can recall. It was
23 instilled in our brain as we grew up as linemen.

24 Q. Instilled that wind could cause wearing on --

25 A. Oh, yeah, yeah. Yeah, wind. As far as
26 everything. You know, damage and . . .

1 Q. Did you receive any -- in your time with PG&E,
2 did you receive any specific warnings from the company
3 either in the version of a safety bolt or notice about
4 wind causing wear on cold-end attachment points?

5 A. Not that I can recall.

6 Q. What is -- in talking about transmission towers,
7 what is vibration with regard to transmission towers and
8 wind?

9 A. The conductor in the wind will vibrate, bounce,
10 and sometimes you can feel the whole tower actually
11 vibrating. And if you're up a tower, you can actually
12 feel it move.

13 Q. How does vibration affect the components on a
14 tower?

15 A. Over time constant. You know, oblong and stuff
16 like that (indicating).

17 Q. I want to jump now to Exhibit 188. Now,
18 (WITNESS #11), looking at Exhibit 188, can you tell us
19 what is depicted in that image.

20 A. It looks like it's a suspension jumper support.

21 Q. Now, do you see is there -- can you see the
22 string of insulators and the steel arm in the image?

23 A. Uh-huh.

24 Q. Do you see where the hook goes through the eye?

25 A. Uh-huh.

26 Q. Does the amount of space you can see in that eye

1 tell you anything about the condition of either the eye
2 or the hook?

3 A. No, not from here.

4 Q. When you say "not from here," what do you mean
5 by that?

6 A. Looking at it from here, there's different --
7 there's different sizes of rigging eyes or dead-end
8 plates, suspension eyes. So no. I mean, to me that
9 could be just fine.

10 Q. Would you need to be -- to figure out by looking
11 at the eye and the hook that there was a potential
12 problem, would you need to be closer?

13 A. Absolutely, yeah.

14 Q. To the hook and what is described in image 188?

15 A. Yeah.

16 Q. Okay. I'd like to draw your attention now to
17 Exhibit 191. Could you tell us, please, what is in
18 Exhibit 191?

19 A. Then I would say I would start looking at it as
20 if it's an issue.

21 Q. What about -- what about what is depicted -- or
22 what is depicted in Exhibit 191?

23 A. To me it looks like the eye itself is wallerd
24 and the C-hook is down into the eye, which would make me
25 worried that the eye itself might be compromised.

26 Q. So if you saw what you see in Exhibit 191 during

1 any type of inspection of a transmission line, would you
2 report that problem?

3 A. If I saw that right there, absolutely.

4 Q. Yeah. Did PG&E have priority tags or ways to
5 rank the priority of different --

6 A. Yes.

7 Q. What was that system?

8 A. "A" tag means you don't leave. It's going to be
9 dealt with now. "B" tag you have -- I think it's
10 30 days. It might be 90 days. And then an "E" tag is a
11 year.

12 Q. What tag would you assign -- what priority tag
13 would you assign in what you see in 191 if you saw that
14 during an inspection?

15 A. A "B." I would probably make it a "B" because
16 it's probably been that way a while. I would probably
17 tell them "Hey, Guys, if you get a chance, let's go take
18 a peek at it from out of the tower."

19 Q. When you say "from out of the tower," you mean
20 by climbing the tower?

21 A. Yeah. I would have the crew go check it for me.
22 And then I might be able to get in a position with a
23 helicopter to determine, you know, "Maybe we better look
24 at this now." But if I was looking at that right there,
25 I would probably say a "B."

26 MR. FOGG: Okay. Madam Foreperson, I notice

1 we're about -- we've been at it for about an hour and
2 20 minutes or so. This is a natural stopping point for
3 me for a break. Would it be a convenient time for the
4 grand jury's break?

5 GRAND JURY FOREPERSON: Okay. Yes. Okay.

6 MR. RAMSEY: Before you go, could you --

7 GRAND JURY FOREPERSON: 15 minutes?

8 MR. RAMSEY: If that works for the grand jury,
9 that works for us.

10 GRAND JURY FOREPERSON: Okay. (WITNESS #11),
11 you are admonished not to discuss or disclose at any time
12 outside of this jury room the questions that have been
13 asked of you or your answers until authorized by the
14 grand jury or the Court. A violation of these
15 instructions on your part may be the basis for a charge
16 against you of contempt of court. This does not preclude
17 you from discussing your legal rights with your own
18 attorney.

19 (WITNESS #11), what I have just said is a
20 warning not to discuss this case with anyone except the
21 Court, your lawyer, or the district attorney.

22 You understand?

23 THE WITNESS: I understand.

24 GRAND JURY FOREPERSON: Okay. Thank you.

25 MR. FOGG: Fifteen minutes, Madam Foreperson?

26 GRAND JURY FOREPERSON: Yes.

1 MR. FOGG: Thank you.

2 [Recess taken from

3 2:20 until 2:36 p.m.]

4 GRAND JURY FOREPERSON: We're ready to resume.

5 MR. FOGG: Madam Foreperson, are we ready to
6 begin?

7 GRAND JURY FOREPERSON: We're ready to begin.

8 MR. FOGG: All right. (WITNESS #11), just to
9 remind you again, you're still under oath.

10 **EXAMINATION CONTINUED**

11 BY MR. FOGG:

12 Q. I want to turn your attention now to Grand Jury
13 Exhibit 178, which will be on the screen behind you.

14 Can you tell us what is depicted in Grand Jury
15 Exhibit 178?

16 A. That is a C-hook.

17 Q. Can I get you to pull that microphone a little
18 bit closer.

19 A. C-hook.

20 Q. Does anything seem abnormal about this C-hook?

21 A. Yeah. It's very abnormal. It's worn.

22 Q. And when you're saying "worn," are you referring
23 to the notch that appears to be at the top of the C-hook?

24 A. Absolutely.

25 Q. Have you seen any C-hooks with this type of
26 wear --

1 A. Never.

2 Q. -- working for PG&E?

3 A. Never.

4 Q. If you came across this C-hook like this on a
5 tower, what would you do?

6 A. I would let it be known that we need to start
7 looking at this.

8 Q. Who would you tell?

9 A. My supervisor.

10 Q. Based on your experience in working with your
11 colleagues at Table Mountain, what would you expect them
12 to do if they came across a C-hood that looked like
13 Exhibit 178?

14 A. There's no question in my mind that it would get
15 pushed to get looked at by testing or whoever. But
16 that's -- normally the stuff that I seen was the eye
17 itself oblong. I have never seen a hook look like that.

18 Q. And I want to go back with some things you said
19 earlier. I didn't do a good job of cleaning up odds and
20 ends. So I want to circle back on a few things.

21 When we're talking about your chronology of the
22 time you spent at PG&E, I found myself a little confused.

23 What job do you currently have?

24 A. I'm currently working helicopter operations with
25 PG&E. And I've been there for a couple of months.

26 Q. Okay. A couple months. What job did you have

1 before that?

2 A. Before that I elected to go into the management
3 side for my pension for my last few years. So I went
4 into contracts. So I was a lead inspector over
5 contractors.

6 Q. Do you remember about when you took that
7 contract?

8 A. July -- two years ago July.

9 Q. So about July 2017?

10 A. Yeah.

11 Q. And before you took the contractor job, were you
12 a troubleman --

13 A. Yes.

14 Q. -- at Table Mountain?

15 A. I was a troubleman out of Table Mountain, but my
16 lines were in the Redding area.

17 Q. And I know we covered this earlier. How long
18 were you a troubleman at Table Mountain?

19 A. About ten years. And that's just a guess. It
20 was about ten years ago.

21 Q. Fair to say it was approximately ten years?

22 A. Yeah, yeah.

23 Q. Approximately how long were you a lineman at
24 Table Mountain before you became a troubleman?

25 A. Five years.

26 Q. So is it fair to say that you were either a

1 lineman or troubleman at Table Mountain for about
2 15 years?

3 A. Pretty close.

4 Q. And you said when you were a troubleman, your
5 lines were somewhere else?

6 A. My lines --

7 Q. What did you mean by that?

8 A. Each -- there's four troublemen out of Table
9 Mountain and each troubleman has an area. My --

10 Q. When you say "area," do you mean type of lines
11 or geographically?

12 A. Geographically.

13 Q. What area did you cover?

14 A. Mine is from mainly on the west side down
15 towards Willows and then all the way up to Shasta Lake.

16 Q. Do you remember what the -- how many other
17 geographic areas were there for troublemen based out of
18 Table Mountain?

19 A. There's four.

20 Q. Do you remember what the other three consisted
21 of?

22 A. There's one that will go from Willows on down to
23 Colusa and over to 99 or so and then one from 99 up to
24 Highway 70 into Quincy. I'm not sure of that boarder up
25 there. But then the third would have been Burney,
26 McArthur, and over to Shasta Lake. And then I would take

1 over from that side.

2 Q. And which of those areas would have covered the
3 Feather River Canyon lines?

4 A. That would have been the troubleman from
5 probably 99 to Quincy.

6 Q. When you first started as a lineman at Table
7 Mountain, do you remember which troubleman had that area?

8 A. I believe his name was (WITNESS #13).

9 Q. Do you remember which -- do you know if (WITNESS
10 #13) is still at Table Mountain?

11 A. No. He's retired.

12 Q. Do you know which lineman -- strike that.

13 Which troubleman took over the area including
14 the Feather River Canyon after (WITNESS #13) left?

15 A. I believe (WITNESS #1).

16 Q. And did (WITNESS #1) eventually retired?

17 A. Yes.

18 Q. Do you know who took it over from (WITNESS #1)?

19 A. I believe it's (WITNESS #6).

20 Q. And that is based on -- when you say it's
21 (WITNESS #6) and (WITNESS #1), that is based on what you
22 experienced and saw when you were working at Table
23 Mountain?

24 A. Yeah. And (WITNESS #6) kind of -- (WITNESS
25 #6) -- I left so I'm doing this all on my -- my thought
26 and my memory I think (WITNESS #6) got that area.

1 Q. Okay. So these different areas, were they
2 written down somewhere describing the different areas?

3 A. Kind of. Everybody knew whose lines was whose
4 for the most part and then we obviously knew our lines.
5 But yeah, it was kind of known that those lines were
6 certain individual's.

7 Q. Does that -- were those areas assigned by the
8 supervisor?

9 A. Pretty much, yeah.

10 Q. And how often would a troubleman inspect lines
11 outside of their usual area?

12 A. It happened quite often when especially the two
13 troublemen up north. We always helped one another. A
14 lot of times on these lines when you run up to the
15 mountains, it's really nice to have somebody drop you off
16 so that you can take off walking over the mountain and
17 he'll pick you up on the other side. So you become a
18 team, the northern team.

19 I'm not exactly sure how the south would work.
20 We actually flew together a lot, too. Guy in the front,
21 guy in the back, one trying to keep an eye on the priors
22 coming up with the computer, the other guy looking and
23 then obviously after so many hours just helping each
24 other. So it's done differently in different, you know,
25 areas.

26 Q. When you say the two northern guys, would that

1 include the troubleshooters with responsibilities over the
2 Feather River canyon?

3 A. No.

4 Q. So the Feather River Canyon would be partly
5 described as the south?

6 A. Yeah.

7 Q. You made reference earlier when we were talking
8 about the age of different components to a document
9 called a structure data sheet. What's a structure data
10 sheet?

11 A. Engineering documents. We have -- on a computer
12 we all -- we actually have a GIS that actually has all
13 the lines. And you can double click on a structure, on a
14 circuit or even the circuit and it will give you -- some
15 of them will give you a description of what is out there;
16 the conductor size, the type of structure. And sometimes
17 it will actually give you a data sheet of the engineering
18 document of how it was built and possibly in the bottom
19 when it was created.

20 Q. Did those documents -- well, let me take a step
21 back.

22 Did the GIS system have a specific name in PG&E?

23 A. I just called it GIS. It's a mapping system.

24 Q. And if I wanted -- who would I ask from PG&E if
25 I wanted to see that mapping system?

26 A. Supervisor. I don't know.

1 Q. I want to ask about -- in your experience as
2 either a lineman or troubleman, did you ever see any
3 incidents when multiple towers fell down in the
4 Caribou-Palermo line?

5 A. I actually worked on -- I believe it was the
6 Caribou-Palermo. There were three -- I think three
7 structures went down, and we replaced them.

8 Q. Do you remember about when that was?

9 A. I don't.

10 Q. Do you --

11 A. Eight years maybe. That's just a guess, too. I
12 don't know. And I think it was the Caribou-Palermo line.

13 Q. Do you remember what time of year?

14 A. Winter because it was -- they -- a slide took
15 them out.

16 Q. And who is responsible --

17 Well, when you say "took them out," the towers
18 fell down?

19 A. Well, the ground moved and they went with it.

20 Q. Whose responsibility within PG&E was it to put
21 the towers back up?

22 A. All of us, tower. We had contractors building
23 roads to the tower and constructing. I think we put up
24 temporary poles until we could get towers built. So it
25 was an effort from all.

26 Q. On that patrol sheet we've talked about, if a

1 series of towers fell down and were replaced by a series
2 of poles, how would the patrol sheet for that line
3 change?

4 A. If it's permanent, it would just -- it would
5 come in as changed through the system.

6 Q. What counts as -- I guess what do you mean by
7 "permanent"?

8 A. If you -- if you replace a structure -- let's
9 say it's a steel tubular structure -- it's going to be
10 documented and imputed into that patrol so that you know
11 in the field that it's no longer a lattice steel tower.
12 It's a steel tube basically.

13 Q. The poles that replaced the towers that were
14 knocked down in the landslide, if those poles were meant
15 to be temporary, would the patrol sheet change to reflect
16 the presence of those poles?

17 A. I don't think so simply because I think normally
18 they're replaced in an amount of time that it shouldn't
19 affect it. And there again, if that was that line, I
20 believe I was still in the north and came down to help.
21 And I actually ended up working on putting it back even
22 as a troubleman.

23 Q. Okay. I want to jump back to Exhibit 188. It
24 should now be on the screen behind you.

25 Earlier we were talking about what you could
26 tell from the amount of daylight you could see in this

1 eye and you talked about other different size eyes and
2 different size hooks.

3 Do you know how many different size eyes there
4 are on a transmission tower?

5 A. I don't know the different size hooks but
6 rigging eyes and working eyes you'll see a different
7 diameter.

8 Q. So the intended -- let me take a step back.

9 So all the working eyes are not all intended to
10 be the same size? There are some that are different
11 sizes?

12 A. I don't think so, no.

13 Q. I'm sorry. I don't think I'm being clear. I
14 didn't understand.

15 Are all the working eyes supposed to be the same
16 eyes?

17 A. I have no idea, but I'm pretty sure. Through my
18 career there's different rigging eyes and working eyes.

19 Q. How about -- we've used the term and have heard
20 from other witnesses "rigging eye" versus "working eye."
21 What is the difference between those two?

22 A. This one has no rigging eye. Normally -- or I
23 shouldn't say normally. The newer structures will
24 actually have another eye in the inside where you can
25 hang your hoist or rigging to work that structure.

26 Q. And so you said the rigging eye. So what we're

1 seeing right now in Exhibit 188 is the working eye?

2 A. No. That's the actual suspension eye or --
3 yeah, that's a suspension eye right there.

4 Q. Okay.

5 A. This has no rigging eye but -- I'm sorry. I
6 keep referring to them, but normally I will see one.

7 Q. And I just ask to help me understand. So in
8 Exhibit 188 there is no rigging eye?

9 A. No.

10 Q. But we see -- what's the name of the eye that
11 the hook is hanging in?

12 A. Suspension eye, suspension plate.

13 Q. Could that also be called a working eye or --

14 A. No. A working eye would be another eye on the
15 other side that you would actually use for rigging.

16 Q. Okay. So rigging eye and working eye are the
17 same ways to describe -- or two terms for the same thing?

18 A. They're very similar. It's two eyes rather than
19 one.

20 Q. Okay.

21 A. And this one here in order to work that tower, I
22 would have to rig over the steel. The newer design you
23 will actually have an eye that you can utilize to hang
24 your rigging.

25 Q. So talking about the suspension eye then -- and
26 I apologize if I was confusing but --

1 A. No. I think I confused everybody. I'm sorry.

2 Q. But talking just about suspension eyes, in your
3 experience were those all meant to be the same size under
4 115 kV lines?

5 A. I don't think so, no. I think there are
6 different eyes.

7 Q. How about C-hooks? In your experience with
8 C-hooks all are roughly the same diameter?

9 A. Yeah.

10 Q. Is there a -- is there a reference or document
11 from PG&E that would list the different diameters of the
12 eyes for the transmission lines?

13 A. I have no idea.

14 Q. We talked earlier about the tower department.
15 To the best of your knowledge, does the tower department
16 do inspections on transmission lines under 500 kV?

17 A. I believe so. I don't know how it's triggered
18 or what schedule, if any, is out there, but they
19 definitely do inspections if triggered.

20 Q. And triggered? What do you mean by triggered?

21 A. If somebody requests it or . . .

22 Q. We talked earlier about age of the
23 Caribou-Palermo line. And you gave a number 100. In
24 your experience, is the age of the Caribou-Palermo line
25 common knowledge among the workers at Table Mountain?

26 A. Uh-huh. Everybody says "The old Caribou line."

1 Q. You mentioned also that you had climbed towers
2 and climbed them less frequently after the -- was it the
3 self arrest?

4 A. I'm sorry?

5 Q. Well, you mentioned climbing towers earlier and
6 there was a change in technology where you did it less
7 frequently. What was the name of that change?

8 A. One hundred percent fall restraint.

9 Q. Fall restraint. Do you remember approximately
10 when that technology came into place?

11 A. Between five and ten years. Probably five,
12 seven. I don't know.

13 Q. Before the fall arrest came in -- became in use,
14 how often in a given year would you say you would climb a
15 transmission tower during an inspection?

16 A. Just a few. Very, very few.

17 Q. How about your -- do you know from your own
18 personal experience if colleagues would climb towers more
19 or less frequently during inspections?

20 A. I would think that -- I would think that I would
21 probably be more apt to do it than most.

22 Q. Why do you say that?

23 A. I just -- that's my work ethic.

24 Q. And then once the -- and it was the --

25 What's the name of the technology again?

26 A. One hundred percent.

1 Q. Okay. The 100 percent fall restraint. Once
2 that came into effect, how often a year would you climb a
3 tower during inspection?

4 A. You know what? After it came into effect, I
5 think I did it one time.

6 Q. Do you know from your own personal observations
7 how often your colleagues would climb towers?

8 A. Let me fix that a little bit.

9 Q. Please do.

10 A. So that's if I wanted to climb up high, install
11 a "High" sign or something like that. Back then I
12 installed "High" signs a lot. But then you're only going
13 up, you know, 15 to 20 feet and you're not having to buck
14 all the way up 100 percent. So yes, quite a few "High"
15 signs. But as far as climbing up, very few. Maybe one
16 time.

17 Q. So how high would you have to climb to reach a
18 point where you can see the insulators and the conductor
19 and the connector?

20 A. Depending on the structure. There's 75-footers
21 to 200-footers. So, yeah.

22 Q. So when we would have been talking about having
23 this conversation, we're referring to climbing up 75 feet
24 or up to 200 feet, not the 15 to 20 feet?

25 A. Right.

26 Q. Thank you.

1 A. Just to the "High" signs. I mean, I'm still
2 using the 100 percent. But you just go on up, install a
3 "High" sign, and be done.

4 Q. So after the 100 percent came into use, did you
5 observe your colleagues climbing towers less frequently
6 or about the same rate?

7 A. I would think less, but I can't say that. I
8 wasn't around.

9 Q. Okay.

10 A. But I would think less. It became very
11 cumbersome. And even just to pack the stuff needed on
12 your utility vehicle was tough.

13 Q. I want to ask you now questions about your
14 colleagues. And when I do, I will be very clear I am
15 only asking about what you personally observed, not any
16 innuendos or rumors or things you have heard. Okay?

17 A. Uh-huh.

18 Q. Did you ever personally see any troublemen cut
19 corners in their inspection work?

20 A. No.

21 Q. Did you ever personally see any lineman cut
22 corners in their line work?

23 A. No. There's different ways of doing line work.
24 So no.

25 Q. How about did you ever see a troubleman skip an
26 air patrol?

1 A. No, no. That's tracked by supervisors and the
2 clerical support in the yard. Nobody is going to be able
3 to skip it. It's going to be -- it's going to be done.

4 Q. Did you ever see a troubleman skip a ground
5 inspection?

6 A. No. It can't be. It has to be done. It's
7 mandated so it has to be done.

8 Q. How would -- do you know how supervisors would
9 verify that a ground inspection did get done?

10 A. Through the paperwork trail.

11 Q. How about did you ever see a troubleman -- and
12 this is your own personal observation. Did you ever see
13 a troubleman falsify inspection documents?

14 A. No, no. We're pretty much doing our own
15 paperwork so . . .

16 Q. I beg your pardon?

17 A. We are pretty much doing your own paperwork. So
18 I wouldn't be able to see anybody falsify.

19 Q. Did you ever -- in your experience did any
20 troublemen find fewer conditions on lines than other
21 troublemen?

22 A. Probably. I don't know. I can't verify it
23 but . . .

24 Q. But from your personal observations?

25 A. I -- there again, I was very anal in my
26 position. And probably some of the stuff I write up a

1 lot of others would not.

2 Q. Okay. The question is did you see any -- from
3 your own personal observation did you see any troublemen
4 who consistently reported fewer conditions on lines than
5 other troublemen?

6 A. No, I can't say that, no.

7 Q. Why can't you say that?

8 A. I never seen them do it.

9 MR. FOGG: Okay. Will you give me just a second
10 so I can consult with my colleagues.

11 [Conferring off the record.]

12 MR. FOGG: (WITNESS #11), we're done with
13 questions, but we want to give the opportunity for grand
14 jurors to ask questions.

15 So are there any grand jury questions for
16 (WITNESS #11)?

17 [Written questions are passed forward.]

18 MR. FOGG: So we have two sheets of questions.
19 Are there any others, Madam Foreperson?

20 GRAND JURY FOREPERSON: No.

21 MR. FOGG: Okay. So we'll take a second now to
22 review the questions, and we'll be right back.

23 [Conferring off the record.]

24 BY MR. FOGG:

25 Q. Now, (WITNESS #11), we have a couple of
26 questions from the grand jurors.

1 A. Okay.

2 Q. First, I want to circle back talking about the
3 detailed ground inspections. How long would it take to
4 complete a ground inspection of a line that consists of a
5 couple hundreds towers?

6 A. Depending on terrain. I could do a ground
7 inspection on a line of mine called the Cottonwood Number
8 One. And a lot of it is on the road so I could complete
9 that patrol really fast.

10 Obviously, the Caribou-Palermo, the line that
11 we're speaking of, that line would take quite a bit of
12 time. Sometimes -- let me use the 500 line. The 500
13 line --

14 Q. When you say "500 line," which line?

15 A. That's our two major state tie lines up in the
16 foothills.

17 Q. Okay. You were saying?

18 A. What's that?

19 Q. Okay. Continue, please.

20 A. Yeah. Well, some of those structures you can
21 actually go in and get to two or three structures. And
22 it'll take you half a day to get to them and then you've
23 got to drive all the way back out and go past a canyon
24 and go to the other side to get to a few more.

25 So there's so many variables to how long it's
26 going to take. That 500 line when I would help patrol on

1 that, we all would try and get everybody to help because
2 we know.

3 You know, the Caribou-Palermo I'm not real
4 familiar with it. But what I do know of the canyon and
5 the little bit that I've been around it, I'm going to ask
6 for help. So it takes a little bit of time.

7 Q. So if you couldn't complete a ground inspection
8 in a day, would you be required to continue it the next
9 day?

10 A. Oh, absolutely. You're talking -- that 500 line
11 that I'm referring to, you're talking a full month.

12 Q. And would you be expected to do just that
13 inspection of that line until it's complete or were you
14 sent out on other assignments?

15 A. There's switching. There is other assignments
16 involved. That's another reason that you're getting
17 help. But usually when you've got a line like these
18 lines, you're looking for somebody to give you a hand
19 because they take time.

20 Q. How about on an air patrol? Are those
21 frequently completed in a single day or do they take
22 multiple days?

23 A. Most of the time you're talking doing a long
24 line in a couple of hours. The 500 line that I've been
25 referring to, there's two lines side by side that run
26 from Table Mountain all the way up to Burney. And with

1 fuel and going back into Red Bluff or wherever your fuel
2 stop is, it's going to take you -- you can do it in a
3 day, but your patrol starts tailing off. Again, like I
4 say, you're tired. You're looking at the same thing over
5 and over again. So you're looking at a day and a half
6 probably to do those two lines.

7 But the Cottonwood one that I referred to
8 earlier, even though it's a long line going from Corning
9 to Cottonwood and it forks out to Gerber and these other
10 locations, you can fly that fairly fast because it's --
11 it's easy and accessible.

12 Q. Whose job was it to make sure that an inspection
13 got done if it wasn't finished in a single day?

14 A. The supervisor. I mean, the troubleman. If I
15 knew that I was in jeopardy of not completing that, I'm
16 going to reach out for help and tell the supervisor "I
17 need help." So he's going to help you get that help.

18 Q. And would the help come -- what form would that
19 help come in?

20 A. Crew member, troublemen, whoever is available
21 that has the experience to do it. A lot of times
22 especially out of Table Mountain you're going to get
23 somebody off the crew because that's where you all are.
24 The other troublemen up in the north would help if needed
25 but would stay up there.

26 MR. FOGG: One second.

1 [Conferring off the record.]

2 BY MR. FOGG:

3 Q. At any time in your career did you receive
4 formal training from PG&E about when the cold-end
5 attachment points on transmission lines should be
6 replaced?

7 A. No.

8 Q. Did you receive any informal or on-the-job
9 training on that?

10 A. Absolutely. Every time I changed a string of
11 insulators it's right in front of you. And you know if
12 it's a problem. And normally, when you change a string
13 of insulators, you reset the clock, we call it, and
14 change all the hardware.

15 Q. So when you say "reset the clock," you mean --
16 so if you change the insulators, you change the C-hook as
17 well?

18 A. Absolutely.

19 Q. Was there an actual clock somewhere?

20 A. No, no, no, no. That's just a term that we use.

21 Q. Okay. On -- when you did an aerial patrol, did
22 you have a checklist of things to look at for each tower?

23 A. No, no. It was just -- yeah, in my mind.
24 Depending on the line, you have shield wire. Some of it
25 doesn't. So I would actually get into whatever groove
26 that I got into whether it started from the base looking

1 up the insulators all the way up to the top to the shield
2 wire or in reverse.

3 You just kind of got into a comfort zone of what
4 you're looking for and how. And that might change after
5 you get fuel just to, you know, try and break things up.

6 Q. But that was a mental checklist, not a ran
7 checklist?

8 A. Yeah. And there is, but it's a mental -- it's a
9 mental thing when you're in a helicopter with patrol,
10 camera, binoculars, and a notepad.

11 Q. So there's -- so if I understand what you're
12 saying, there's a written checklist somewhere that you
13 would have in mind?

14 A. No. I shouldn't have said that. I shouldn't
15 have said it that way. There might be, but for me it was
16 an experience.

17 Q. How about for a ground inspection of the
18 transmission tower? Was there a checklist you had with
19 you?

20 A. It's in the ETPM manual, but I always just had
21 my patrol with me. I knew what I was looking for.

22 Q. Were you ever told in your time at PG&E what the
23 diameter of a suspension eye should be?

24 A. No, no. That's all just me working.

25 Q. How about the diameter of a C-hook?

26 A. No. But a C-hook is a C-hook.

1 Q. Well, what do you mean "A C-hook is a C-hook"?

2 A. There's no other variation. There's different
3 attachments. There's a "Y" ball. There's different ways
4 to attach insulators to a tower, but a C-hook is a
5 C-hook. It looks a little different than the older
6 style, but it's a C-hook.

7 Q. So, (WITNESS #11), I want to direct your
8 attention back up to the screen behind you to
9 Exhibit 191. We talked earlier about that -- that hook
10 would give you -- seeing that hook and the eye would be
11 cause for concern.

12 How would you tell that the state of the hook
13 and the eye is cause for concern and not just a
14 reflection of the hook and the eye diameter?

15 A. Like I say, to me I would have to be probably
16 either really, really close and look at it. And to me it
17 looks like it's down in it. And with my experience over
18 the years normally it would be an oblong eye, not like
19 the hook that you showed me. I've never seen that
20 before. It would be that eye that is worn.

21 And that's another reason in my mind I wouldn't
22 be as concerned to make it an "A" tag. A "B" tag you
23 could -- what I've seen over the years, it's -- normally
24 the eye has that little bit of an oblong to it.

25 Q. And when you say you see the oblong, that's a
26 sign of wear?

1 A. Yes.

2 Q. So the suspension eyes are always round in your
3 experience?

4 A. Yes.

5 Q. But so if you see a C-hook sitting down in it,
6 that would suggest some of the oblong wear?

7 A. That's my opinion, yeah, absolutely. I -- like
8 I say, I have never seen a C-hook like that.

9 MR. FOGG: (WITNESS #11), can I have one more
10 moment with my colleagues, please.

11 [Conferring off the record.]

12 BY MR. FOGG:

13 Q. We were talking earlier about if you needed help
14 to complete an inspection and you mentioned you'd get
15 help from the crew. Who is the crew or crew member?

16 A. In order to get into Table Mountain, it's a
17 bidding system with the union. And there are so many
18 linemen that have bid into the yard. So you're either
19 going to ask for -- there's -- they had a truck driver
20 for a while, but it's all linemen now.

21 You're going to ask for help from one of the
22 qualified linemen or the foreman. You know, sometimes
23 the foreman has some free time, and he'll go. But that's
24 who I'm referring to that would help on a patrol. And as
25 I said before, it could be a couple of them, a few of
26 them.

1 [Counsel conferring off the record.]

2 BY MR. FOGG:

3 Q. And, (WITNESS #11), you mentioned that
4 there's -- that a C-hook is a C-hook, but you also
5 mentioned that there's an older style C-hook, a newer
6 style. What did you mean by that?

7 A. It's probably the same. I wish I had a couple
8 to show you. But I think -- I think that the newer
9 C-hook is a little beefier than the older style, but it's
10 the C-hook.

11 Q. And you say that based on your personal
12 experience handling these?

13 A. Yeah, absolutely. It's just me handling them
14 over time.

15 [Counsel conferring off the record.]

16 BY MR. FOGG:

17 Q. We talked earlier about replacing C-hooks.
18 Well, I want to make sure we talked about this.

19 When you replace an insulator string, you
20 replace the C-hook at the same time; correct?

21 A. Yes.

22 Q. Where did you get the C-hook from that you then
23 used to replace it?

24 A. Material. We either have stock material in the
25 yard. Or if you have a big enough job, the job is
26 ordered and it's included in the material to do the work.

1 Q. Who handles -- when you worked at Table
2 Mountain, who handled the ordering of material?

3 A. It was a collaboration of all of us saying "Hey,
4 we're running low on this" or whatever. And we all kind
5 of work together to make sure that we had especially the
6 stock that we utilized and used a lot.

7 [Counsel conferring off the record.]

8 BY MR. FOGG:

9 Q. So when you ordered the C-hook, would you order
10 directly from manufacturer or tell anyone else in PG&E
11 "Get me more C-hooks"?

12 A. We actually have a warehouse in PG&E. So we
13 have "M" codes and that C-hook has its own code. And it
14 would go to that warehouse. And where the warehouse gets
15 it I don't know. But I think our -- I think most of our
16 stuff comes from Marysville or Fremont, I believe.
17 Through the company.

18 MR. FOGG: So, (WITNESS #11), I think we're now
19 finally done with our questions.

20 Are there any further questions from the grand
21 jurors?

22 Seeing none. I don't think we have any further
23 questions for you at this time, (WITNESS #11). Thank
24 you.

25 THE WITNESS: Thank you.

26 GRAND JURY FOREPERSON: Thank you.

1 MR. MORRIS: Admonition.

2 GRAND JURY FOREPERSON: Again?

3 MR. MORRIS: Yes, please.

4 GRAND JURY FOREPERSON: Okay. Sorry.

5 Okay. (WITNESS #11), you are admonished not to
6 discuss or disclose at any time outside this jury room
7 the questions that have been asked of you or your answers
8 until authorized by the grand jury or the Court. A
9 violation of these instructions on your part may be the
10 basis for a charge against you of contempt of court.
11 This does not preclude you from discussing your legal
12 rights with your own attorney.

13 (WITNESS #11), what I have just said is a
14 warning not to discuss this case with anyone except the
15 Court, your lawyer, or the district attorney.

16 THE WITNESS: Okay.

17 GRAND JURY FOREPERSON: Thank you.

18 THE WITNESS: Thanks. Thanks, Everybody.

19
20 (PROCEEDINGS OMITTED.)

21
22 [Matter adjourned at 3:30 p.m.]

23 --oOo--
24
25
26

COURT REPORTER'S CERTIFICATE

This is to certify that I, Lisa McDermid Welch, a Certified Shorthand Reporter of the State of California was present at the time and place the foregoing grand jury proceedings were had and taken in the within matter; and that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings; and afterwards caused my said shorthand writing to be transcribed into typewriting; and the foregoing pages, beginning at the top of Page 1 to and including Page 108 hereof, constitute a full, true, accurate, and complete record of the proceedings.

DATED: This 26th day of June, 2019.

Lisa McDermid Welch

LISA MCDERMID WELCH, CSR, RPR
CSR LICENSE NO. 10928

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

BCSC-2019-GJ-01

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REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, JUNE 25, 2019

VOLUME 11

OROVILLE, BUTTE COUNTY, CALIFORNIA

JENNIFER L. HUNT, CSR 10735, OFFICIAL COURT REPORTER

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OROVILLE, BUTTE COUNTY, CALIFORNIA

TUESDAY, JUNE 25, 2019

8:30 a.m.

(Confidential Grand Jury Proceedings)

-oOo-

[ROLL CALL OMITTED.]

[DISCUSSION OMITTED]

MR. NOEL: (WITNESS #1).

GRAND JURY FOREPERSON: (WITNESS #1), before --

(WITNESS #1): Yes.

GRAND JURY FOREPERSON: -- before you sit down,
we'd like to swear you.

(WITNESS #1)

having been called as a witness in
the matter now pending, having been first
duly sworn, testifies as follows:

THE WITNESS: Yes, ma'am.

GRAND JURY FOREPERSON: Thank you. Have a
seat.

EXAMINATION

BY MR. NOEL

Q. Hi, (WITNESS #1). Welcome back.

1 A. Thank you.

2 Q. When we left off, we were talking about the
3 2009 inspection of Caribou-Palermo line; do you remember
4 that?

5 A. Yes, sir.

6

7 (Exhibit 237 was marked for identification.)

8

9 Q. Okay. I want to back up now and start off,
10 then we'll come back to 2009. In front of you you have
11 Exhibit No. 237. Actually --

12 A. 157.

13 Q. Nope. There should be --

14 A. There it is.

15 Q. There you go. Do you recognize Exhibit 237?

16 A. I just know the book. I don't remember about
17 doing it or whatever.

18 Q. Do you recognize what 237 is?

19 A. Yes, sir.

20 Q. What is 237?

21 A. Looks like an air patrol in the Caribou-Palermo
22 line.

23 Q. When?

24 A. 6/07/07.

25 Q. So that would be June 7th, 2007?

26 A. Yes, sir.

1 Q. And who did that air patrol?

2 A. I believe it was me.

3 Q. And this is your report of your air patrol?

4 A. Yes, sir.

5 Q. Air patrol?

6 A. Yes, sir.

7 Q. Did you locate, in 2007, any issues, any

8 problems on the Caribou-Palermo line?

9 A. Wrote down right here, sir.

10 Q. Okay. That's page 3? 2?

11 A. I would say 2, yeah.

12 Q. Okay.

13 A. Looks like about three items I wrote down

14 there.

15 Q. What types of problems did you find?

16 A. All of the insulators on three towers were

17 flashed.

18 Q. Were those three towers, any of them 24/199,

19 27/222 or 35/281?

20 A. No, sir. 6 over 59, 7 over 60, and 7 over 61.

21 Q. Remind us again what it means for an insulator

22 to be flashed.

23 A. It's just the insulators are porcelain, and on

24 that line they're brown. So when the lightning hits the

25 insulator, the porcelain, the brown porcelain turns

26 white. That's the way you can tell it. Or you can see

1 up on the hub where the lightning hit the steel hub and
2 walked right down on the bell. And you can see where --
3 it's like if anybody's ever did any stick welding and you
4 had little burrs, you'd see that from the lightning where
5 it walked down the hub.

6 Q. Okay. Can you flip back through that and find
7 your Transmission Line Object List.

8 A. Well, all this is, the object list, it shows --
9 I don't know, maybe it's in the back. I don't see it in
10 the front here. I don't see it in this book.

11 Q. Well, this, this whole portion right here --

12 A. Yeah. All this paper is object, do you know
13 what I mean? To write down what the problem is with the
14 tower.

15 Q. Right. It's actually entitled top
16 "Transmission Line Object List"?

17 A. Yes.

18 Q. And that's the forty something pages at the
19 back?

20 A. Yes. Yeah. Absolutely.

21 Q. Okay. And can you find tower number 24/199 in
22 there, please?

23 A. Yeah. Lattice steel.

24 Q. Okay. Did you inspect tower number 24/199?

25 A. 197 or 199?

26 Q. 199.

1 A. Yes. It was completed with no problems.
2 Q. Complete. So what does that mean?
3 A. There was nothing a matter with the tower.
4 Q. Okay. Could you flip to tower number 27/222?
5 A. 222. Same thing; nothing found.
6 Q. Okay. This, again, was an aerial inspection?
7 A. Yes.
8 Q. And that means you were flying down the line
9 within a helicopter?
10 A. Yes.
11 Q. And how much time did you say you spent at
12 each?
13 A. We probably spent anywhere from five to ten
14 minutes as we hover over the structure. We hover over
15 every structure.
16 Q. Okay. And any estimation of how far from the
17 structure you are?
18 A. I could probably get on the skid of the
19 helicopter and walk on the tower, that's how close we get
20 in there.
21 Q. All right. Let's finish with the 2007. You
22 can flip that one closed and put it away.
23 A. Okay.
24
25 (Exhibit 238 was marked for identification.)
26

1 Q. Let's move on to Exhibit No. 238. Should be --
2 A. Got it right here.
3 Q. Yep.
4 A. Okay.
5 Q. And do you recognize Exhibit 238?
6 A. Yeah, just from the paper, that's all.
7 Q. Okay. And what do you recognize 238 to be?
8 A. Just says an air patrol.
9 Q. What year?
10 A. Looks like August -- or July 22nd, 2008.
11 Q. All right. Now we're looking at page 1 of
12 this, up here in the corner?
13 A. Yeah.
14 Q. It's written "(WITNESS #1)"?
15 A. Yeah.
16 Q. Who is (WITNESS #1)?
17 A. That's me.
18 Q. Okay. Do you recognize whose handwriting this
19 is on the front page?
20 A. I believe it's the clerk. It's not mine.
21 Q. Okay. Now flip it open and take a look at it,
22 please.
23 A. Second page, or how far?
24 Q. Just go through.
25 A. Okay.
26 Q. Basically the next question is going to be is

1 that an inspection report of yours?

2 A. Yeah. This here's all the problems on the line
3 right here.

4 Q. Okay. But first we need to establish that you
5 recognize that and it's an inspection that you did?

6 A. Yeah, that's all I can help you with, the
7 inspection report.

8 Q. Okay. So in 2008 you again inspected the
9 Caribou-Palermo line?

10 A. Yes.

11 Q. And what type of inspection?

12 A. Should have been another air, yes.

13 Q. Again, in the helicopter?

14 A. Yes, sir.

15 Q. Did you locate any problems?

16 A. Yeah. We have the list right here. We have
17 road work, we have burnt poles, we have road acc. work
18 that needs to be, maintain access roads, all sorts of
19 stuff.

20 Q. Okay. The list you're looking at, is that
21 what's known as the Notification List?

22 A. Yes.

23 Q. And that's the open notifications on the line
24 at the time of your inspection; correct?

25 A. Right.

26 Q. Those are the known problems that are on the

1 line?

2 A. That's right. Yeah.

3 Q. Let's flip back to that real quick.

4 A. Yeah.

5 Q. And you had inspected this line, again, in

6 2007?

7 A. Yes.

8 Q. And you had noted some problems?

9 A. Yes.

10 Q. Are those problems still open, unresolved when

11 you did the 2008 inspection?

12 A. That I don't know, sir.

13 Q. Okay. You said there were three flashed

14 insulators?

15 A. Right here is.

16 Q. Okay. Let's stay on the notification page real

17 quick. You said that the, back in 2007 that you had, you

18 located three flashed insulators -- or flashed

19 insulators --

20 A. Yes.

21 Q. -- on three different towers?

22 A. Yes.

23 Q. Do you see those listed as open notifications?

24 A. No, I don't. I don't, unless it's back in the

25 -- let me look here a minute.

26 Okay. I don't see it on here. They might have

1 done the work and fixed it.

2 Q. Okay. And then how many issues did you find
3 with the line?

4 A. I found one on looks like 8/22/08; tower 12
5 over 106 was insulator gunshots. They were gunshot.

6 Q. Okay. So that was on August 12th, 2008, when
7 you were doing the inspection?

8 A. 22nd.

9 Q. Oh, I'm sorry.

10 A. 22nd.

11 Q. August 22nd?

12 A. Yeah.

13 Q. Okay. 2008 you were doing the inspection and
14 you found insulators with gunshot wounds, for lack of a
15 better term?

16 A. Yeah. You can tell the gunshots.

17 Q. Okay. Now flip back to the notifications page
18 real quick before we go on.

19 A. You want this here or off the front?

20 Q. That page right there.

21 A. Right there.

22 Q. You had indicated something about burning or
23 fire as an open notification --

24 A. Yeah.

25 Q. -- on the Caribou-Palermo?

26 A. On structure 18 over 147, replace burnt pole.

1 Q. Do you remember a fire up the canyon --
2 A. No, sir.
3 Q. -- on the Caribou-Palermo 2008?
4 A. No. Sure don't.
5 Q. Okay. Can you flip back to your Transmission
6 Line Object List to 24/199 and tell us if you inspected
7 24/199.
8 A. Yeah. Complete, no problems found.
9 Q. And 27/222?
10 A. Completed, no problems found.
11 Q. And how about 22/189?
12 A. 22/189?
13 Q. Yeah.
14 A. Says completed, no problems found.
15 Q. Great. Okay. You can put that inspection
16 away.
17 A. This is our next one?
18
19 (Exhibit 157 was marked for identification.)
20
21 Q. Yep. Now we're going to go back to 157.
22 A. Okay.
23 Q. Which is where we left off, the 2009
24 inspection.
25 Now what type of inspection was it in 2009?
26 A. It's a detailed patrol.

1 Q. Remind us again what that means.

2 A. That's -- a ground patrol is a detailed patrol.

3 Q. Okay. What does a ground patrol entail?

4 A. It entails to go to every tower and check the

5 steel, insulators, and all the connectors and everything,

6 make sure that it's, it's up to speed.

7 Q. How long does the ground patrol generally take?

8 A. Depends on our workload.

9 Q. For instance, for the Caribou-Palermo line, how

10 long would it take you to do? How many days to do a

11 ground patrol?

12 A. It might take a month.

13 Q. As opposed to an air patrol, how long does that

14 take you?

15 A. It would take a day.

16 Q. All right. We already talked about the

17 transmission object list, line object list, now I'm

18 showing you up on the board this is page 59 of 69 from

19 your Transmission Line Object List.

20 A. Page 59, really?

21 Q. Oh, 46. I'm sorry. The whole package is 59

22 pages. That's with everything else.

23 A. Page 46?

24 Q. Right.

25 A. Okay.

26 Q. All right. This is page 46, the Transmission

1 Line Object List from the August 20th --

2 A. Yes.

3 Q. -- 2009 inspection, detailed inspection;

4 correct?

5 A. Yes.

6 Q. This is Bates stamp page PG&E Camp

7 CF0000001194; correct?

8 A. Yes, sir.

9 Q. This is the page, the 2009 page for tower

10 number 27/222; correct?

11 A. That's correct.

12 Q. Do you see 27/222 on the page?

13 A. Yes, sir.

14 Q. And did you find any problems this year with

15 27/222?

16 A. We had connectors.

17 Q. And that's this line right here in the middle?

18 A. Yes. Right there I wrote it down,

19 "Connectors," going to have to be changed out.

20 Q. Okay. "Connectors," and then what else does it

21 say there?

22 A. It was no prior on it on the last notification,

23 but you have to put completely new findings. Because

24 management had come up that they wanted to change all the

25 connectors on the line, so we had to write all the

26 connectors up.

1 Q. So any connectors you found on the line had to
2 be changed; correct?

3 A. That's correct. Yeah.

4 Q. So this is kind of an amalgamation of different
5 pages. Is there, other than they needed their connectors
6 changed, is there any similarities between these
7 different towers that are listed up here?

8 A. See the connectors up there? That was wrote
9 up. And I put "no pic," which no picture; okay?
10 Everything else on these connectors has pictures of the
11 connectors on the line. Then I also said needs an EL
12 notification. So an EL notification is a job you write
13 up so the crew has, can charge your time to it and change
14 the -- fix the problem.

15 Q. How about the towers themselves, do they have
16 anything in common?

17 A. The towers are all the same. They're just like
18 twins. They're just the same as one after another unless
19 you come to one that's configured like the tramp tower.

20 Q. Tramp tower?

21 A. This 222 is a tramp double dead end, like we
22 talked about before.

23 Q. That's a transposition tower?

24 A. Right. We discussed that.

25 Q. The other towers on this list, are these all
26 transposition towers?

1 A. No. They're just straight-line towers.

2 Q. No, this list right here that I'm showing you.

3 A. As far as -- no, no. There's --

4 Q. This is different from what you're looking at

5 on the page.

6 A. In other words, here's what you're saying,

7 tramp double dead -- suspension, suspension, suspension,

8 suspension.

9 Q. Right. Okay. But this isn't a copy of your

10 page, this is from different pages. So this is tower

11 number 20/160 listed as a tramp double dead end; correct?

12 A. Okay.

13 Q. That was a transposition tower?

14 A. That's right.

15 Q. 24/199, tramp double dead end?

16 A. You got them condensed, okay.

17 Q. Yes.

18 A. I see now.

19 Q. 27/222, tramp double dead end?

20 A. Right. Right.

21 Q. 32/260, tramp double dead end?

22 A. Right.

23 Q. 35/281, tramp double dead end?

24 A. Right.

25 Q. And all of these transposition towers need new

26 connectors?

1 A. That's correct.

2 Q. We could probably go through all the
3 transposition towers on the Caribou-Palermo that all of
4 them need new connectors?

5 A. Correct.

6 Q. Do you recall why you had to replace all the
7 connectors?

8 A. Because they were failing.

9 Q. Okay. How do you know they were failing?

10 A. We had incidents where we had burn off jumpers,
11 burn off of jumpers.

12 Q. What does that mean?

13 A. In other words, the wire comes over the tower
14 and then the other wire going out, it connects to it.
15 And that connector is right there. So the product is so
16 old that over the years they get corrosion underneath and
17 stuff, and then they, what they do is they start burning
18 on each other. And then they finally burn, and that
19 ultimate line up. I don't know, you have a picture of
20 connector, I could show you.

21 Q. We're going to get to it in just a second.

22 A. Okay.

23 Q. So this was a safety issue; correct?

24 A. Absolutely.

25 Q. And were you -- was this something you did
26 yourself or was this something you were told to do?

1 A. No, direct mandate from management.

2 Q. That you were to identify?

3 A. Identify and write up all the splices and
4 conductors -- and connectors, yes.

5

6 (Exhibit 158 was marked for identification.)

7

8 Q. All right. Showing you what's Exhibit 158.

9 A. Right.

10 Q. Obviously, that's a transmission tower. Do you
11 recognize what kind of tower that is?

12 A. Yeah, it's a tramp. These are the connectors
13 right here. You can see them right here. See them right
14 there. There's another one there. There's one there.
15 There's one there. One there. And there's -- see them
16 there? All up there, up there, and there. They're all
17 connectors.

18 Q. All right. I didn't want to interrupt you, but
19 I want you to do exactly what you just did again.

20 A. Go ahead.

21 Q. Now, you got a pen. Your finger now is a pen.

22 A. This is all connectors right here. What you
23 see is on the backside, that's connectors in there.
24 There's connector, there's connector. There's some
25 there. There's some more there. They're all connectors;
26 okay? There's some right there on the bells there. You

1 see all the connectors up there? These were all, all
2 these on these towers were all wrote up.

3 Q. Okay. So you've just used -- so we can make a
4 record of it -- you've got Exhibit 158 in front of you,
5 the photograph, you've been using the marking, you've
6 marked the connectors on that transposition tower.

7 A. Do you see what the tramp does? There the
8 conductor is coming in, it takes this wire and goes all
9 the way across to the middle. And, like I said, what it
10 does, it breaks the corn fields up. And that's the idea
11 behind it.

12 Q. Okay. Let's save this real quick.

13 And, Madam Foreperson, we'll mark that as 158A
14 and present it over the break.

15
16 (Exhibit 158A was marked for identification.)
17

18 Q. All right. Next up, this is page 3, going back
19 to the front of your inspection.

20 A. Yes.

21 Q. And this is what's entitled the "Transmission
22 Line Inspection Data Sheet"?

23 A. Yes, sir.

24 Q. What is this form?

25 A. This -- these are all the splices I wrote up.

26 Q. Okay. Let's talk more in general about the

1 form itself. What is the form itself?

2 A. The form is just -- if you find a problem on
3 the line, this is the sheet that you fill in to get the
4 work done. And you can see the notifications all wrote
5 out for them. These are the job notifications to
6 complete the work.

7 Q. Okay. Let's see, go up to the top here. We
8 have inspector name?

9 A. Yes.

10 Q. (WITNESS #1). That's you?

11 A. Yes.

12 Q. You completed your inspection on what date?

13 A. 8/31/09.

14 Q. Miles that you inspected?

15 A. Sixty-two.

16 Q. And number of structures?

17 A. Four hundred forty-four.

18 Q. At that time there were 444 structures on the
19 Caribou-Palermo?

20 A. Yeah.

21 Q. Did that change from year to year?

22 A. No. No. No. It should have been the same
23 standard 62-mile and the same structures. And I don't
24 know, does it change different here? I didn't even look.
25 Does it say here?

26 Q. You're going back to --

1 A. This says 445. In other words, it's an error.
2 There's only X amount of structures on that. It doesn't
3 change. What's it say on that one?

4 Q. And there's 237.

5 A. 237. Structures right there, 441. So what,
6 what is deal, what the deal is, the structures don't ever
7 change, it's this sheet just says of what we looked at.

8 Q. Okay.

9 A. Of how many structures we looked at.

10 Q. Okay.

11 A. That's where that comes in to play.

12 Q. And the 237 is the exhibit number?

13 A. Yeah.

14 Q. Not --

15 A. Yeah.

16 Q. All right. So all of the issues listed on this
17 Transmission Line Inspection Data Sheet are issues that
18 you found on the, during the 2009 inspection?

19 A. Yeah. This was another mandated from our
20 supervision. They wanted all splices wrote up.

21 Q. Okay. And we go on to page 10, which is the
22 second page.

23 A. Yes.

24 Q. More splices. No, this is connectors.

25 A. All the splices and stuff, I don't know, looks
26 like maybe between the connectors, splices, probably

1 wrote up maybe 200 items.

2 Q. All right. So on page 10 of 69 here, which is
3 your Data, Transmission Line Inspection Data Sheet, you
4 were replacing the connectors, you have date found. What
5 is that?

6 A. That's the date we found the connector.

7 Q. Okay. Then you have structure number listed?

8 A. Yes.

9 Q. You have connectors listed with a, there's a
10 line, an arrow going down?

11 A. Yes. That's all connectors.

12 Q. So all of this page is connectors?

13 A. That's correct.

14 Q. And estimated hours?

15 A. Forty to work on the line; 40 hours.

16 Q. Per tower?

17 A. Per tower.

18 Q. And then --

19 A. Then you've got to clear the lines, so you'd
20 have to put yes, because they don't work it hot. You
21 work it dead. And the 40 hours, a lot of people get
22 confused about it, but not, because you've got a five-man
23 crew.

24 Q. So that's five men, eight hours?

25 A. Correct.

26 Q. And notification numbers?

1 A. Yes, sir.

2 Q. And what do these notification numbers mean?

3 A. All they are is just, they make them up to get

4 ready to do a job to change connectors out so the crew's

5 got time to charge to.

6 Q. Okay. So we go down almost to the bottom of

7 this. On 8/20/09 -- am I reading this right?

8 A. Yes.

9 Q. You looked at tower 27/222?

10 A. Yes.

11 Q. And had wanted to replace the connectors?

12 A. That's right.

13 Q. Forty hours. And that should be --

14 A. That's notification 543.

15 Q. Or 542?

16 A. 542, excuse me.

17 Q. 542?

18 A. Yeah.

19

20 (Exhibit 159 was marked for identification.)

21

22 Q. Okay. Now let's move on to 159.

23 A. Where's that baby at? 240, 239 -- oh, you have

24 it right there. Are we done with this, Marc?

25 Q. Yes. Thank you.

26 All right. So you recognize Exhibit 159?

1 A. Yes, I do.

2 Q. What is Exhibit 159?

3 A. It's a work order, replace connectors.

4 Q. Explain to us how to read this.

5 A. Well, it gives line name, which is

6 Caribou-Palermo. And then the function location is

7 electric transmission line 30/190. Insulators,

8 Caribou-Palermo insulators. And also tells the

9 insulator, the equipment, is ceramic. And gives a

10 structure number. Main word center is us, Table

11 Mountain. And the planning group is Electric Line out of

12 Sacramento. They were the planning group that sets all

13 this up.

14 Q. Okay. This is standard PG&E form?

15 A. Yes.

16 Q. Is this something that you fill out?

17 A. No.

18 Q. Who fills this out?

19 A. I don't know if my clerk does this or the

20 electric operation in Sacramento does it.

21 Q. All right. So let's walk through this top to

22 bottom.

23 A. Okay.

24 Q. Top, Caribou-Palermo 27/222, replace

25 connectors?

26 A. Yes.

1 Q. And then there's an LC number?
2 A. Yes.
3 Q. Does that number match the notification number
4 on the data sheet that we just looked at?
5 A. It should.
6 Q. 542 being the last three.
7 A. Let's see if it matches. It should. That's --
8 last number is 542. Yeah. We just talked about it,
9 remember?
10 Q. Yep.
11 A. There's 542 right there. Yep, 542.
12 Q. 103995542?
13 A. That's it.
14 Q. All right. So this is a Corrective Work
15 Form --
16 A. That's correct.
17 Q. -- for the work that you noted in your 2009
18 inspection?
19 A. Yeah.
20 Q. Says reported by JTA6.
21 A. That's me, my --
22 Q. That's you?
23 A. My LAN ID for PG&E.
24 Q. What's a LAN ID?
25 A. LAN ID, so you can log into your computer and
26 they know who you are.

1 Q. Okay. Down here, 916091312, (EMPLOYEE #17),
2 AXRU.
3 A. She is our clerk.
4 Q. Okay.
5 A. (EMPLOYEE #17).
6 Q. (EMPLOYEE #17)?
7 A. Yeah.
8 Q. What's AXRU?
9 A. That's her LAN ID, also.
10 Q. "Per (WITNESS #1)"?
11 A. Yes.
12 Q. That's you?
13 A. That's me.
14 Q. "On inspection, needs to replace three-bolt
15 connector with wedge"; right?
16 A. That's correct.
17 Q. Who is Veronica L. Connerly Scott?
18 A. Good question.
19 Q. You don't know?
20 A. No, sir, I don't.
21 Q. All right. Then in 2011, "Per (WITNESS #1) on
22 8/1/11 during patrol, okay to move out two years"?
23 A. Yes. The connector was alive and well, doing
24 fine. They just wanted to change them because they did
25 have problems with them. That's what that's all about.
26 When I reassess these, that's what we do, if it's okay,

1 then we just move them out a little bit so the crew can
2 get to them.

3 Q. So 2012, "Move required end date to 11/30/15"?

4 A. Yes.

5 Q. So now it's moved out to -- doesn't have to be
6 done until 2015?

7 A. That's correct.

8 Q. All right. So you identified the, all of these
9 connectors in 2009?

10 A. Yes.

11 Q. But then they got pushed back so they didn't
12 have to be replaced until at least 2015?

13 A. That's right.

14 Q. And you had retired by that date?

15 A. Yes, sir.

16 Q. Okay. All right. Let's move on.

17

18 (Exhibit 160 was marked for identification.)

19

20 Q. Next one, 160.

21 A. 160. Same thing.

22 Q. Just different tower; correct?

23 A. Yes, sir.

24 Q. 20/160?

25 A. Yes, sir.

26 Q. This is another of the transposition towers?

1 A. Yes, sir.

2 Q. And basically the exact same thing:

3 Notification number, replace connectors, and move out to

4 2015?

5 A. Yes, sir.

6

7 (Exhibit 161 was marked for identification.)

8

9 Q. Move on to the next one, 161.

10 A. I'm missing 161. I've got 162, 163. Did I

11 pile it up already?

12 Q. Yes.

13 A. There it is.

14 Q. Stuck to the back of 160.

15 A. Gotcha. Okay. Same thing.

16 Q. And what tower is this?

17 A. Let's see, it is 24 over 199.

18

19 (Exhibit 162 was marked for identification.)

20

21 Q. 162?

22 A. Yes.

23 Q. Do you recognize 162?

24 A. Same thing.

25 Q. And what tower number?

26 A. That is 32 over 260.

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(Exhibit 163 was marked for identification.)

Q. 163?

A. That is tower 35 over 281.

Q. Okay. So all of these are Corrective Work Forms that were filled out in 2009 based upon your notifications that the connectors needed to be replaced?

A. Yes. Right. Right.

Q. Okay. So we can put all those aside. Skip over that.

All right. Now, you asked earlier, are you familiar with the *Power Line Equipment Identification Pocket Guide*?

A. Yes.

Q. Is that something you used?

A. No. I know the equipment.

(Exhibit 194 was marked for identification.)

Q. Okay. And this is 194, Exhibit 194?

A. Yes, sir.

(Exhibit 194A was marked for identification.)

Q. And next up is page 40 from 194.

1 A. Yes.

2 Q. Which should be the next one on your stack.
3 I'm simply going to ask you if you recognize what those
4 things are.

5 A. Yeah. The connectors. This is three-bolt,
6 three-bolt, single-bolt, two-bolt, two-bolt, and of
7 course single-bolt here. And the part numbers are on
8 that. That's what they're called, PGs, parallel groove
9 connector.

10 Q. Okay. When you talk about the three-bolt
11 connectors, you're talking about one of these top two on
12 194A?

13 A. Yes. This is a three-bolt. This is a smaller
14 three-bolt, then two, two, and one and one. These have
15 all been outdated and gone.

16 Q. Okay. So in your 19 -- or 2009 inspection,
17 this is the stuff, the connectors that you're looking
18 for; correct?

19 A. No. Different connector on that line. It's a
20 six-bolt, not a three-bolt. It's a six-bolt connector.
21 You don't have it on here.

22 Q. Six-bolt or six-volt?

23 A. Six-bolt connector. In other words, if you put
24 two of these together like out here, you'd have six
25 bolts.

26 Q. All right. Going back, and this is 193A, and

1 the long text at the bottom, this is similar to the rest,
2 it says, "Per (WITNESS #1) on inspection, need to replace
3 three-bolt connector"?

4 A. Yeah, there was some out there that, like you
5 said, were three, then some were six, you know. I mean,
6 just there was all sorts of quagmire going out there.

7 Q. All right. So that three-bolt connector is
8 going to be one of these?

9 A. Going to be one of these two right here, yeah.
10 And the reason they say "parallel groove," the -- you see
11 the grooves right there? You open that up, there's just
12 a groove right through here. And the wire lays in there.
13 Like I was saying about a burnt connector, a piece of
14 wire incoming comes into here and outgoing comes in here,
15 then you clamp it down; okay?

16 Q. Okay.

17 A. So when they fail, they burn this. All this
18 burns up -- you can see them all -- because they're
19 aluminum.

20 Q. Okay.

21 A. Okay.

22 Q. So hold on right there, because we've got to
23 put this on the record.

24 A. Okay.

25 Q. So we're talking about 194A, and it's up on the
26 big board. And you're talking about the --

1 A. Parallel groove connector.

2 Q. Parallel groove connector at the top. I'm
3 going to get you your drawing tool back again. And you
4 were using your hands to show us how the wires would come
5 in?

6 A. The connector comes in here like this; okay?
7 And then it could go out on this side, and like coming in
8 here; all right? And now you just use these three bolts,
9 and they run a torque wrench on them to torque them down
10 a certain specs. The book tells you what to torque them
11 down to. So they are lined out with our line standards.

12 Q. Not yet.

13 A. Blue book, in there tells you what the torque
14 connector needs to be at.

15 Q. Okay.

16 A. So anyway, they take a torque wrench and they
17 torque these down. And they also apply a lubricant.
18 It's not a lubricant. It's kind of like an antioxant
19 (phonetic) like you put on your battery cable so you
20 wouldn't get the green stuff growing on it.

21 Q. So you don't get oxidation?

22 A. Thank you. That's what you put in there. Then
23 clamp the deal, and I torque them down. And that's how
24 you do it.

25 Q. All right. So you've drawn two red lines to
26 represent --

1 A. Incoming, outgoing.
2 Q. -- incoming, outgoing conductors?
3 A. That's what you see on the tramp tower.
4 Q. Okay. Then finally you were referring to you
5 crank these down --
6 A. Like a torque wrench if you're doing heads on
7 an automobile or anything.
8 Q. Talking about the nuts?
9 A. Yeah.
10
11 (Exhibit 194A1 was marked for identification.)
12
13 Q. All right. Great. And we'll save this. It's
14 going to be 194A1. And we'll print that out and have it
15 this afternoon.
16 Okay. So when you're looking, looking for
17 connectors when you're doing the 2009 inspection,
18 basically these are what you're looking for?
19 A. That's correct. Yes.
20 Q. And you said there's some bigger ones?
21 A. There's all sorts of -- I mean, it's a, kind of
22 a mirage dealy up there. I mean there's all sorts of
23 stuff that's on that old line.
24 Q. Got to get out of that.
25 All right. Now 235.
26

1 (Exhibit 235 was marked for identification.)
2
3 A. 235, got her. All right. I think I do. Okay.
4 Q. Do you recognize 235?
5 A. Yes.
6 Q. What is 235?
7 A. It's a notification form, Corrective Work Form,
8 electric transmission line.
9 Q. Is this something that you would have
10 completed?
11 A. No.
12 Q. Who would have completed this?
13 A. I believe my clerk does this.
14 Q. And can you tell us, is this for a specific
15 tower?
16 A. Yeah, let me look up here. Looks like 24 over
17 199, replace connectors.
18 Q. All right. There's a purple notification
19 number on there?
20 A. That's correct.
21 Q. That should match with your Data Line
22 Inspection Sheet?
23 A. That's correct.
24 Q. Now, what I want to go back to is actually the
25 last two pages of this. Since we talked last, you told
26 us you took pictures when you --

1 A. Yeah.

2 Q. And I have page 3 of 235. Tell me what you
3 see.

4 A. I can't see nothing. Oh, I took a number of,
5 the tower number, 24 over 199. And this is the sat
6 number. In other words, if you put it in your computer,
7 pull it up, give you the tower location, everything.

8 Q. That's the 40667369 number?

9 A. That's correct.

10 Q. All right.

11 A. That's the sat number. And this is the tower
12 number. It would be the 24th mile, tower 199.

13 Q. Cool.

14 A. All right.

15 Q. And then the next picture, next page behind
16 that?

17 A. Another tramp.

18 Q. This should be the same tower; right?

19 A. Yes. Looks like it anyway.

20 Q. So you said you take pictures to document the
21 problems?

22 A. That's right.

23 Q. So what problems do you see in this picture?

24 A. Well, it's all connectors again. See them
25 there? They're at every, every wire that's dead. You
26 can see right through there. That's all connectors. And

1 there's some in here. There's some right here.

2 Q. Let me activate your pen.

3 A. Can you move the tower to center it up any?

4 Q. Nope. I can't change your photography.

5 A. Well, when you're in a helicopter, it's --

6 you're going -- you know, you're doing all sorts of

7 stuff.

8 Q. You have your red pen up there. If you want to

9 mark your connectors.

10 A. Connector there, one there, one there. I can't

11 really -- looks like one there, one there. I don't know

12 why that -- one there, one there, and that looks like

13 there's one there. And I don't see anymore. Looks like

14 maybe there might be one there. That's about all I can

15 see right now. Like you said, the picture is not very

16 good.

17 Q. So you've --

18 A. I've identified.

19 Q. Shoot. Now we have to do it again.

20 A. I see one there. Now it's black.

21 Q. Black doesn't work too well. Let's go with

22 red. Red stands out.

23 A. Okay.

24 Q. There we go. Red.

25 A. Let's see, there's one there. I can't tell

26 that there. Probably some here. And then there's

1 probably some over there, over on this other phase.
2 That's about all I can do for you.
3 Q. All right. Save that real quick.
4 A. And I want to correct you on this.
5 Q. Okay. Go ahead.
6 A. The transmission troublemen made these out.
7 Q. Okay.
8 A. To change that, to let you know.
9 Q. Okay.
10 A. I thought -- I just remembered that we did do
11 these, but these are old, these are kind of old. I think
12 -- what is this?
13 Q. 2009.
14 A. '09, yeah.
15 Q. Yeah.
16 A. Had been a while back.
17 Q. All right.
18 A. Do you want to know anything about the tower?
19 Q. Other than the connectors, is there anything
20 else you see wrong with this tower?
21 A. Well, you see right here where these steel
22 deals, these are all dead end stuff?
23 Q. Right.
24 A. We always look at them. Okay. Anyway, we
25 always looked at them. And all, all the attachments that
26 were dead ended, we made sure that they were in good

1 shape.

2 Q. In case we haven't done it before, can you tell
3 us what dead ended means?

4 A. It's just where the, these bells here secure
5 here. And then you can see where the conductor comes in,
6 stops right at the bells. That's called dead ending the
7 conductor.

8 Q. Okay. Any other problems that you can see with
9 this tower?

10 A. Not that I know of. I think the steel was all
11 pretty good.

12

13 (Exhibit 236 was marked for identification.)

14

15 Q. Okay. All right. Let's move on to 236. Do
16 you see No. 236?

17 A. Yeah, I got it right here. Same thing.

18 Q. And, again, is this something you would have
19 filled out in 2009?

20 A. Yeah, 27 over 222, replace conductors.

21 Q. And the notification number, that 542 number
22 that we looked at before?

23 A. Yes, sir, that's correct.

24 Q. All right. I want to go to the back page of
25 this --

26 A. Yes.

1 Q. -- tower.

2 A. Okay.

3 Q. And the photograph.

4 A. You can see all the connectors. See them

5 there? There's one there, there's another one. And the

6 bar, all the way across the bar has got connectors. All

7 the way. And there's some here. And probably over on

8 this other, other phase. But we just took a picture to

9 make sure that they could see what, what we had out

10 there. And basically that connector is no different than

11 the one over on this arm. It's all irrelevant. It's all

12 the same thing.

13 Q. Right.

14 A. But, you know, being a lineman, you dial into

15 that, you understand that.

16 Q. Okay.

17 A. And you'll have this on the notification page.

18 Q. So we're looking --

19 A. You can see it right there. There's one

20 connector right there.

21 Q. Right here?

22 A. Yeah. That's it right here. Right there.

23 Q. Going to take a minute to start it up. Won't

24 let me move slides.

25 GRAND JUROR #17: Sir, he's blocking our view.

26 We'd like to be able to see what he's talking about.

1 THE WITNESS: I can't tell because there's
2 steel in the way here. There's probably one there.

3 Q. (By MR. NOEL) Let's step back so they can see.

4 A. There's one there, too.

5 Q. All right. So you're marking again the
6 connectors on 27/222 with your red pen?

7 A. Yeah.

8

9 (Exhibit 236A was marked for identification.)

10

11 Q. And we will save that and print that as 236A.

12 Now, looking at 27/222, which side is going to
13 Caribou Powerhouse?

14 A. That I don't know unless I can see the number.

15 The number tells me -- designates which is going and --
16 you know, I mean, tells me which is closest to the
17 powerhouse or if I'm closest to the substation.

18 Q. Okay. Now I want to focus on this arm and
19 insulator right here.

20 A. Yes.

21 Q. Does that look correct to you?

22 A. Yes, it is. That's the old-style framing.

23 Q. Do you see any issues with that?

24 A. No. The insulators are all intact. In fact,
25 the insulation is over insulated. There's one, two,
26 three, four, five, six, seven, eight, nine, ten. And

1 really in the book it only calls for eight. So
2 everything on this tower is over insulated.

3 Q. Okay.

4 A. Okay? And these here are called prono-shields
5 (phonetic), as I told you before. This is all shielding
6 here.

7 Q. Now, before you became a troubleman, you were a
8 lineman; correct?

9 A. Yes.

10 Q. You were a line foreman?

11 A. Yes.

12 Q. And how long did you do that for?

13 A. I did the line foreman for five years.

14 Q. How long were you a journeyman lineman?

15 A. I was a journeyman lineman for 40 years.

16 Q. As part of that, did you change out insulator
17 strings on transmission lines?

18 A. Yes, sir.

19 Q. You also said you taught at the PG&E?

20 A. I taught five years in Livermore training
21 school, yeah, apprentice linemen school.

22 Q. Did you teach how to change out those insulator
23 strings?

24 A. Yes.

25 Q. Okay. So you know what it looks like, new
26 insulator string looks like, and how it's supposed to

1 fit?

2 A. Yes, sir.

3 Q. Now, we'll put that aside and we'll move on to
4 the 2010 inspection.

5 A. Okay.

6

7 (Exhibit 164 was marked for identification.)

8

9 Q. And that is Exhibit No. 164. It should be
10 right there in front of you.

11 A. Got it.

12 Q. Look at it very briefly for us and tell me if
13 you recognize it.

14 A. Yeah. I just recognize all the connectors. I
15 wrote up on 8/6/2010 on tower 10 over 86 we had flash
16 bells on that tower.

17 Q. Okay. So let's back up and do the basics
18 first.

19 A. Okay.

20 Q. You're looking through the packet, it's 64
21 pages of -- I believe 64 pages?

22 A. Yeah.

23 Q. Exhibit No. 164. And you recognize that
24 packet; correct?

25 A. Yeah, I just, I just recognize the paperwork.
26 I mean, beyond that I don't, you know.

1 Q. Okay. And this is a -- the 2010 inspection;
2 correct?
3 A. Yes.
4 Q. What type of inspection?
5 A. Air patrol.
6 Q. So this is back in a helicopter?
7 A. Yes.
8 Q. 2009 was a ground patrol, now you're back in
9 the helicopter 2010?
10 A. Right.
11 Q. All right. And you did this inspection?
12 A. I see my name on it; I must have.
13 Q. All right. So is that your writing, too?
14 A. Yes, it is.
15 Q. First I want to ask you, up here on the front,
16 who is ESB4?
17 A. That was my supervisor, (EMPLOYEE #3).
18 Q. What was (EMPLOYEE #3's) position with PG&E?
19 A. He's a transmission supervisor.
20 Q. All right. Let's flip through this a little
21 bit.
22 A. Okay.
23 Q. First, you have a, this page that -- several
24 pages that are just a spreadsheet?
25 A. Right.
26 Q. What is that?

1 A. That is all the thing, all the stuff on the
2 connectors and sleeves we wrote up on the line.

3 Q. Is there a term for those?

4 A. As far as what, sir?

5 Q. That, that they would call each one of these
6 individual things, that you can recall?

7 A. There would be just connectors and sleeves.

8 Q. Okay. But each line of this data?

9 A. As far as -- what are you looking for?

10 Q. Have you heard the term "open notifications"?

11 A. Yes.

12 Q. Okay. What is open notification?

13 A. It would be one that's not, it's not completed
14 or whatever, you know, filled out and assigned a job
15 number to it. Like that 30 number where it says "order."
16 That's a job number there.

17 Q. So when you find problems -- and that's going
18 back to 236 and 235 --

19 A. Yeah.

20 Q. -- you fill out a notification sheet?

21 A. That's right.

22 Q. With a notification number?

23 A. Yeah.

24 Q. And then until that notification, until that
25 job is completed, those are considered open
26 notifications?

1 A. That's right.

2 Q. Is that correct?

3 A. That's right.

4 Q. Okay. So 2010, what is this first couple of
5 pages that just list all of these different notifications
6 that you had started in 2009?

7 A. There are, there are things in -- on the line
8 that need to be fixed.

9 Q. Okay. So all of these things are problems with
10 the line that have not yet been fixed?

11 A. That's the way I'm -- see, right here you can
12 see the job number right there. It says "order." Three
13 job numbers to change the insulators out, I believe.
14 Yeah.

15 Q. Okay. So the job -- the order is, means that
16 it's scheduled or that it's being done or what?

17 A. No, it's a work order they give the crew, and
18 the crew goes out and works on it. Like I said, it's a
19 device to charge, charge your time to. It's a job order.

20 Q. And then page 5 of 62, that continues?

21 A. Yeah. It's all the same thing.

22 Q. Right. For instance, down here, here's 27/222?

23 A. Yeah.

24 Q. There's that 542 number again?

25 A. Yeah.

26 Q. What's this date, 8/30/11?

1 A. That might have been the first time we turned
2 it in. I'm not real sure.

3 Q. Okay. So the work had not been done, the
4 connectors had not been replaced on 27/222 by the time
5 you did the inspection in 2010?

6 A. As far as I know, no.

7 Q. And then 24/199, same thing --

8 A. Yeah.

9 Q. -- correct?
10 20/160, up here, same thing?

11 A. Yeah.

12 Q. Now, moving on to page 7 of the 62, this is the
13 Transmission Line Object List.

14 A. Okay.

15 Q. And I guess we already covered it --

16 A. Yeah.

17 Q. -- because we went back to other stuff. But we
18 were talking about the numbering system?

19 A. Yeah.

20 Q. Can you explain the numbers up there?

21 A. Tells you the miles and the tower number.
22 That's all.

23 Q. Okay. So 000, slash, 001, what would that be?

24 A. That would probably be either right out of the
25 substation or right out of the powerhouse. That would be
26 the first tower out.

1 Q. Okay. The very first tower?

2 A. Yes, sir.

3 Q. All right. Now looking again, this is similar
4 to what we did with the 2009 inspection. Each one of
5 these, 20/160, 24/199, 27/222, 32/260, and 35/281, you
6 identified those previously as transposition towers;
7 correct?

8 A. Yes.

9 Q. On each one of these, what were your findings
10 in 2010?

11 A. You see right there, "preexisting condition
12 checked." So the connectors had to still be there or the
13 splices.

14 Q. That is the question. What does that mean,
15 "preexisting condition checked"?

16 A. In other words, it's still there, hasn't been
17 fixed.

18 Q. Okay.

19 A. Like on all this, all this stuff you got here.
20 Probably all this stuff here, too.

21 Q. All right.

22 A. Yeah.

23 Q. Do you know what this "notes 02 survey" with a
24 number means?

25 A. No, sir, I do not.

26 Q. How are you doing this morning?

1 | A. I'm ready to --

2 Q. Ready to take a break?

3 A. Can we take a break?

4 MR. NOEL: Madam Foreperson?

5 GRAND JURY FOREPERSON: Yes.

6 MR. NOEL: Let's go ahead and take a break.

7 THE WITNESS: I appreciate it.

8 GRAND JURY FOREPERSON: Fifteen minutes.

9 MR. NOEL: If you need one, just let me know.

10 THE WITNESS: I definitely will. It's cool;
11 doing fine.

12 MR. NOEL: Going by pretty quick. So let's
13 take a 15-minute break.

14 (Break taken.)

15 GRAND JURY FOREPERSON: All members of the
16 Grand Jury are present and ready to proceed.

17 MR. NOEL: Back on the record?

18 GRAND JURY FOREPERSON: Back on the record.

19 Q. (By MR. NOEL) All right. (WITNESS #1), before
20 we go forward, I need to clear up a couple of things. We
21 have up on the screen 236, the photograph you took that
22 was attached to the 2009 notification, correct, of
23 27/222? I want to make sure we understood this. Did you
24 take this photograph from the ground or the air?

25 A. That's from the ground.

26 Q. Okay. So 2009 was a ground inspection?

1 A. Yeah.

2 Q. So the photographs that were 235 and 236 would
3 have been taken from the ground?

4 A. That's right.

5 Q. I think maybe one of us misspoke earlier and
6 said helicopter, so created some confusion.

7 Now going back when we were talking about
8 helicopters earlier and the helicopter inspections and
9 you said you'd probably spend 10 to 15 minutes on each
10 tower?

11 A. Yeah.

12 Q. And -- but you say you do the inspections in
13 one day?

14 A. Yes.

15 Q. Okay. Just doing the quick math while we were
16 gone, I think you said there's somewhere around 445
17 towers on --

18 A. Yeah.

19 Q. -- on the --

20 A. (Nods head.)

21 Q. So --

22 A. Yeah, it's probably -- we'd spend 10, 12 hours
23 in that helicopter.

24 Q. Okay.

25 A. Yeah.

26 Q. All right. So I wanted to make sure the math,

1 because I'm not very good at math, but it seemed like a
2 real high, 445 would be four thousand --

3 A. It takes time, you know. It takes, it takes
4 time to do it. It depends on what kind of weather we run
5 into. The canyon, too; usually there's high wind in
6 there and tough to hover over one, one structure.

7 Q. Instead of putting a time, minutes, on it,
8 instead of saying we spent 5 minutes, 10 minutes, 15
9 minutes at each structure, can you describe basically or
10 summarize how much time you spent at those structures?

11 A. It could vary on what we see, what we find, you
12 know. It could be 1 minute, 10 minutes, 20 minutes, you
13 know. Depends what we find. After a while, after over
14 the years you fly the line so much, I mean, you get to
15 know it, do you know what I mean? You get to know where
16 all the problems are and where, you know, so you can
17 pretty well zero in on things.

18 Q. Okay. Now, you said that you were looking,
19 that one of the things you'd look at, especially from the
20 helicopter, is the cold end attachments?

21 A. Yeah.

22 Q. What about the suspension attachments?

23 A. We look at all that stuff, everything.
24 Everything is -- we cover everything. The shoes, the
25 connectors, all the hardware. We look at all the
26 hardware, see if any of the bracing is loose or bolts are

1 missing. We cover it all.

2 Q. Okay. Real quick, back to 164, the 2010
3 inspection.

4 A. Okay. All right.

5 Q. And the Transmission Line Inspection Data
6 Sheet, page 2.

7 A. Yes.

8 Q. How many problems did you find with the line in
9 2010?

10 A. I found one.

11 Q. And what was that?

12 A. That was flashed bells.

13 Q. And then going back to the top up here?

14 A. Sixty-two miles; 440 -- 444.

15 Q. 444?

16 A. Yeah.

17

18 (Exhibit 165 was marked for identification.)

19

20 Q. All right. So let's move on now to 165.

21 Should be next up on that stack right there in front of
22 you.

23 A. 64 --

24 Q. Okay. Go ahead, take a minute to look at 165.

25 A. Okay.

26 Q. I'm going to ask you if you recognize the

1 exhibit.

2 A. I just, I just recognize the paper, that's --

3 you know.

4 Q. Okay.

5 A. I've seen it before.

6 Q. You recognize what it is?

7 A. Yeah, that's all.

8 Q. What is Exhibit 165?

9 A. Just Transmission Line Inspection Data Sheet.

10 Q. Okay. Is this another transmission line

11 inspection of the Caribou-Palermo line?

12 A. Yes.

13 Q. And is this another inspection that you did?

14 A. Yes.

15 Q. And what year is this?

16 A. That's '11.

17 Q. So this is the 2011 inspection?

18 A. Yeah.

19 Q. What type of inspection was 2011?

20 A. I know it looks like an air.

21 Q. All right. Let's go back to page 1, if you

22 could. And does this indicate what type of inspection it

23 is?

24 A. Yes.

25 Q. What does it indicate?

26 A. Says air patrol.

1 Q. And who is (EMPLOYEE #5)?

2 A. He is our relieving supervisor.

3 Q. What kind of supervisors?

4 A. Relieving.

5 Q. Relieving supervisor? What does that mean?

6 A. That means when our local supervisor goes on

7 rotation or vacation, this gentleman here took the yard.

8 He was a supervisor, temporary supervisor for the yard.

9 Q. Okay. Now skipping to page 3 of 165, again,

10 the notifications, the open notifications page?

11 A. Okay.

12 Q. Do you see that?

13 A. Yep.

14 Q. Now, all of these are notifications that are

15 still open from your 2009 inspection; correct?

16 A. Yep. That's correct.

17 Q. And specifically what I want to know is on the

18 right-hand column it says notes?

19 A. Yes.

20 Q. What do these notes mean?

21 A. We moved them out two years.

22 Q. Moved what out?

23 A. The replace bells, as far as -- as far as I

24 know, that's what it was for. Beyond that, I don't know.

25 Q. All right.

26 A. It's been so long since I looked at all this

1 stuff.

2 Q. So middle line for 6, tower 653, replace

3 connectors, looks like it says three years?

4 A. It could -- it's two.

5 Q. Is that two?

6 A. Yeah.

7 Q. Okay. And then down two years, two years, two

8 years. Do you remember why you pushed those repairs out

9 two years?

10 A. No, sir, I don't.

11 Q. And on to page 6, same thing?

12 A. Yeah, I don't know.

13 Q. Again, this page has our 27/222 on it?

14 A. Yeah.

15 Q. And do you know what this L-type shape there

16 means?

17 A. Just an arrow. That's all it is.

18 Q. Okay. So what does the arrow indicate?

19 A. Just two years. It's coming down all the way

20 down from the top notes, two years.

21 Q. The other one, 24/199, same thing?

22 A. Yeah, same thing.

23 Q. 35/281 -- no, we're not to that page yet.

24 20/160. So all of these replace connectors got kicked

25 out another two years?

26 A. That's what I understand. I really don't know.

1 It's been so long, like I said, since I've seen all this
2 stuff, so --

3 Q. Okay. You don't remember why, you just
4 remember that your notes indicate that it was kicked
5 out --

6 A. Yeah.

7 Q. -- another two years?

8 A. Pretty much, yeah.

9 Q. And this is your Transmission Line Object List?

10 A. Yes.

11 Q. And what was the date that you did this
12 inspection?

13 A. Look it over. Page 48, is that what it is?

14 Q. Page 46.

15 A. Forty-six. Looks like '11, 2011.

16 Q. Yep.

17 GRAND JUROR #2: Can you fix his microphone?

18 MR. NOEL: Absolutely.

19 THE WITNESS: How is that?

20 GRAND JUROR #2: Thank you.

21 Q. (By MR. NOEL) All right. And this is page,
22 page 46 of the Transmission Line Object List, which is
23 page 53 of 63 in Exhibit 165. And looking at the line
24 there for 27/222?

25 A. Yes.

26 Q. And you inspected 222 this, in this cycle?

1 A. Yep. Preexisting, connectors again.

2 Q. So that's the ones that you noted back in 2009;
3 correct?

4 A. Yeah. As the books go along, as you write this
5 stuff up, you've seen this and you're in this book, if
6 nothing has been done, it's preexisting condition.

7 Q. How do you know about the preexisting
8 conditions?

9 A. Because I ran the line.

10 Q. Okay. How about going back in 2007, which
11 appears to be the first time you inspected this line?

12 A. Yes.

13 Q. When you went up to do your inspection, how did
14 you know about any of the preexisting conditions?

15 A. Because I've worked on the line with General
16 Construction before.

17 Q. How about the person that came in after you,
18 took your place after you retired?

19 A. No idea who the gentleman was.

20 Q. But how would they know about these preexisting
21 conditions?

22 A. I have no idea.

23 Q. Okay. All right. Now let's go back to page 2
24 of Exhibit 165, the Deadline Inspection Data Sheet. And
25 did you locate any issues on the Caribou-Palermo line in
26 2011?

1 A. Yeah, there was broken flash bells on tower 8
2 over 68.
3 Q. Okay.
4 A. And it has a notification number.
5
6 (Exhibit 137 was marked for identification.)
7
8 Q. Okay. Now let's go ahead to 137, which I have
9 to get out of this different stack. Wrong one.
10 I'm sorry, I forgot to pull that one.
11 Now if you could look at Exhibit 137.
12 A. Yeah.
13 Q. Glance through it and let me know if you
14 recognize 137.
15 A. Yeah, that's my writing. No, (WITNESS #20's)
16 writing. Excuse me, that is, that's (WITNESS #20),
17 (WITNESS #20).
18 Q. Okay. Keep going through it.
19 A. So where are we going, back to all of it, list?
20 Okay.
21 Q. Go to the Transmission Line Object List, look
22 through it. And specifically -- here, let me show you.
23 A. Had to stop due to the Poe fire.
24 Q. Okay.
25 A. Yeah.
26 Q. There we are.

1 A. Okay. Got it. I'm not real sure how this went
2 down, you know, but (WITNESS #20) got in a motorcycle
3 accident and lost a leg.

4 Q. Okay. First, let's identify what 137 is.

5 A. Just another air patrol, another air patrol on
6 the same line.

7 Q. That's the question for you.

8 A. Yes.

9 Q. Okay. And what year is this?

10 A. It says 2012.

11 Q. Okay. Was this an inspection done by you?

12 A. I don't even remember. I see my name on there,
13 so I must have did part of it.

14 Q. Okay. What makes you think you did part of it
15 as opposed to --

16 A. I'm just saying I remember (WITNESS #20) got
17 hurt, he got ran over on his motorcycle and lost a leg.

18 Q. Who is (WITNESS #20)?

19 A. Pardon?

20 Q. Who is (WITNESS #20)?

21 A. (WITNESS #20), he was my fellow transmission
22 troubleman.

23 Q. So you looked through the exhibit, and at some
24 point in the inspection it switches from (WITNESS #20's)
25 name to your name?

26 A. Yeah.

1 Q. But you don't remember why it's --
2 A. You know --
3 Q. -- you would have taken this over?
4 A. Sure don't.
5 Q. Do you remember completing this inspection?
6 A. No, I don't even remember completing any of
7 these inspections, to be honest with you.
8 Q. All right. So we're looking at the
9 Transmission Line Object List. About page 19 is where it
10 switches to your name --
11 A. Okay.
12 Q. -- correct?
13 A. Yeah, I think so. Yeah.
14 Q. Then on all the previous years you wrote your
15 name?
16 A. Right.
17 Q. This year looks like that name is stamped on
18 there. Do you remember why?
19 A. The only thing I can think of is they got us
20 stamps because the paperwork is just really over and over
21 and over, whatever you want to call it. Repetitive,
22 whatever.
23 Q. Do you remember during your career having a
24 stamp?
25 A. Yeah, they got me a stamp, then they took them
26 back because they said that we couldn't use stamps

1 anymore, we had to use our name and put the date down.

2 Q. Okay.

3 A. Everything had to be handwritten.

4 Q. Now, going to page 45 of the Transmission Line

5 Object List, which is page 52 of 63 on Exhibit 137.

6 A. Okey dokie.

7 Q. All right.

8 A. Still back on 222 again?

9 Q. Yep.

10 A. Now, what's the scoop there?

11 Q. What do you see on 222?

12 A. Preexisting conditions exist.

13 Q. Okay. And what would that preexisting

14 condition be?

15 A. Probably splicer connectors.

16 Q. Okay. Did you do this, the inspection?

17 A. My name's on it.

18 Q. And what date?

19 A. Looks like '12.

20 Q. Looks like what?

21 A. '12, 2012.

22 Q. Okay. No, the date.

23 A. The date?

24 Q. Yeah.

25 A. Says 2012 on it.

26 Q. The actual day that it was done.

1 A. It doesn't say. Oh, it says 06. Yeah, 6.
2 8/6.
3 Q. So August 6th, 2012?
4 A. Yeah.
5 Q. And this is going backwards, page 4 of 137,
6 that notification list?
7 A. Yeah.
8 Q. That's all the open notifications?
9 A. Yes.
10 Q. Continue with the connectors and sleeves?
11 A. Yep.
12 Q. And page 7, continuing with the open
13 notifications?
14 A. (Nods head.)
15 Q. Right up here at the top, that's 27/222 again?
16 A. Yep.
17 Q. So shows that it's still open for the
18 connectors?
19 A. Yep.
20 Q. Down here we have 35/281. Same thing; is that
21 correct?
22 A. Yep.
23 Q. 32/260?
24 Remember, we have to answer out loud so she can
25 take it down.
26 A. Yes. It's all the same of what you put in all

1 before.

2 Q. So all of those notifications that you did in
3 2009 are still open in 2012?

4 A. Yes. Yep.

5 Q. And then there's page 2, going back forward,
6 the Data Inspection -- Line Inspection Data Sheet?

7 A. Yeah. Says no problem found, by (WITNESS #20).

8 Q. Do you see your writing on there anywhere?

9 A. Yeah. (WITNESS #20) filled the top out as he
10 started the line, I believe, and then I finished it, and
11 I put no problems found.

12 Q. Okay. So the "no problems found" is your
13 writing?

14 A. Yes.

15 Q. Okay. Do you know whose signature that this
16 is?

17 A. No, I sure don't.

18 Q. The 8/28/12?

19 A. No, don't know.

20 Q. Do you know who your supervisor was? Do you
21 remember who your supervisor was?

22 A. You know, I don't know. Could have been
23 (WITNESS #12), but I'm not real sure.

24 Q. Okay. And do you know who EEP4 is?

25 A. Yeah, that's (WITNESS #21) 4. That was our
26 clerk.

1 Q. What was her name?
2 A. (WITNESS #21).
3 Q. (WITNESS #21). Her last name was?
4 A. (WITNESS #21), I think it's (WITNESS #21), but
5 I am not real sure. I don't remember.
6 Q. Do you remember (WITNESS #21)?
7 A. Yeah, there you go. That's her name.
8 Q. Same person?
9 A. Yeah, same thing.
10 Q. All right. And, let's see, so 2012 you found
11 no problems with the line?
12 A. No. No. Nope.
13
14 (Exhibit 166 was marked for identification.)
15
16 Q. All right. Let's skip forward to 2013. This
17 is Exhibit 166. Do you see Exhibit 166?
18 A. Got it.
19 Q. Again, do you recognize what Exhibit 166 is?
20 A. Yes, an air patrol.
21 Q. And is this an air patrol that you did?
22 A. What's that?
23 Q. Is this an air patrol that you did?
24 A. Yep.
25 Q. And an air patrol what of?
26 A. Of Caribou-Palermo 115.

1 Q. Do you remember -- or does it reflect when you
2 did this air patrol?

3 A. Yeah. Says '13, 8/15/13.

4 Q. All right. So August of '13?

5 A. Yes.

6 Q. Going to page 3, the open notifications, and
7 skip ahead to page 4 and page 5, I think. Go through it
8 really quickly. All the notifications from 2009 still
9 open?

10 A. Sure.

11 Q. So when you get to page 5 and go down that list
12 and you find 27/222, it shows that the "replace
13 connectors," that that is still open; correct?

14 A. Yep.

15 Q. So right here, 24/199, same thing?

16 A. Yes. It's just getting repetitive, that's all.

17 Q. All right. Now, we're page 51 of 62, and your
18 Transmission Object Line List. And I'm trying to
19 shortcut this as much as possible, believe me.

20 A. 51?

21 Q. I'm sorry, that would be page 45 of the object
22 list.

23 A. Okay.

24 Q. 51 of 62 for the exhibit.

25 A. Okay.

26 Q. 27/222. Can you find that tower on this list?

1 A. Sure.

2 Q. What's the condition of 27/222?

3 A. Same thing, preexisting.

4 Q. All right. So you inspected this tower again?

5 A. Yes.

6 Q. Go back to page 2 of that, the Data Line --

7 Inspection, Transmission Line Inspection Data Sheet, very

8 front, take a look at that and tell me if you filled that

9 sheet out.

10 A. Yes, I did.

11 Q. And what problems did you find on the

12 Caribou-Palermo?

13 A. We had bell replacements and aerial markers

14 installed.

15 Q. What does bell replacements mean?

16 A. Insulators.

17 Q. And what are aerial markers?

18 A. Towers and the miles.

19 Q. And, again, this time 445 structures?

20 A. Yeah.

21 Q. Do you know where the extra structure came

22 from?

23 A. No, I don't. I sure don't.

24 Q. And who is your supervisor? Whose signature is

25 on there?

26 A. I have no idea who it is. Oh, (EMPLOYEE #16).

1 Q. Who is (EMPLOYEE #16)?
2 A. He's one of the transmission troublemen. He's
3 another relief supervisor.
4 Q. How long was (EMPLOYEE #16) your supervisor?
5 A. No idea. They kind of come and go.
6 Q. What date did you complete this inspection?
7 A. It says that we did it -- looks like '13.
8 Q. Specific day and month?
9 A. 8/15.
10 Q. So August 15th, 2013?
11 A. Yeah.
12 Q. Cool.
13 All right. Last one. You retired at the end
14 of 2014; right?
15 A. Yep.
16 Q. So 2014 is going to be the last inspection of
17 the Caribou-Palermo line that you did?
18 A. Yes.
19
20 (Exhibit 167 was marked for identification.)
21
22 Q. You have in front of you Exhibit No. 167. Do
23 you recognize 167?
24 A. Yes.
25 Q. What is 167?
26 A. It's, I believe, a ground patrol. Yeah.

1 Q. All right. Is this a -- you said it's a ground
2 patrol?

3 A. Or detail, whatever you want to call it.

4 Q. Okay. Well, I want to use your terms.

5 A. Well, it says right there, sir. "Transmission
6 detail inspection." See that right there?

7 Q. You're talking about the handwriting on the
8 front page?

9 A. No, talking about right there. Detailed
10 inspection, overhead. O-H is overhead.

11 Q. You're talking about on page 1 of 60?

12 A. Yeah.

13 Q. This is a detailed inspection. Do you remember
14 when this was done?

15 A. No, sir.

16 Q. Did you do this inspection?

17 A. I think I did half of it and (WITNESS #23) did
18 the other half.

19 Q. Who is (WITNESS #23)?

20 A. He's another lineman at Table Mountain on the
21 crew.

22 Q. Why did (WITNESS #23) help you with this
23 inspection?

24 A. Because up in the canyon is rugged country, and
25 at 65 I don't think I can crawl over many more rocks.

26 Q. So how did (WITNESS #23) help you?

1 A. He took the tough stuff and I had the easy
2 stuff.
3 Q. What do you mean the tough stuff?
4 A. Well, rocks, you know. If you've ever been in
5 the Feather River Canyon, you know what's up there.
6 Q. Problem is we got to explain it. We have to
7 put it in words where the lady over here with the
8 typewriter can --
9 A. Well, I did the easy stuff from Table Mountain
10 to Palermo sub, and he did the tough stuff from Table
11 Mountain to Caribou Powerhouse, which is nothing but
12 rock. It's pretty tough up in there.
13 Q. Does that involve hiking?
14 A. Walking. Everything you got to walk to.
15 Q. Okay.
16 A. You can't get a vehicle to it.
17 Q. How come?
18 A. Because when the line was built, it was built
19 with manpower and mules. That line's 105 years old.
20 Q. What about Camp Creek Road?
21 A. Yeah, you can drive a little bit over Camp
22 Creek Road, that's about it.
23 Q. This was the last year of your career; right?
24 A. Yes.
25 Q. About the last four months of your career?
26 A. Yes.

1 Q. You said that, that you needed help just
2 because at the age at this time?

3 A. Yeah. I was getting old. I couldn't -- I
4 don't have no more wheels.

5 Q. Were you having other health problems?

6 A. Yeah. I had two knee replacements, two back
7 operations, and a hip replacement. I think I'm kind of
8 wore out.

9 Q. All right. So let's walk through this.

10 A. Sure.

11 Q. Page 4, the notifications page again -- or
12 we're back to notifications. There's several pages of
13 notifications; correct?

14 A. Yes.

15 Q. The open notifications?

16 A. Should be still the same. Okay.

17 Q. And these are still your 2009 notifications?

18 A. Yep, still there.

19 Q. 27/222, still haven't replaced the connectors?

20 A. Still there.

21 Q. 24/199, still haven't replaced connectors;
22 correct?

23 A. Yes.

24 Q. 35/281, still haven't replaced the connectors?

25 A. Yep.

26 Q. So --

1 A. Yeah, the books don't lie, that's for sure.

2 Q. So now we're five years down the line and those

3 connectors that you were told to identify to replace in

4 2009 are still on the poles?

5 A. Sure.

6 Q. Or on the towers?

7 A. Yep.

8 Q. Okay. And now, going to object list -- we

9 already talked about (WITNESS #23).

10 A. Yes.

11 Q. You had said (WITNESS #23) was a lineman;

12 correct?

13 A. Yes.

14 Q. (WITNESS #23) wasn't a troubleman?

15 A. No. He was a lineman.

16 Q. So what training and experience did he have

17 that qualified him, to your knowledge?

18 A. He was a journeyman lineman. We have to go

19 through multi schools. I went through multi schools.

20 I'm also certified, most of the guys are, by the State of

21 California Mastership Apprentice Program. So we pretty

22 well have done it all.

23 Q. All right. But is there more training to be a

24 troubleman? I mean, not all linemen were troublemen?

25 A. No. No. To be a troubleman, I mean, all we

26 were doing was inspecting lines. As far as all the other

1 deals, it's switching and stuff that he's not qualified
2 for.

3 Q. Okay.

4 A. In other words, he couldn't go out and switch
5 lines around or kill lines or stuff like that. He has to
6 be trained on stuff like that.

7 Q. So when (WITNESS #23) was completing the
8 inspection, were you supervising him in that?

9 A. Yes. I was with him most of the time, yeah.

10 Q. And this was a detailed inspection?

11 A. That's correct.

12 Q. That is a ground inspection?

13 A. That's right.

14 Q. Do you remember or do you recall or is it
15 written down in your report on your inspection how long
16 it took you to complete this inspection?

17 A. No. I don't even know. Don't even remember.

18 Q. Okay. Well, for instance, we're on page 17 of
19 your Transmission Line Object List. And this is a page
20 completed by (WITNESS #23)?

21 A. Yes.

22 Q. It shows August 14th, 2014; correct?

23 A. Sure.

24 Q. So we'll use that as a baseline. One of the
25 other reasons I wanted to ask about this, on this page,
26 page 17, it goes 16/128, 16/129, 16/130, don't know what

1 that says, then 0001.

2 A. We talked about that before.

3 Q. Yes, we did, but I want to put it in context so

4 it's understood.

5 A. Probably where it came into a substation and

6 that broke the line and then they started renumbering

7 again.

8 Q. Okay. You talked about the substation

9 previously being at Big Bend?

10 A. Yes, sir. You brought it up.

11 Q. Cool. So I thought this was a good opportunity

12 to show that's the numbering system.

13 A. Absolutely.

14 Q. Cool.

15 All right. Going back to page 2. Page 2 of

16 167. This is the Transmission Line Inspection Data

17 Sheet?

18 A. Yes.

19 Q. And who completed this data sheet?

20 A. Both of us. You see both signatures right

21 there. There's (WITNESS #23), then there's mine.

22 Q. Okay.

23 A. Okay.

24 Q. So completed on 8/28/14?

25 A. That's (WITNESS #23), and the next is mine.

26 Q. (WITNESS #1), 8/28/14?

1 A. We both signed it off.

2 Q. Cool. What problems did you find with the
3 line?

4 A. As you see right there in front of you, flash
5 bells, broken insulators. That's the majority of the
6 work right there.

7 Q. This is page 6 of that exhibit. This is the
8 notifications page.

9 A. Okay.

10 Q. And shows open notifications, 22/188 and
11 22/189; correct?

12 A. Yes.

13 Q. 22/188, replace the connectors; 22/189, replace
14 the sleeves?

15 A. Right.

16 Q. So those were open notifications when you did
17 the 2014 inspection?

18 A. Yes.

19 Q. And this is, going back to 166, page 41 of the
20 Transmission Line Object List for the year 2012
21 inspection --

22 A. Correct.

23 Q. -- that you've done. And this is 22/189,
24 22/190. 22/189, you see it right here?

25 A. Yep.

26 Q. And what did you find on 22/189 -- 22/188 and

1 22/189?

2 A. Preexisting, and 189 was completed no problems.

3 Q. Okay. Now, on these Transmission Line Object

4 Lists, this left-hand column --

5 A. Okay. Before you ask me this question, come

6 here.

7 Q. Okay.

8 A. All right. This is from a heat gun.

9 Q. Okay. I'm going to get back to that in just a

10 second. We're going to get back to that in just a

11 second, but I want to go through something more basic.

12 This left-hand column here, this information --

13 A. Yeah.

14 Q. -- tell us again what this information is.

15 A. Just tells about the structure. Tells tower 22

16 over 187, lattice steel tower. This is the sat number,

17 this is suspension tower, these are the GPS coordinates,

18 the lats and longs. So if you get on your computer, you

19 put the lat-long in or put that number in, it will bring

20 the tower right up, tell you exactly where it's at. On

21 every structure this company has, that number right there

22 will tell you where that structure is, what the line name

23 is, and where to find it.

24 Q. So going back to --

25 A. Yes.

26 Q. -- one of the places we started at last time --

1 A. Yes.

2 Q. -- which is a Google Earth map of --

3 A. Yeah. But you remember, you brought the

4 substation up. I had forgot it. That's why the numbers

5 are broke. In other words, they started, stopped,

6 started again.

7 Q. Right.

8 A. That's what the two colons mean right there.

9 Q. Okay.

10 A. Okay?

11 Q. And then -- but you're able to track the

12 entirety of this line based on --

13 A. Oh, absolutely.

14 Q. -- the GPS?

15 A. Absolutely, every one.

16 Q. Okay.

17 A. The -- say I pull a GPS coordinate on the one

18 tower out of the, out of the powerhouse. When I get in

19 the helicopter, I can punch that right into Garmin GPS,

20 and it will fly right to it every time.

21 Q. So did you ever have an occasion when the

22 information in this left-hand column of the Transmission

23 Line Object List was wrong?

24 A. No.

25 Q. Now that you get these GPS coordinates and you

26 get there and there's no tower there?

1 A. No. Never. Never. We might have been off
2 maybe -- you know, it might have been off maybe one or
3 two degrees, but usually it's right on the money.

4 Q. Now, you did the inspections and everything on
5 the Caribou-Palermo basically from 27 -- 2007 through
6 2014; correct?

7 A. Yes.

8 Q. Did you get to know that line pretty well?

9 A. Absolutely.

10 Q. While you were assigned to that line, were
11 there any major incidents on the line?

12 A. Yeah, we only -- one only I know of. That was
13 across from Buck's Powerhouse. We had -- there was one
14 wood structure in the whole line, and it caught fire and
15 burnt down and we had to repair it.

16 Q. Okay. Do you know when that occurred?

17 A. No, sir, I don't.

18 Q. You were still with PG&E in 2012; correct?

19 A. Yes. Well, as far as I know.

20 Q. Was there a major incident on the
21 Caribou-Palermo line in 2012?

22 A. You know, I don't know.

23 Q. Okay. You don't have a memory of anything
24 major happening?

25 A. No, sir.

26

1 (Exhibit 239 was marked for identification.)

2

3 Q. I'm going to show you -- and this is an exhibit
4 that's marked for identification only as a record to
5 refresh recollection. This is 239.

6 A. Okay.

7 Q. And I want you to read that, not -- to
8 yourself, and then once you're done -- just read the
9 first two pages, and specifically page 2.

10 A. Well, it's --

11 Q. Nope. Don't talk about it, just read it to
12 yourself. Then when you're done, let me know.

13 A. Okay. Okay.

14 Q. All right. Just go ahead and put it down,
15 upside down, so you can't see it.

16 Now, reviewing Exhibit 239, does that refresh
17 your recollection as to what happened in 2012?

18 A. The only reason why is (WITNESS #20) told me.

19 Q. Okay.

20 A. And he was the troubelman on call that night.
21 And, and what happened, there was a massive storm in the
22 canyon, and it knocked about four or five of the towers
23 down there on the Palermo line. And they replaced them
24 with wood.

25 Q. Okay. And you were aware of that?

26 A. Not until maybe a couple days later, because

1 (WITNESS #20) told me. Like I said, he was the on-call
2 transmission troubleman.

3 Q. Did you take part in the --

4 A. No.

5 Q. -- the repair efforts?

6 A. No, GC line.

7 Q. Do you know what replaced those towers that
8 were lost?

9 A. They went to wood, I believe.

10 Q. Do you know what a shoo-in is?

11 A. No, it's not. It's a shoo-fly.

12 Q. Or shoo-fly?

13 A. Yes.

14 Q. What's a shoo-fly?

15 A. Shoe fly is a temporary piece of construction
16 that will be removed later.

17 Q. And was a shoo-fly common for, at PG&E?

18 A. Yes. We did them all the time.

19 Q. And so what recollection do you have, absent
20 anything from anybody else, what anybody else told you,
21 what recollection do you have of the 2012 incident?

22 A. None.

23 Q. Now, when you did your inspection in 2013, that
24 inspection should have reflected those towers that were
25 lost; correct?

26 A. I don't know. I don't even remember. All I'm

1 saying is I'm just getting hearsay from (WITNESS #20) --

2 Q. Okay.

3 A. -- that he told me about them and what was
4 going on up there.

5 Q. Well, let's just assume that there were six
6 towers lost, okay, in December of 2012, that were gone
7 and they no longer existed and they were replaced by a
8 shoo-fly?

9 A. Okay.

10 Q. Should that have been reflected in your 2013
11 inspection?

12 A. I would have thought so.

13 Q. So going back to your 2013 inspection, which is
14 166 right here in front of you, and first to the open
15 notification list. And the open notification list still
16 lists open notifications at 22/188 and 22/189; correct?

17 A. I don't know. Like I say, you're, you're
18 running years where the structures went down, and I don't
19 know. I might not have even patrolled them or been
20 there. I can't help you on that.

21

22 (Exhibit 240 was marked for identification.)

23

24 Q. Right. Well, let's look at something else. I
25 want you to look at a few other things. Read 240 for me
26 real quick.

1 A. Okay. Just want to replace the stuff --
2 Q. Don't talk about it, just please look at it and
3 read it.
4 A. Okay.
5
6 (Exhibit 241 was marked for identification.)
7
8 (Exhibit 241A was marked for identification.)
9
10 (Exhibit 242 was marked for identification.)
11
12 (Exhibit 242A was marked for identification.)
13
14 (Exhibit 243 was marked for identification.)
15
16 (Exhibit 244 was marked for identification.)
17
18 (Exhibit 245 was marked for identification.)
19
20 Q. And then there's 241 through 245.
21 A. Okay.
22 Q. And 241A, 242A --
23 A. They're all notifications.
24 Q. I want you to look at them briefly. When
25 you're done, turn them over. Let me know when you're
26 done.

1 A. All righty. Like I said, I was told they were
2 replaced by wood. From there, I don't know.

3 Q. Okay. Does reviewing those reports refresh
4 your recollection on, as to the number of towers that
5 went down in 2012?

6 A. Yeah, I don't even know that. I was just told
7 that there was towers that went down and they were going
8 to replace them with wood. That's all I was told.

9 Q. So when you did the 2013 inspection, there's
10 nothing to note that those wood towers -- that those
11 steel structures had been replaced by wood towers;
12 correct?

13 A. Yeah, I don't know.

14 Q. And let's assume that among the towers that
15 went down in 2012 are 22/188 and 22/189. Those are still
16 listed as open notifications on your paperwork; correct?

17 A. I see them here.

18 Q. Okay.

19 A. But, I mean, that could have been -- the towers
20 went down in the wintertime, I believe. That's what the
21 guys told me. They told me it was a big snow storm up
22 there and they went down.

23 Q. Okay. That was in December of 2012?

24 A. Okay. So what's this patrol? It's -- this
25 patrol, this air patrol went down in 8, 8. That was
26 August. So them structures were still there.

1 Q. August of 2013?

2 A. Them structures were still there.

3 Q. No, this is August of 2013. They went down in
4 December of 2012; correct?

5 A. No, I don't know. I mean, I don't think -- if
6 they would have not been there, then I wouldn't have
7 wrote them up.

8 Q. Okay. That's where I'm going. This is your
9 Transmission Line Object List --

10 A. Okay.

11 Q. -- page 41. And this shows 22/188 and 22/189;
12 correct?

13 A. Okay. Right. If they were with wood, then I
14 would never -- I would have made that note or comment.
15 It says right down there, you can put notes down on what
16 you see, a bird or an airplane or whatever going on up
17 there. I would have wrote that down, "replaced with wood
18 poles."

19 Q. Okay. So what did you record for 188?

20 A. 188. 77 -- there it is.

21 Q. 188 is partially underneath the hole punch.

22 A. It see it there. It says preexisting
23 conditions checked, double dead end tramp.

24 Q. 189?

25 A. Yep. Same thing. All I'm just saying is --

26 Q. That goes back to the open notifications?

1 A. Yeah. I don't -- like I said, I don't know
2 when all that stuff went down, what winter it was or
3 whatever it was. That -- (WITNESS #20) took care of all
4 of that.

5 Q. Okay. And now we're to 167, which is back to
6 your --

7 A. '13.

8 Q. 167 is '14.

9 A. Okay.

10 Q. And page 5, which is the notification list.

11 A. That's when me and (WITNESS #23) shared it.

12 Q. That shows 22/188 and 22/189 still with open
13 notifications on it?

14 A. Yep.

15 Q. And then on page 41 and 42, now this is the
16 part that was completed by (WITNESS #23)?

17 A. Yes. Okay.

18 Q. And what does the Transmission Line Object List
19 reflect for 188 and 189?

20 A. It says completed, no problems. Completed, no
21 problems.

22 Q. And you started to volunteer this to me
23 earlier --

24 A. Yeah.

25 Q. -- there are notes on here?

26 A. That's just --

1 Q. Explain those.

2 A. Just conductor height; 32 feet, 78 degrees, at

3 12:00 o'clock. We carry heat guns with us.

4 Q. Okay. Explain that to us.

5 A. We just want to make sure that the conductor

6 was legal limit off the ground.

7 Q. So what do those numbers mean?

8 A. That means the conductor is 32 feet from the

9 ground to the conductor, at 78 degrees, at 12:00 o'clock

10 noon.

11 Q. Okay. 78 degrees is the temperature of the

12 conductor or the ambient temperature?

13 A. Outside ambient temperature.

14 Q. Okay. So see if we can read this right. This

15 is on tower 23/193, the conductor is 32 feet above the

16 ground, at 78 degrees, and you did that at 12:00 o'clock?

17 A. That's right.

18 Q. Then at 22/186, your conductor is 61 feet, at

19 80 degrees?

20 A. Yes.

21 Q. And that's at 12:20?

22 A. That's right.

23 Q. So you've moved seven towers in 20 minutes?

24 A. Uh-huh. I guess he did. He's the one that did

25 it.

26 Q. Okay. But you were out there supervising him?

1 A. At times, too, you know, he didn't hold my hand
2 while I went to the potty room or anything, do you know
3 what I'm saying? But yeah, (WITNESS #23) is a very smart
4 individual, and he could, he could think.

5 Q. And this is a five-year detailed inspection;
6 correct?

7 A. Yes.

8 Q. And at least right here you've basically got
9 seven towers being inspected in 20 minutes?

10 A. Right.

11 Q. Which is less than three minutes a tower?

12 A. Right. I mean, he did it, that's what he wrote
13 up.

14 Q. Do you have a recollection as to how far those,
15 how far apart those towers are?

16 A. No.

17 Q. All right. And this is the comparison, 2012,
18 2013, 2014, Transmission Line Object List, page 41. Do
19 you see those? Here, you want to stand up at the big
20 board? It's three different numbers, three different
21 reports.

22 A. What do you need?

23 Q. Each of these pages is pretty much identical in
24 terms of the prepopulated information; correct?

25 A. Yeah.

26 Q. The description of the type of tower?

1 A. Sure.

2 Q. The location of the tower?

3 A. It's all generic.

4 Q. Right.

5 A. When you started in 2009, it's the same thing.

6 Q. Okay. And then you just checked the boxes as

7 to what you do?

8 A. What we see. And we put down what we see and

9 what needs to be fixed.

10 Q. So there's no indication in any of these that

11 any of these towers are missing; correct?

12 A. No, not that I know of.

13 Q. So if these towers, if some of these towers

14 disappeared, they wouldn't be reflected?

15 A. Everything I always saw was there. I mean, if

16 -- I don't know what went away or what was there. That I

17 can't help you with.

18 Q. Right. Let's just assume that in the 2012,

19 188, 189, 190, 191, and 192 fell down and went away.

20 A. Okay.

21 Q. And disappeared for good.

22 A. Okay.

23 Q. There's no indications in your '13 or '14 lists

24 that there's any changes; correct?

25 A. No. (WITNESS #23) wrote it up.

26 Q. Okay. But the '13 one is yours.

1 A. Yeah.

2 Q. But even in the company records, assuming those
3 towers are gone, they're still listing those as towers
4 that are still there; correct?

5 A. I guess. I don't know.

6 Q. Well, they're still here on the page, aren't
7 they?

8 A. I know, Marc, but I said I don't know. I've
9 been away from it a long time, so --

10 Q. That's the point.

11 A. Yeah.

12 Q. You're still listing --

13 A. What I can't tell you is the rhyme or reason
14 what anything happened or how it went down.

15 Q. That's a perfect point.

16 All right. I want to move away from that now.
17 I want to talk about suspension hooks with you. And you
18 talked about earlier that you were a, you were -- you've
19 been a journeyman lineman since what, 1972?

20 A. '77.

21 Q. '77?

22 A. Yeah.

23 Q. And you replaced a lot of insulator strings?

24 A. Yeah.

25 Q. And on suspension hooks?

26 A. Yes.

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(Exhibit 37 was marked for identification.)

Q. Can you tell us what we're looking at here on Exhibit 37.

A. Suspension bells. These are all the bells here. There's the porcelain bell. They call this the hub. That's the C hook that goes into the plate there. Right there.

Q. Do you see anything wrong with that?

A. No, I don't. Except it's old, that's all.

Q. Okay.

A. I don't see any flashing or anything. Usually you see where the lightning hit the hub, had walked down. There would be a big white spot like right on the glass there.

Q. Now, I do want to illustrate one other thing on this. Do you recognize this, what's depicted in this photograph?

A. Yeah. It's way up on the hill. I don't know. I don't even -- that might be the road, the old Camp Road, I'm not really sure.

Q. That's what I was going to ask, this road below, is that Camp Creek Road?

A. That could be Camp Creek Road. And these are all up on the hill here.

1 Q. Do you recognize what tower line that is?
2 A. Yeah, it's Caribou-Palermo. I believe. It
3 looks pretty antiquated.
4 Q. Right.
5 A. And the old copper wire.
6 Q. So when you were a troubleman, did you get any
7 instruction, any guidance to look --
8 A. Yeah, we looked at all that.
9 Q. We're talking about the hook and hole --
10 A. Yeah.
11 Q. -- on the suspension.
12 A. Yeah. But the only way that you could possibly
13 look underneath that situation there was take it apart.
14 And, you know what, that's a generation line, they're not
15 going to let you have it.
16 Q. Okay.
17 A. So all that, all that stuff, you can see how
18 old it is. It's been up there -- I don't know if this is
19 copper or aluminum. Looks like aluminum. It's so black
20 I can't really tell. But, yeah, it's pretty bad.
21 Q. We started off originally when you were here
22 talking about the *Electric Transmission Preventative*
23 *Maintenance Guide*; do you remember that?
24 A. Yeah.
25 Q. And I think this is a page from the 2011 *ETPM*?
26 A. Yeah.

1 Q. We talked about it a little bit, talked about
2 priority codes and what you're supposed to be looking at?

3 A. Sure.

4 Q. And where would you fit that hook and hole that
5 we just looked at, Exhibit No. 37?

6 A. Well, you just have to look at all of them down
7 through there. But see, here's the deal, here's all
8 switches and hardware. That's switching stuff. Here's
9 the steel structure. Then you have the mark and the
10 right-of-way, which trees contact and all that stuff.
11 Then you just start coming down through here, about your
12 corrosion, your contamination, burnt, broken, loose,
13 missing, or your rust. And this tells you how many
14 months that you think that that will last.

15 Q. So where would the hook and the hole fit into?

16 A. It might be right in here: Rust, 10 to 30
17 percent material loss, cracked, corrosion, contamination.
18 It would be right there.

19 Q. How do you determine 30 percent rust or 10
20 percent wear?

21 A. I mean, I can't -- I'm no scientist, so I can't
22 -- all I can do is look at it --

23 Q. Right.

24 A. -- and make an educated guess that when it will
25 fail. That's all I can tell you.

26 Q. Okay. But you don't think that this one

1 here --

2 A. What?

3 Q. -- is an issue?

4 A. Well, you see, you've still got three inches,
5 almost three inches of meat right there. And that hook
6 is solid steel. See how the hub's -- there's a cotter
7 key. That goes in the deal. This whole arm would
8 collapse before that would ever separate. That's how
9 strong that is.

10 Q. During your career with PG&E, did you ever hear
11 about any of these hooks breaking?

12 A. No.

13 Q. Were you ever provided any information about
14 any studies of, as to wear and breakage of those hooks?

15 A. No.

16 Q. Were you aware that any studies were done on
17 those hooks?

18 A. Not that I was aware of.

19 Q. As a troubleman, were you given any information
20 by PG&E that wear patterns had been studied in the hooks
21 and holes and tests had been done?

22 A. No. I ain't never got any of that information.

23 Q. And did you ever get any specific guidance to
24 specifically look at the hooks and the holes and to
25 replace?

26 A. No guidance.

1 Q. Now, you were told back in 2009, "We're having
2 a problem with some of these connectors"?

3 A. Yes.

4 Q. "So you need to identify every one of the
5 connectors, and we need to change those out"; correct?

6 A. We did.

7 Q. Well, as of when you retired at the end of
8 2014, none of them had been changed; correct?

9 A. Sir, I'm just a lineman, do you know what I
10 mean? What does Mike Ramsey tell you every day?

11 Q. But I'm saying we looked at the notification --

12 A. Help me here. What I'm saying, I can only do
13 what I know.

14 Q. Oh, no. Absolutely. Absolutely. But unlike
15 the connectors, you never got any bulletins telling you
16 to specifically look at those things and change out those
17 things?

18 A. Not that I was aware of. I never seen one.

19 Q. Now, we're looking at table 2 in the 2011 *ETPM*.
20 This talks about best view to inspect certain things.
21 Which one of these categories would you fit the hook and
22 hole and the suspension C hooks and --

23 A. Right there, "Insulators and hardware."

24 Q. Insulators and hardware. So what's the best
25 methods, best view to inspect those components of the
26 towers?

1 A. Climbing.

2 Q. Did you ever climb any of the --

3 A. Oh, yeah. I climbed them to look at them.

4 Q. The Caribou-Palermo?

5 A. Oh, yeah. Sure.

6 Q. When?

7 A. Oh, hell, I don't know. No idea.

8 Q. When you were a troubleman or when you were a

9 lineman?

10 A. Troubleman and sometimes probably when I was a

11 lineman. But that goes way back. No recollection of

12 that stuff.

13 Q. Okay. Do you remember when would have been the

14 last time potentially as a troubleman you would have

15 climbed the Caribou-Palermo line?

16 A. It would have been on the ground, ground

17 patrol, a detailed patrol.

18 Q. Why would you have climbed it?

19 A. Because there was maybe something I couldn't

20 see. I could go up there, get a closer look.

21 Q. Was there anything documenting that you climbed

22 it?

23 A. No.

24 Q. Or any specific towers?

25 A. No.

26 Q. This is from the 2014, this is table 3 of the

1 *Electric Transmission Preventative Maintenance Guide,*
2 "Facility codes and Descriptions"?

3 A. Sure.

4 Q. Can you tell us where those hooks and holes
5 would fit?

6 A. Might be down, down in hardware. That's about
7 all I see.

8 (Court reporter interrupts proceeding.)

9 A. Dead end hardware, ma'am. That's crossarms,
10 wood. That's about all I see right there.

11 Q. Okay. Dead end hardware?

12 A. Yeah.

13 Q. So anything related to the hooks and holes
14 shown in 37, the suspension hooks, the insulators, you'd
15 expect to be dead end hardware, that's where you'd put
16 it?

17 A. You know, I would just probably write it out.
18 That's what I always did was just write it out. If there
19 was -- like the splices and connectors, I wrote them out.

20

21 (Exhibit 168 was marked for identification.)

22

23 Q. All right. I'm showing you a picture, 168.
24 Should be in your stack there. There it is.

25 A. There it is right there. Okay. And --

26 Q. You recognize what's shown in 168?

1 A. Yes. C hook.

2 Q. And you've seen those before?

3 A. Yes.

4 Q. You've replaced them before?

5 A. Yes.

6 Q. Anything you notice about that C hook depicted

7 in 168?

8 A. It's just got a small, where it's been working

9 in the plate.

10 Q. What do you mean "working in the plate"?

11 A. Well, the wind swings, swings the bells, and so

12 that, that hook and right there where it goes into the

13 eye, it works.

14 Q. So let's back up to 1 -- back to 37 here.

15 A. You can see it right there. As the wire swings

16 back and forth in the canyon there, the wind is blowing

17 it.

18 Q. So you're talking about as this insulator

19 swings --

20 A. Yeah.

21 Q. -- swinging back and forth?

22 A. It's working the eye and the hook, yeah. Right

23 there.

24

25 (Exhibit 169 was marked for identification.)

26

1 Q. Okay. Showing you what's marked as 169. You
2 can take that clip off.

3 A. Okay. 68, 69. There we go. Okay.

4 Q. You recognize what's depicted in 169?

5 A. Yeah. It's a plate.

6 Q. What is it that you call that?

7 A. It's a plate. It's an eye plate. I call it an
8 eyelet plate.

9 Q. Eyelet plate?

10 A. Yeah.

11 Q. Okay.

12 A. Everybody's got their own words for them.

13 Q. Do you know, is there anything unusual about
14 that --

15 A. Yeah.

16 Q. -- eyelet?

17 A. Yeah. I can see the wear on it. Yeah.

18 Q. What do you mean "the wear"?

19 A. The wear where the C hook's been rocking in it.

20 Q. Okay. And can you show us on here what we're
21 talking about there?

22 A. Well, it's just not -- it's oblong. You can
23 see it right here. You can see the rust pattern and
24 stuff. But it's still not in failure mode. You've still
25 got two inches of steel. That steel is probably
26 two-inch, inch-a-half steel.

1 Q. What do you mean by two-inch?

2 A. That's the size of the plate, the thickness of
3 it. Right through here. Look how far it goes back on
4 the arm.

5 Q. Thickness in terms of cross-section?

6 A. No, flat. Probably be an inch, inch and a
7 half.

8

9 (Exhibit 170 was marked for identification.)

10

11 Q. All right. Moving up to 170 here.

12 A. Yes.

13 Q. And this is a, what kind of tower is this?

14 A. Tramp.

15 Q. And do you recognize this tower?

16 A. Not really.

17 Q. Do you know what line this is on?

18 A. Well, it's on Caribou-Palermo. I mean, we've
19 have been on it since -- I'm sure you haven't went to the
20 Caribou-Cottonwood or something, I take it.

21 Q. Do you see anything about this, the tower shown
22 in this photograph, that you would notice being a
23 problem?

24 A. Well, you see the connectors again. You can't
25 miss them. They're all along the bar right here. There.
26 See there? There's a whole, totally different connector

1 there. That's a "transmission connector" they call it.
2 There's one there. There's another one. Probably some
3 up in the top. Yeah.

4 Q. Do you see any of the old 2009 connectors left
5 in this tower?

6 A. Yeah, they're still there. Yeah. I don't
7 think they ever changed them out.

8
9 (Exhibit 171 was marked for identification.)
10

11 Q. Now 171, now we're specifically going in on the
12 arms --

13 A. Okay.

14 Q. -- on this tower.

15 A. Right.

16 Q. Do you see any issues with the hooks and the
17 holes and the eyelets and the insulator strings?

18 A. Yeah. They're rusty and worn. Wore, worn.

19 Q. Now, when you're doing a helicopter patrol and
20 you're looking at these arms with these connector points,
21 what are you looking at to determine wear?

22 A. Just seeing how much the C hook is wore on the
23 plate.

24 Q. How do you do that?

25 A. Well, usually I had the motion binoculars with
26 me, and I could get right with -- I could see a fly on

1 it, because we'd get in so close. Because the helicopter
2 we flew in, they had small rotor blades so we could
3 really press and get in close to the tower.

4 Q. So what, what about this connection point would
5 you look at to determine --

6 A. We look at all the strings, the conductor, the
7 bells, everything, all bolts, steel, everything, the
8 whole tower.

9 Q. Right. But with this connector point right
10 here, the hook in the hole, the hook is holding the
11 suspension --

12 A. Yeah.

13 Q. -- these insulators, and the hole in this
14 crossarm and jumper arm. How would you look at that to
15 determine wear? What would you, what would you be
16 looking for to show wear?

17 A. Well, you've just got to look surface to
18 surface; right?

19 Q. Explain it.

20 A. Surface to surface. The C hook to the plate.
21 That's surface to surface.

22 Q. Okay. But how would that show you wear?

23 A. You could see it. You could see the wear.

24

25 (Exhibit 172 was marked for identification.)

26

1 Q. Okay. Now, we're going up to 172. This is a
2 separate tower. Do you recognize what type of tower this
3 is?

4 A. Yeah. Looks like another transposition.

5 Q. Do you recognize that line?

6 A. Same line.

7 Q. Okay. Anything that you notice about that
8 tower that would --

9 A. Same thing.

10

11 (Exhibit 139 was marked for identification.)

12

13 Q. This is Exhibit 139. Recognize what type of
14 tower that is?

15 A. Yeah. This is the one you just looked at.

16 Q. And what type of tower?

17 A. Transposition.

18 Q. Okay. Do you see anything wrong with this?

19 A. Same as before, as all of them.

20 Q. What do you mean?

21 A. Wow.

22 Q. Remember, we've got to explain this for the
23 record.

24 A. I know. We have only covered sleeves and
25 connectors a hundred times. You've been on the four or
26 five transposition towers for the last two hours. They

1 never changed. They're just like brother and sister.
2 They all look the same. They got all the same hardware,
3 they got all the same conductor and makeup on them.

4 Q. Okay.

5 A. I mean, you can go through every one of these
6 goddam things right here, and they're all the same.

7 Q. Right.

8 A. Okay? So what are you after? Maybe the C hook
9 failed in the plate or what? Or the bells failed? Or
10 the pins come apart? Or the conductor went on the
11 ground?

12 Q. Okay.

13 A. What would you like?

14 Q. I want to know what's wrong with this tower.

15 A. The same as in this book that we all wrote up
16 right here. You've read it over and over from 2009,
17 Marc, to 2014.

18 Q. Right.

19 A. Okay.

20 Q. But do you see anything in this photograph
21 depicting that there's anything wrong with this tower
22 that you would write up?

23 A. It's already wrote up.

24 Q. I mean, this is --

25 A. It's already wrote up, Marc. All the
26 connectors and all the problems with the tramp towers

1 were all wrote up from my eyeballs from 2009 to 2014.

2 Q. This -- for instance, the connectors are like
3 this right here?

4 A. Yes. There's all sorts of connectors up there.

5 Q. The connection points between the tower arms
6 and the insulator strings, those aren't connectors;
7 right?

8 A. No, they're C hooks. They're C hooks to
9 plates.

10 Q. Right.

11 A. Yes.

12 Q. So if you're doing an inspection of this, you
13 look at this tower from a helicopter, and do you
14 recognize there's a problem with this tower with the C
15 hooks and the plates?

16 A. If they were, we would write them up.

17 Q. Okay. But would you, looking at this
18 photograph?

19 A. Yes, I would, if I saw a problem. But what
20 you're doing, you're looking at years of wear, and
21 they're not ready to fail yet of what I see. And the
22 book gives you guidance on if you see that it's under two
23 inches or inch or whatever, then you need to write it up.

24 Q. Okay. Does this tower look familiar to you?

25 A. No. I've been gone for five years, Marc.

26 Q. Yep. I know. But let's go back to your 20 --

1 2009. Where did we put it?

2 A. That's all your -- might be right here. That's
3 '14 here. That's '14.

4 Q. I was looking for your 2009, your pictures that
5 you took.

6 A. I don't know. I have no idea.

7 Q. There it is.

8 A. Okay.

9 Q. This is Exhibit 235.

10 A. Okay. Okay. Tower 24 over 199.

11 Q. And go back to the next picture.

12 A. Okay. All right.

13 Q. Now, does this tower on this picture look
14 familiar?

15 A. They're all the same.

16 Q. How so?

17 A. Every tramp tower is the same.

18 Q. Right. But is there anything unusual about
19 this tower that's different from all the other tramp
20 towers?

21 A. Not that I see. If you look at it, Marc --
22 we've been over this a hundred times now. Don't make me
23 lose it. I'm telling you right now. The same bar, the
24 same kind of configuration, the same eye hooks,
25 everything, same bells, same configuration as that right
26 there. All them towers are all the same.

1 Q. Okay. How many of the other towers have we
2 looked at that have a curved insulator string like that?
3 A. There's tons of them out there.
4 Q. Okay.
5 A. Yeah.
6 Q. Remember last -- two weeks ago --
7 A. The curved insulator doesn't mean no shit.
8 Q. Do you remember two weeks ago we talked about
9 you were telling me about you had a plumb line out there,
10 you talked about being out of plumb?
11 A. Yes.
12 Q. That's one of the things that's actually on
13 your inspection forms?
14 A. Yeah.
15 Q. Insulators out of plumb?
16 A. Yes.
17 Q. Wouldn't that be out of plumb?
18 A. It is out of plumb, but it's not, it's not --
19 electrically or mechanically, it's not a problem.
20 Q. Okay.
21 A. And we're talking not steel, we're talking wood
22 when you're saying out of plumb.
23 Q. Okay. And then isn't this a three-bolt
24 connector?
25 A. Yes. Same thing you saw here. Come over here,
26 Marc. Look.

1 Q. Absolutely.

2 A. There's that one, too. And that one. And that
3 one. And that one. They're all the same.

4 Q. These are the three-bolt connectors that were
5 supposed to be replaced back in 2009?

6 A. Did they replace them, Marc? Apparently they
7 didn't. I don't know what you want from me, do you know
8 what I mean? I'm losing faith here; okay?

9 Q. There it is. There's 235.

10 A. Look at it. Check this out. The bar, the same
11 tramp configuration on top, same tower.

12 Q. Right. We got this out-of-plumb insulator
13 string?

14 A. Yes. Absolutely. It's --

15 Q. That's the bolt connector?

16 A. Thank you.

17

18 (Exhibit 174 was marked for identification.)

19

20 Q. Okay. And this is Exhibit 174. That's
21 another, another view of it; correct?

22 A. Yes, sir.

23 Q. This is the three-bolt connector?

24 A. Yep, that's it.

25 Q. You marked in 2009 that needed to be replaced?

26 A. That's right. I wrote them all up.

1
2 (Exhibit 175 was marked for identification.)
3
4 Q. All right. 175?
5 A. Okay.
6 Q. Do you see anything wrong with that tower?
7 A. Same thing as all the tramp towers. Got the
8 bar, got all the lattice work, same thing.
9 Q. Okay. But do you see anything on that that you
10 would mark down as being a problem?
11 A. No, not really. No. Got all the same
12 connectors all down through the bar. Connectors out
13 there. Bolts. There's some more connectors. Got
14 connectors everywhere. Then there's some guy standing
15 there.
16 Q. And you've replaced these insulators multiple
17 times --
18 A. Yes.
19 Q. -- throughout your career; right?
20 A. Yeah.
21 Q. You know what it looks like when you put a
22 brand new insulator in and --
23 A. Yeah.
24 Q. -- all new equipment on here?
25 A. They're glass.
26 Q. Is there supposed to be daylight like that

1 through that hole?

2 A. Yes. Oh, yeah.

3 Q. You're sure about that?

4 A. Well, if there's not, Marc, you can't get the C
5 hook in.

6 Q. Okay.

7 A. I mean, you're talking mechanical. See, if
8 that doesn't have that type of hole there --

9

10 (Exhibit 176 was marked for identification.)

11

12 Q. Now we're on to 176.

13 A. You can't get the C hook in through there.

14 Q. So you're telling me that this is the way this
15 is supposed to --

16 A. That's the way they built it back in a hundred
17 years ago, Marc; okay?

18 Q. Okay.

19 A. I don't engineer the stuff, pal, you know? I
20 just work on it.

21 Q. I want to give you a couple hypotheticals.
22 Showing you a picture of that C hook we looked at earlier
23 that you --

24 A. Got it right here.

25 Q. This C hook. And this is Exhibit 168A.

26

1 (Exhibit 168A was marked for identification.)

2

3 A. Right here.

4 Q. Hypothetical. I want you to assume that the
5 width of this at the apex of this C hook where it makes
6 contact is 15/16 of an inch.

7 A. That's quite a bit.

8 Q. You know that?

9 A. Yeah. That's quite a bit.

10 Q. Oh, okay. That's quite a bit. I thought you
11 said you knew that.

12 A. I said that's quite a bit. Have you ever held
13 one of these in your hand?

14 Q. I have, yes.

15 A. You have?

16 Q. Yes.

17 A. They're heavy.

18 Q. Yes, sir.

19 A. They're all steel.

20 Q. Remember, I got to ask the questions.

21 A. Yes. They're all steel, galvanized. So to
22 destroy one, you'd have to pull it apart with two
23 Caterpillars, that's how tough them things are.

24 Q. All right. So that, that's 15/16 of an inch of
25 steel?

26 A. Right.

1 Q. That's your hole?

2 A. Yes.

3 Q. The eyelet. This is 169A. This is the same
4 picture you looked at beforehand.

5

6 (Exhibit 169A was marked for identification.)

7

8 A. Yeah.

9 Q. I want you to assume for the purposes of this
10 hypothetical, based upon all of your experience as a
11 troubleman, as a lineman, that that hole when it was
12 designed, the diameter of that hole is 1 1/8 of an inch.

13 A. That I don't know. That was --

14 Q. I want you to assume that. I'm not asking you
15 if you know that.

16 A. Okay.

17 Q. You've already told us you don't know what it's
18 supposed to be.

19 A. I don't. It's oblong. You can see that.

20 Q. Okay. But that hole is not, that's not the way
21 that hole is designed; right?

22 A. That's right.

23 Q. When you put new ones in, new, those are round
24 holes; correct?

25 A. Sure.

26 Q. I want you to assume that the diameter of that

1 round hole is designed as 1 1/8 of an inch.

2 A. That I don't know.

3 Q. No, no. Assume that.

4 A. Okay.

5 Q. So if the hole is 1 1/8 inch diameter and the
6 hook is 15/16 of an inch, how much space should there be
7 between the top of the hook and the top of the hole?

8 A. I don't know. I'm no carpenter. I don't know.

9 Q. Okay. Well, what is the difference between 1
10 1/8 and 15/16?

11 A. I don't know. I don't know my math anymore.
12 Don't know it. Don't know fractions and the common
13 denominator, whatever you're after.

14 Q. So let's do this. 1 1/8. 1/8 would be -- in
15 sixteenths, so 1 would be 16/16, 1/8 would be 2/16. So
16 you're talking about 18/16; is that right?

17 A. I don't know.

18 Q. Minus 15/16. So you should have 3/16 of an
19 inch space between the top here.

20 A. Okay.

21 Q. Does that -- you changed a lot of these
22 insulators --

23 A. Yeah.

24 Q. -- in the years?

25 A. Yeah, but they're already engineered, Marc.
26 You put the plates up and you put the C hooks in, you go

1 to the next tower.

2 Q. Right.

3 A. I don't get my tape measure out, say, "Gee,
4 somebody messed up, it's only 15/16."

5 Q. Let me put it this way. There's only a sliver
6 of light at the top, between the top of the hook and the
7 top of the hole when you put a new one in; correct?

8 A. What are you after, Marc?

9 Q. Well, that's where we're going.

10 A. Okay. Where are you going with this? Help me.
11 I don't --

12 Q. Why is there so much, why is there so much
13 daylight in this and why is that not being recorded and
14 reported?

15 A. I don't know. That's the way it was engineered
16 a hundred years ago. My mother and dad didn't even meet
17 then, so I can't tell you.

18 Q. I'm telling you as a hypothetical, that's not
19 the way it's engineered.

20 A. I'm sorry, I don't know. I'm not an engineer.
21 I'm a lineman.

22 Q. I know. And that's what we're trying --

23 A. You know, you guys got to understand that
24 everything in this company they have engineers, and they
25 engineer everything that we do. And to pass that on,
26 they have a line standards book, an underground book, and

1 all this stuff that we go by that the engineers have
2 designed that, and that's how we build them.

3 Q. Right. And the question is, you're the
4 troublemen, you're the guys that are out there inspecting
5 it, you're the ones supposed to be finding the wear and
6 tear and the problems and --

7 A. That's right.

8 Q. -- getting them replaced before they --

9 A. That's right. Yes.

10 Q. So the question is, why weren't those hooks and
11 holes reported as problems and wear?

12 A. That's a factory -- that, to me, that is --
13 looked like that was done by a factory punch. That
14 wasn't done by wear. That's my take on it.

15

16 (Exhibit 178 was marked for identification.)

17

18 Q. I'm going straight to 178, to the end.

19 A. Okay.

20 Q. Do you see that hook?

21 A. Yeah.

22 Q. Do you see a problem with that hook?

23 A. Sure. It's got -- it's, well, probably about
24 half gone.

25 Q. Half?

26 A. Yeah.

1 Q. Do you not consider that hook worn?

2 A. Yeah, it is worn. Yeah.

3 Q. Would you say that that hook needs to be

4 replaced?

5 A. Yeah, I'd turn it in if I saw it like that.

6 Yeah.

7 Q. Okay. So let's assume -- and there's the

8 eyelet for that same hook.

9 A. Well, you still got plenty of room on it.

10 Q. Let's assume that's that hook hanging in that

11 tower.

12 A. Okay.

13 Q. Is that something that you would report as

14 being a problem?

15 A. Anything that I saw that looked bad or rusted

16 out, yeah, I would definitely write it up and turn it in.

17 Q. Let's assume that's that hook.

18 A. Okay.

19 Q. Are you going to report that, what you're

20 seeing right there, all that daylight, all that wear?

21 A. It depends on how bad it was worn. It was worn

22 that it could fail, then I would write it up.

23 Q. Well, you're looking at what that hook looks

24 like when it was taken off.

25 A. When did you take it off?

26 Q. That doesn't matter.

1 A. I haven't been on that line in five years,
2 Marc. Help me. Marc, I haven't been on that line in
3 five years. When did you take the hook off? You took it
4 off the 19th, I saw the date on it. So how can I write
5 it up when I'm not even working, I'm retired?

6 Q. I'm saying if you saw this in the field --

7 A. If I saw it --

8 Q. -- when you did your inspection --

9 A. I would probably write it up.

10 Q. Okay. The question is why -- you've patrolled
11 this line for seven years?

12 A. Right.

13 Q. This wear didn't occur in a year or two;
14 correct?

15 A. Oh, no. It probably occurred over its
16 lifetime.

17 Q. There were other troublemen doing this line and
18 continue to do this line?

19 A. Yes. Still do.

20 Q. The question is why wasn't that being reported
21 and why weren't those problems being fixed?

22 A. Hey, you see all the sleeves there, Marc? Why
23 don't you go ask PG&E. Right? That's the answer you
24 want. I only -- I wrote up everything that I saw that I
25 could possibly physically write up. Everything else is
26 out of my hands. I mean, I can only do so much. And you

1 see all the connector problems and sleeve problems from
2 2009 to '14, and guess what, they were on the books and
3 they never repaired them; all right?

4 Q. (WITNESS #1), thank you. I don't have any
5 further questions for you.

6 Do any members of the jury have questions for
7 (WITNESS #1)?

8 (Counsel and Grand Jury Foreperson confer.)

9 MR. NOEL: All right. (WITNESS #1), these are
10 questions from the jurors themselves.

11 Q. (By MR. NOEL) In your professional experience,
12 have you or any of the linemen or troublemen with whom
13 you were familiar, to your knowledge, filed any
14 fraudulent reports minimizing or -- minimizing the
15 maintenance condition for a problem on any line?

16 A. No, we never did. Every day we fought them.
17 I've been fired once already for fighting them.

18 Q. Them being who?

19 A. Pardon?

20 Q. Them being who?

21 A. Pacific Gas and Electric.

22 Q. Are you aware of the actual age of the
23 Caribou-Palermo line?

24 A. Pretty close; hundred years old.

25 Q. In air patrols, how do you inspect the tower?
26 Up to down, left to right?

1 A. We do up and down and left to right. We do --
2 we cover it all. And also we go over the top of the
3 tower and also get the opposite side of the tower, too.

4 Q. Do you take a meal break or any breaks during
5 air patrols?

6 A. Potty breaks, that's all we do. Usually
7 anywhere 10 to 12 hours flying time.

8 Q. How many breaks are normal for an air patrol?

9 A. Depends how much water I drink.

10 Q. How many miles round-trip is the line, the
11 Caribou-Palermo line?

12 A. It goes Palermo sub -- if you know where that's
13 at -- and it goes all the way up to the Caribou
14 Powerhouse up in the Feather River Canyon. It's quite a
15 bit of miles. It's probably maybe 60, 70 miles of line
16 all the way from Palermo to Caribou.

17 Q. If the PG&E policy is spending around 5 to 15
18 minutes to inspect each tower on air patrols once a year
19 to note any observed problems, in a ten-hour shift, 600
20 minutes to inspect -- 600 minutes, you inspect each tower
21 in less than 90 seconds for 444 towers. If flight time
22 is one hour out and one our back --

23 A. No, it's not.

24 Q. -- it's not enough time to inspect each tower.

25 A. Takes us a little over an hour to get,
26 especially get in the canyon. Then depends on the

1 weather. The weather is pretty bad sometimes. Sometimes
2 we get a little quick on the towers, sometimes we don't.
3 Depends on the weather. It can be real rough in there.
4 Canyon Creek creates its own weather. I've seen the
5 valley be clear and snowing and raining up there. Pretty
6 tough.

7 Q. I guess actual -- sounds like the actual
8 question, correct me if I'm wrong, from the jurors --

9 A. She just probably wanted to know what the
10 minute time.

11 Q. I think -- actually, I think what it's asking,
12 do you feel that PG&E actually gives you enough time to
13 do an actual inspection from a helicopter?

14 A. They only give you X amount of time on the air
15 patrols. And you have to complete that. They don't like
16 you running the jobs over. They never did. So, I mean,
17 we just tried to do the job to the best of our ability.
18 That's all I can say.

19 Q. You did this for a long time?

20 A. Yes.

21 Q. As, both as a lineman, journeyman lineman, as a
22 troubleman, do you feel that you had enough time with
23 each tower to do actually a meaningful inspection?

24 A. On some no, and some yes. I mean, it's kind of
25 a 50/50 deal. Especially that line. It's all about --
26 it's really tough in there to get up in some of them

1 towers. Really tough.

2 Q. The last question, you said the lines were over
3 insulated in terms of the insulators?

4 A. Yeah.

5 Q. That there should have been eight bells?

6 A. Yeah. Every line is called a kV, a kilovolt,
7 115, 230, 500. The National Code, and the company goes a
8 little bit by the National -- Electrical Code Book.
9 Every kV -- or 12 kV is an inch. So all you need is --
10 if this was a 12 kV line right here, you'd only need one
11 bell, because it's only 12 inches. So you can see how
12 many bells there are; one, two, three, four, five, six,
13 seven, eight, nine, ten. There's ten there. Usually it
14 stops at seven on 115 line. See how it's over insulated?
15 They've added three or four more bells. Might have been
16 because they have quite a few lightning strikes in the
17 canyon. There's a lot of lightning that goes on in
18 there. It works the bells and beats the conductor up
19 pretty good.

20 Q. In your experience, could the extra bells cause
21 a problem?

22 A. No.

23 Q. For instance, too much weight on it?

24 A. No. No. That's -- everything that you see
25 here, and I'm just the workee guy, when they tell me to
26 put this up, I do. Everything -- in San Francisco, they

1 have one old building that's completely engineering
2 department. They engineer the lines, the towers, they
3 engineer the gas. They engineer everything they have.
4 It's all engineered. So --

5 Q. All right. Anything else? Any further
6 questions out there?

7 A. Anything gentlemen? Ladies?
8 Got one more?

9 Q. You had mentioned -- and here's the follow-up
10 question -- earlier with regard to the time spent on
11 target on the helicopter?

12 A. Yeah.

13 Q. Or on anything?

14 A. Sure.

15 Q. You said that PG&E doesn't like jobs running
16 over?

17 A. They have -- everything is budgeted. I mean, I
18 know you guys probably at work out there and someplace,
19 and you have a budget you have to go by. Then when you
20 run that budget over, I don't care who you work for, they
21 don't really -- they're not jazzed up about it, do you
22 know what I'm saying? So that's -- they have -- every
23 department is allotted money, and that's over -- totally
24 over my head. But everybody has money that they are
25 given to spend, and if they go over that, they, that --
26 it just kills the budget. So it reflects back on the

1 supervisor because he didn't do the budget right or get
2 enough money or whatever. So you can see how that all
3 works, just keeps going up to the top until somebody
4 starts yelling and screaming and all of the above, so --

5 Q. So if you spent too much time --

6 A. I'd hear about it. I'd hear about it.

7 Q. But from who?

8 A. My supervisor.

9 Q. Okay. Who were your supervisors?

10 A. My supervisor would be (WITNESS #12). Then
11 he'd have to go to Sacramento to the other supervisor to
12 get permission for me to charge extra time for the line.
13 And sometimes they did because there was stuff that I
14 needed to watch or there was times when I'd go in the
15 canyon and the helicopter, the weather would be so bad
16 that we'd have to stop, fly back out to Richvale where
17 this company is at, and set down for a while, let the
18 weather try to clear a little bit, then try to get back
19 in there again. So there's been times when I've been up
20 in the rain and the snow in an aircraft. It's not really
21 too much fun. It's kind of scary.

22 Q. Have you ever had, for instance, experience
23 where because of problems on one line you have to borrow
24 from the budget from another line?

25 A. I've never done that. I just tell them I'm
26 going to run my line over. That's all I ever did.

1 Q. You said that that has to go all the way to
2 Sacramento for permission?

3 A. Oh, yeah. You have to get permission when you
4 start doing that.

5 Q. What happens if Sacramento says no?

6 A. Then you don't do it. Like I say, I'm just the
7 workee, you know.

8 Q. Okay. Let's say you were doing an inspection.
9 And your inspection, because of all kinds of different
10 factors, ends up taking way too long and you go over your
11 -- the helicopter budget for doing an inspection.

12 A. Then I get chastised for it.

13 Q. Okay. Then that money, say -- any idea how
14 much a helicopter is per --

15 A. They're running anywhere from about 500 to \$800
16 an hour.

17 Q. So --

18 A. Depends what aircraft you're flying in.

19 Q. So you go, you go over budget by an hour in
20 your helicopter doing an inspection, that's \$500?

21 A. Right.

22 Q. Where is that \$500 going to come from?

23 A. I have no clue, sir. You're asking me way
24 above my head.

25 Q. Well, did you ever see it, them tell you,
26 "Okay, tomorrow's the inspection, you've only got seven

1 hours to do an eight-hour job," or anything like that?

2 A. Marc, all I can tell you, it's out of my pay
3 grade. That's all I can tell you, sir.

4 Q. Thank you, (WITNESS #1).

5 Anything else?

6 We're going to let (WITNESS #1) go here.

7 Madam Foreperson, she's going to have an
8 admonition for you.

9 THE WITNESS: My hand up?

10 GRAND JURY FOREPERSON: No.

11 THE WITNESS: Okay.

12 GRAND JURY FOREPERSON: (WITNESS #1), you are
13 admonished not to discuss or disclose at any time outside
14 of this jury room the questions that have been asked of
15 you or your answers until authorized by the Grand Jury or
16 the Court. A violation of these instructions on your
17 part may be the basis for the charge against you of
18 contempt of court. This does not preclude you from
19 discussing your legal rights with your own attorney.

20 (WITNESS #1), what I have just said is a
21 warning not to discuss this case with anyone except the
22 Court, your lawyer, or the district attorney.

23 THE WITNESS: Yes, ma'am.

24 GRAND JURY FOREPERSON: Thank you. Thank you
25 for your time.

26 THE WITNESS: Thank you.

1 MR. NOEL: We've been going about an hour 15
2 minutes, but we have one witness out there that will be
3 about a 10-, 15-minute witness. Is it okay if we bring
4 him in, get him on, get him done, then break for lunch?

5 GRAND JURY EN MASSE: (Answers in the
6 affirmative.)

7 MR. FOGG: Did everyone get a handout for
8 (WITNESS #3)?

9 GRAND JURY FOREPERSON: (WITNESS #3), would you
10 raise your right hand, please.

11
12 (WITNESS #3)
13 having been called as a witness in
14 the matter now pending, having been first
15 duly sworn, testifies as follows:

16
17 THE WITNESS: I do.

18 GRAND JURY FOREPERSON: Thank you. Have a
19 seat.

20 MR. NOEL: Before we start, can you state your
21 full name, spelling your last name for the court
22 reporter?

23 THE WITNESS: (WITNESS #3), (SPELLING
24 REDACTED). That's loud. Sorry.

25 MR. NOEL: Some people need it, some of us
26 don't.

1
2 EXAMINATION
3

4 BY MR. NOEL

5 Q. What do you do for a living, (WITNESS #3)?

6 A. I'm -- obviously, I work for PG&E. I'm a
7 foreman in GC hydro. So all the powerhouses and dams.

8 Q. Tell us what GC hydro means.

9 A. So basically we tear apart the big generators,
10 work on the dams. Basically everything that generates
11 power with water we work on. So electrical, mechanical,
12 everything inside the powerhouse and outside.

13 Q. Are you an electrician?

14 A. I was an electrician, but now I'm a foreman.

15 Q. What's the difference between an electrician
16 and a foreman?

17 A. I run a crew, so --

18 Q. Okay.

19 A. I'm there in the morning, do the tailboards,
20 you know, lay out what we're going to do for the day,
21 make sure everyone is safe, has their right tools, PPE,
22 stuff like that.

23 Q. Do you know a guy named (WITNESS #2)?

24 A. Yeah, I know him. He's in maintenance.

25 Q. What's the difference between your two
26 positions?

1 A. I believe their title is crew lead, if I'm not
2 mistaken. They just do maintenance. So they maintain
3 stuff on the powerhouse. We actually rip stuff out
4 that's, you know 50, 60 years old and rebuild it.

5 Q. Okay. Just trying to figure out the different
6 terms. You're a foreman?

7 A. Yeah.

8 Q. But, like you said, the crew lead, but you're
9 both basically in charge of a group of workers?

10 A. Well, I guess the difference is I get paid
11 more.

12 Q. That's what I was looking for.

13 A. GC is a different title. So he's title 200,
14 I'm title 300.

15 Q. What's GC?

16 A. General construction. So I travel. I'm not
17 just in one watershed either.

18 Q. Now, you only work on hydro?

19 A. Hydro only, yeah. Some substation stuff, but
20 it's within the hydro facilities.

21 Q. Do you remember November 8th, 2018?

22 A. Yep. Yeah, I do.

23 Q. Do you remember what you were doing that day?

24 A. Yes, I do.

25 Q. Tell us what you were doing.

26 A. So I got -- the plan was to get to the

1 powerhouse very early in the morning, I believe.

2 Q. Which powerhouse?

3 A. Cresta Powerhouse. We were currently working
4 there. So we had -- the powerhouse is fed off an
5 alternate source, which is 12 kV line. And there was a
6 chance that that may get shut off that day, so we went to
7 work at 3:30, roughly, 4:00 o'clock in the morning to set
8 up generators to -- if the powerhouse didn't have any
9 power, it can potentially flood inside if there's pumps
10 that pump the water out, keep everything going. So we
11 went there to set up for that. So that's how my day
12 started. Then it was very windy, obviously, so that made
13 things interesting.

14 Q. What do you mean by very windy?

15 A. Well, you can't really see in the pictures on
16 the paper, but from the videos that I took, that was just
17 -- the way we do everything, too, just the reason why we
18 have all these pictures is everything that we do every
19 day we document on a time card. And we basically show
20 our work for the day. And that's just the way that, that
21 GC hydro does their work. They can kind of track how
22 much jobs are going to cost, what, you know, the
23 challenges were.

24 Q. How do photographs help you to keep track?

25 A. So say you have a piece of equipment sitting
26 there, you know, like an exciter we say, or a

1 transformer. And you start by tearing that down, at the
2 end of the day, you can show how much progress you made.

3 Q. How do you know that you did it on that
4 particular day?

5 A. Because the time card gets sent in every day.

6 Q. But how do the photos help you to show that you
7 did it on that particular day?

8 A. They're attached to the time card.

9
10 (Exhibit 222 was marked for identification.)

11
12 Q. Okay. All right. I want to go on showing you
13 what's, exhibit that's marked as 222. Do you recognize
14 that, that guy in that picture?

15 A. Yeah. Yeah.

16 Q. Who is the guy in the picture?

17 A. That's me.

18 Q. Do you remember when that picture was taken?

19 A. November 8th.

20 Q. And do you remember who took that picture?

21 A. I don't. I didn't even know that picture was
22 taken of me, to be honest with you.

23 Q. What is that in the background?

24 A. Big fire.

25 Q. Did you realize at the time what it was?

26 A. No. I don't think anyone did, actually.

1 Q. Obviously.

2 A. Actually, before this even, this fire got this
3 big, I sent guys from my crew that actually lived in
4 Paradise so that they could go try to get their families
5 out.

6 Q. All right.

7 A. And they didn't realize what it was going to be
8 either until they got there.

9 Q. You had your camera with you, too, right, or
10 your phone?

11 A. Yep.

12 Q. And did you take photographs?

13 A. Yeah.

14 Q. Did you take videos?

15 A. Yep.

16

17 (Exhibit 209 was marked for identification.)

18

19 Q. Showing you what's marked as 209 up there, do
20 you recognize that?

21 A. Yeah. That's, that's like right until the
22 beginning roughly around 6:30 probably. I think we
23 called the fire in just before that.

24 Q. Who called the fire in?

25 A. I probably sent one of my guys, obviously.

26 Q. Do you remember who you sent?

1 A. No.

2 Q. Did you know (NAME REDACTED)?

3 A. Yeah, I did know him. Yeah.

4 Q. And was he one of your guys?

5 A. No, he's on maintenance. Yeah.

6 Q. All right. So do you remember shooting this

7 video?

8 A. Yep.

9 Q. What is all that background noise?

10 A. Wind.

11 Q. That wind is howling, isn't it?

12 A. Howling.

13 Q. And can you actually see the wind in your video

14 playing on the water?

15 A. Yeah. So that water is running downhill, but

16 it's actually so windy that it's blowing the current

17 upstream.

18 Q. Do you remember approximately what time you

19 took this video?

20 A. Judging by the size of the smoke, probably

21 right after 6:30, 6:40, somewhere in there.

22

23 (Exhibit 210 was marked for identification.)

24

25 Q. All right. Now, do you recognize 210?

26 A. Yeah.

1 Q. Another video?

2 A. Yeah. And that's, that's the fire starting to
3 come the direction of the wind.

4 Q. Do you know what time you shot this video?

5 A. Maybe 10, 10 or 15 minutes after the other one.

6 Q. What did you use to shoot these videos and
7 pictures?

8 A. Just an iPhone.

9 Q. Your own iPhone?

10 A. My personal.

11 Q. Do you still have the photos and videos on it?

12 A. Yes.

13 Q. Do you have the phone with you today?

14 A. No.

15 Q. Okay. Do you know how to check the metadata on
16 photos and videos on your camera?

17 A. For like the time stamp?

18 Q. Yes.

19 A. Actually, if you click the picture on iPhone,
20 it will tell you the time right there on it.

21

22 (Exhibit 211 was marked for identification.)

23

24 Q. Okay. All right. Number 211, this video, tell
25 me if you recognize -- or if this is another video you
26 shot.

1 A. Looks like it, I mean.

2 Q. Wind is still howling?

3 A. Yep. Didn't change.

4

5 (Exhibit 212 was marked for identification.)

6

7 Q. Go on to picture number 212.

8 A. So that's probably one of the first pictures

9 right there.

10 Q. One of the first pictures you took?

11 A. Yeah. Yep.

12 Q. You really can't see anything in the background

13 in this, can you?

14 A. It was very small. The fire was very small at

15 that point, yes.

16 Q. You can stand up and use the board if you want.

17 A. I'm good.

18 Q. Okay.

19 A. But, yeah, you can -- in the, right in the

20 bottom of that valley, you can see, and just a little bit

21 of smoke.

22 Q. Where I come from we call this a "saddle."

23 Right here in this saddle, is that what you're talking

24 about?

25 A. Yep.

26 Q. That's just where the fire is when the fire is

1 starting?

2 A. Yep.

3 Q. Later in the videos you see the fire running
4 right up that ridge?

5 A. Yes. Same direction as the wind. And that --
6 I'll stand up I guess. This area is actually pretty much
7 clear. I mean, it's a low, low grass area. It's
8 cleared. But the thing is once it got up into where the
9 trees are, it had all that fuel. And then that's --

10 Q. Okay.

11 A. Once it got up to there, that's when I sent all
12 my crew members that live in Paradise out.

13 Q. So --

14 A. Which that's also where our GC hydro yard was,
15 too, in Paradise.

16 Q. And that -- explain to us what the yard is.

17 A. It's no longer.

18 Q. No, but what was --

19 A. So it's our assembly point. It's a place where
20 we have all our tools, our trucks, everything. So --

21

22 (Exhibit 213 was marked for identification.)

23

24 Q. All right. Moving on to 213, recognize what's
25 depicted in that photograph?

26 A. Yep. Yep.

1 Q. What does this photograph show, 213?

2 A. That -- I mean, you can see the red, so that's
3 actually where it started to get into the trees, and the
4 flames started to get taller.

5
6 (Exhibit 214 was marked for identification.)

7
8 Q. 214?

9 A. Pretty much the same, with more smoke. Yeah.

10
11 (Exhibit 215 was marked for identification.)

12
13 Q. 215?

14 A. Same, same thing pretty much.

15 Q. You're just clicking pictures up there?

16 A. Yeah. So we were told to stay there. And
17 that's another thing to keep in mind, we were told to
18 stay there because we needed to have all the generators
19 hooked up and everything because we knew about this point
20 or maybe a little bit after this that this fire was going
21 to not -- obviously not going to be put out for a while
22 just because of the wind and the conditions. So we had
23 to make sure that -- I'm actually calling my supervisor
24 and sending him stuff, giving him updates on this. And
25 so we stayed there and basically until the power burned
26 out and then hooked up those generators and left.

1 Q. How long was that?
2 A. I don't even think we left until maybe after
3 10:00. 10:30 maybe, 10:15.
4 Q. That morning?
5 A. Yeah. Yep.
6 Q. And --
7 A. And we drove that way.
8 Q. You drove down the canyon?
9 A. Yep.
10
11 (Exhibit 216 was marked for identification.)
12
13 Q. And this is photo number 216. What can we see
14 here?
15 A. It's actually a lot more smoke. So getting
16 closer up this ridge.
17
18 (Exhibit 217 was marked for identification.)
19
20 Q. 217, if you can kind of narrate these.
21 A. A lot of it, just more smoke.
22
23 (Exhibit 218 was marked for identification.)
24
25 Q. 218?
26 A. So that, that photo that I said was the

1 beginning, this was like one of the last. And that's in
2 basically one hour --

3 Q. So from --

4 A. -- from that. From that.

5 Q. From 212 to 218?

6 A. That's about an hour. So that kind of gives
7 you -- and if you saw a fire that small in the beginning,
8 you would never think that it would look like that in one
9 hour. Nobody would. So --

10

11 (Exhibit 219 was marked for identification.)

12

13 Q. Then finally, 219?

14 A. Yep.

15 Q. And was this taken from the same vantage point?

16 A. No. So from the backside of the powerhouse
17 where the water goes through to the river is called the
18 tail race. So the tail race is actually around the
19 corner. This is up in the parking lot.

20 Q. Okay. And that's it. You took all those
21 photographs that morning as you were standing there
22 watching the fire?

23 A. Yep. Basically just waiting on instructions
24 what we were supposed to do.

25

26 EXAMINATION

1
2 BY MR. FOGG.

3 Q. (WITNESS #3), why did you send the Paradise
4 residents and your crew home?

5 A. So I sent, I sent them home because I also have
6 family members that live in Paradise, and they said they
7 could see the fire from the edge of the canyon where they
8 lived. So I knew that I needed to get them there.

9 MR. FOGG: Do any of the Grand Jurors have
10 questions for (WITNESS #3)?

11 MR. NOEL: Almost done. They get to ask you a
12 question or two.

13 (Counsel and Grand Jury Foreperson confer.)
14

15 EXAMINATION
16

17 BY MR. NOEL

18 Q. (WITNESS #3), one of the jurors asks, how did
19 you know the fire was burning towards Paradise?

20 A. Well, I might have answered that when we were
21 sending it up. So my wife's family lives in Paradise,
22 and they called her, she called me, and they said they
23 could already see the fire coming towards Paradise. So
24 that's why I made the call to send the guys out of there,
25 the ones that lived in that area.

26 Q. Did all your guys and their families make it

1 out safe?

2 A. They did.

3 Q. All your family make it out safe?

4 A. Yes.

5 MR. NOEL: Anything further?

6 That's all we have. She's going to have an
7 admonition and then you're going to be done.

8 THE WITNESS: Okay.

9 GRAND JURY FOREPERSON: (WITNESS #3), you are
10 admonished not to discuss or disclose at any time outside
11 of this jury room the questions that have been asked of
12 you or your answers until authorized by this Grand Jury
13 or the Court. A violation of these instructions on your
14 part may be the basis for a charge against you of
15 contempt of court. This does not preclude you from
16 discussing your legal rights with your own attorney.

17 (WITNESS #3), what I have just said is a
18 warning not to discuss this case with anyone except the
19 Court, your lawyer, or the district attorney. Do you
20 understand?

21 THE WITNESS: I understand.

22 GRAND JURY FOREPERSON: Okay. Thank you so
23 much.

24 MR. NOEL: Thank you, sir.

25 THE WITNESS: Thank you.

26 MR. NOEL: Thank you for being here.

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[DISCUSSION OMITTED.]

(Lunch Break taken.)

GRAND JURY FOREPERSON: We're ready. All the jurors are present.

MS. RICHARDS: The People are now calling (WITNESS #14).

GRAND JURY FOREPERSON: (WITNESS #14), before you proceed, can you -- before you're seated, would you raise your right hand to be sworn, please.

(WITNESS #14)
having been called as a witness in
the matter now pending, having been first
duly sworn, testifies as follows:

THE WITNESS: I do.

GRAND JURY FOREPERSON: Thank you. Have a seat, please.

EXAMINATION

BY MS. RICHARDS

Q. Good afternoon, (WITNESS #14).

A. Good afternoon.

Q. Can you please state your full name for the record.

1 A. (WITNESS #14).

2 Q. Do you also go by (WITNESS #14)?

3 A. Yes.

4 Q. And where do you currently work?

5 A. I work at PG&E in Redding, California.

6 Q. What is your current position with PG&E?

7 A. Lineman.

8 Q. And when did you first start to work for PG&E?

9 A. It will be February 4th, 2002.

10 Q. What was your first position with PG&E?

11 A. It would be utility worker.

12 Q. And, briefly, what did you do as a utility

13 worker?

14 A. Any kind of ground work; digging holes,

15 flagging, anything that wasn't in the air, labor work.

16 Q. Would you -- would it be fair to characterize

17 that as "unskilled labor"?

18 A. Yeah, I'd say.

19 Q. Okay. And what was your next job with PG&E?

20 A. An apprentice lineman.

21 Q. When did you begin as an apprentice lineman?

22 A. It would have to be around 2004, 2005, that

23 neighborhood.

24 Q. What kind of training did you have for your

25 working as an apprentice lineman?

26 A. It was a three-year apprenticeship and

1 on-the-job training.

2 Q. Okay. And during that apprenticeship, did you
3 have training on how to perform inspections?

4 A. No.

5 Q. How to perform -- or training on how to perform
6 overhead patrols?

7 A. No.

8 Q. And what was your next position with PG&E?

9 A. It would be journeyman lineman.

10 Q. Okay. When did you become a journeyman
11 lineman?

12 A. Offhand, I'd want to say '06, '07, right in
13 there. I don't know exactly, the exact year.

14 Q. And what division of PG&E did you work in when
15 you were a journeyman lineman?

16 A. General construction and then transmission
17 line.

18 Q. How long were you in general construction?

19 A. Oh, as a journeyman I'd say five years or so,
20 roughly. In that neighborhood.

21 Q. And what was your main duties in general
22 construction?

23 A. New construction of power lines; rebuilding,
24 replacing poles, towers, anything of that nature.

25 Q. Did you do inspections as part of general
26 construction?

1 A. No.

2 Q. And what was your next position within PG&E?

3 A. It would be journeyman lineman and transmission
4 line department, or grid.

5 Q. And approximately when did you become a
6 journeyman lineman in the transmission department?

7 A. It would have to be 2011, 2012, in that
8 neighborhood.

9 Q. Where were you located at that point?

10 A. Initially Eureka for one year, and then Table
11 Mountain in Oroville.

12 Q. And so approximately what, approximately what
13 year did you come to Table Mountain?

14 A. 2012, 2013.

15 Q. And what were your main duties as a lineman at
16 Table Mountain?

17 A. Any kind of maintenance on power lines;
18 energized work, insulator change out, just the whole
19 scope of line maintenance repair, replacing.

20 Q. Did you ever -- oh, actually let me ask you
21 another date question. When did you leave your position
22 as journeyman lineman at Table Mountain?

23 A. Oh, it would be, I want to say 2016.

24 Q. Okay. And is that the time when you went to
25 your current position?

26 A. Yes.

1 Q. So I'm going to ask you questions mostly about
2 your time at Table Mountain as a journeyman lineman
3 there.

4 A. Okay.

5 Q. During your time as a journeyman lineman, did
6 you ever perform any kind of inspections?

7 A. Yes.

8 Q. Okay. Did you have any additional training
9 when you became a transmission lineman on how to perform
10 detailed ground inspections?

11 A. No, not on the inspection aspect of it.

12 Q. Okay. Did you have any training regarding air
13 patrols?

14 A. No.

15 Q. Okay. Did you have any additional training, in
16 general, for transmission work when you came to work on
17 transmission lines?

18 A. It would be when I went to the T-man role. It
19 would be a switchman training, how to operate equipment.

20 Q. Okay. Is that related to how to turn on and
21 off lines?

22 A. Yes.

23 Q. Did you ever have any occasion at Table
24 Mountain to perform air patrols?

25 A. Yes.

26 Q. Okay. And were you, were you ever -- did you

1 ever take on the role of a troubleman?

2 A. Yes.

3 Q. Okay. What were the circumstances?

4 A. There was a, one of the troublemen was retiring
5 and one had retired, so I filled in on a temporary basis
6 as a transmission troubleman.

7 Q. And other than switching training, did you have
8 any additional training for that role?

9 A. No, just on the job.

10 Q. Okay. I'm going to ask you about air patrols.

11 Now, you said you conducted air patrols?

12 A. Yes.

13 Q. What kinds of problems were you taught to look
14 for during an air patrol?

15 A. During an air patrol would be a low-level
16 flight where we would look for any obvious problems with
17 the tower, with the lines, vegetation, anything of that
18 nature. Anything you could see from the air properly
19 with a helicopter.

20 Q. Can you give me some examples of the problems
21 you most commonly saw during an air patrol?

22 A. Most common on an air patrol would either be
23 conductor issues or -- actually, the most common would be
24 insulators, broken insulators, flashed insulators, things
25 of that nature.

26 Q. How close to the towers were you able to get

1 during an air patrol?

2 A. It was honestly as close as the ground
3 conditions and adjacent towers would allow you to get to
4 the structures you were looking at. You could get as
5 close to landing on top of them sometimes, or sometimes
6 you were a hundred feet plus above them.

7 Q. Are you familiar with the Caribou-Palermo 115
8 kV line?

9 A. Yes.

10 Q. Do you know approximately how many towers are
11 in the Caribou-Palermo 115 kV line?

12 A. Four- to five hundred.

13 Q. How long would you expect -- or how many hours
14 would you expect to spend patrolling a line of that size,
15 400 to 500 tower transmission line, like the
16 Caribou-Palermo line?

17 A. It would be a good solid full day of flying, an
18 eight-hour day I would say to really look at that one.

19 Q. How long would you be able to spend looking at
20 each tower?

21 A. There wasn't a time limit. If there was any
22 problems or anything suspect, they could take as much
23 time as needed. But on average, you, you're just looking
24 at each tower for a minute or two maybe.

25 Q. When you would perform an air patrol, for most
26 towers would you stop and hover or would you be able to

1 keep going at a slow pace?

2 A. It would be move at a very slow pace unless
3 there was something suspect, then I would have him hover,
4 use binoculars -- if I was too high above the structure
5 and couldn't see with the naked eye very good, I would
6 have them hover and use binoculars, get a better vantage
7 point, if possible.

8 Q. Okay. Did you ever perform ground inspections?

9 A. Yes.

10 Q. Okay. And, in your opinion, based on your time
11 at Table Mountain and also at Eureka, what is the
12 difference in your duties when you perform a ground
13 inspection as compared to an air patrol?

14 A. Ground inspection was more detailed looking at
15 the structures, the surrounding areas. You're on foot,
16 you're walking to each structure or driving, and then you
17 have to inspect the span of wire. It would be a more
18 detailed look at the structures. More time spent.

19 Q. Okay. And how much time on average would you
20 spend on a 115 -- 115 kV tower like the Caribou-Palermo
21 towers?

22 A. Not counting -- if -- a lot of it was
23 inaccessible -- not counting hiking, once you're at the
24 structure, you'd get a good five to seven minutes or so
25 actually just sitting there looking at things on the
26 tower.

1 Q. And you said that that time estimate doesn't
2 include getting to the towers. Are there any specific
3 considerations or any specific environmental conditions
4 that would make it hard to get to some towers --

5 A. Yes.

6 Q. -- on the Caribou-Palermo line?

7 A. Yes. The steep terrain, lack of roads,
8 vegetation. Just the location of it. And a lot of spots
9 made it more difficult, so that would take you some time
10 to get from tower to tower.

11 Q. Okay. And what were the most commonly found
12 problems for you during ground inspections?

13 A. Commonly found problems would be insulators
14 again. We would look at the footings on the towers, some
15 deterioration on that; the lower side of the insulators
16 that you could see from the ground, connectors, things of
17 that nature.

18 Q. Okay. And did you ever perform infrared
19 inspections?

20 A. Yes.

21 Q. Okay. Can you tell the Grand Jury what an
22 infrared inspection is.

23 A. It's a flight. We flew in the helicopter,
24 there was an infrared camera on the tin bubble of the
25 helicopter, and the contractor sitting in the backseat.
26 And it would give a heat signature of any hot spots in

1 the conductors, connectors, any point like that. The guy
2 would have a heat signature there. And if they were
3 suspect or there was a problem, then I would be there to
4 write the tag on it and make sure it got fixed.

5 Q. Did you, did you have any other role during the
6 infrared inspection?

7 A. No. No. Mainly I was a tour guide; show them
8 the lines, and then if they did find any problems, my
9 duty was to write a notification to get the problem
10 repaired.

11 Q. Would an infrared inspection usually take,
12 would an infrared inspection for a line like the
13 Caribou-Palermo line generally take more time, less time,
14 or the same amount of time as a routine air patrol?

15 A. It would take less time, because they could
16 move at a steady pace over the tower. He was looking
17 probably three or four towers ahead while he was doing
18 it. And we were at a higher level. Camera would pick up
19 the hot spots.

20 Q. Okay. And so I've asked you about air patrols,
21 ground inspections, infrared inspections. Did you ever
22 do any kind of climbing inspections?

23 A. No.

24 Q. Did you schedule your own patrols and
25 inspections?

26 A. No.

1 Q. Who scheduled those?

2 A. That would come from I believe the, I believe
3 the supervisor. Or they each had their own, they had
4 their own schedule based on their time between patrols,
5 but I was allotted them from the supervisor and the
6 clerk.

7 Q. Were you allotted a certain amount of time or
8 certain amount of days to perform a patrol?

9 A. Yes.

10 Q. And did you have the ability to decide to
11 substitute one type of patrol over another type of
12 patrol?

13 A. No.

14

15 (Exhibit 188 was marked for identification.)

16

17 Q. Okay. I'm going to show you Grand Jury Exhibit
18 No. 188. Can you see the exhibit behind you?

19 A. Yes.

20 Q. Okay. Do you recognize what this is a picture
21 of?

22 A. Yes. String of insulators.

23 Q. Okay. And can you tell where this picture was
24 taken from?

25 A. This one was either taken from the tower,
26 possibly a helicopter if it can get in low enough.

1 Q. Okay. And does this look like a string of
2 insulators that you would see on the Caribou-Palermo
3 line?

4 A. Yes.

5 Q. And I'm going to ask you just a few questions
6 about what you would call different parts of this. If
7 you -- I'm going to zoom in right here on the top of the
8 insulator.

9 A. Uh-huh.

10 Q. Do you see the curved piece that's hanging in
11 the hole?

12 A. Yes.

13 Q. What would you call the curved piece?

14 A. C hook.

15 Q. What would you call the hole that it's in?

16 A. Rigging eye. Rigging eye.

17 Q. Would you call this the hot end or the cold
18 end, or some other thing?

19 A. This would be the cold end.

20 Q. Why is it called the cold end?

21 A. Because the energized conductor is the hot end.
22 This is the part you can touch.

23 Q. All right. And do you see these hooks and eyes
24 regularly on the Caribou-Palermo line?

25 A. Yes.

26 Q. And do you see them regularly in your work just

1 on transmission towers?

2 A. Yes.

3 Q. In your experience, do the hooks come in very
4 many different sizes?

5 A. No. No. I think there's two different sizes,
6 but it's a pretty standard size. The difference would be
7 in the socket size actually on the insulator. But other
8 than that, no.

9 Q. And then in your experience do the eyes that
10 the hooks hang in come in a lot of different sizes?

11 A. Yes.

12 Q. Okay.

13 A. Depending on the towers, the strain they see,
14 the voltage; different variables.

15 Q. On the Caribou-Palermo, did you, in your
16 experience, did the eyes come in a lot of different sizes
17 on that particular line?

18 A. No.

19 Q. Okay.

20 A. It would be, roughly, the same.

21 Q. Okay. I'm going to have you look again at this
22 picture. And looking at that picture, do you see the gap
23 between the hook and the eye?

24 A. Yes.

25 Q. Okay. Can you tell us, can you tell anything
26 from that gap looking at the picture?

1 A. Looking at that picture, you can see there's
2 wear.

3 Q. Okay.

4 A. Either the hook or the eye is sitting lower
5 than would be normal.

6 Q. Okay. And how can you tell that?

7 A. The amount of space on the top side of that, of
8 that rigging eye.

9 Q. Have you ever seen wear like this during your
10 work at PG&E?

11 A. No, not to that extent.

12 Q. Okay. Could you have seen this wear during a
13 ground patrol?

14 A. You'd have a hard time seeing that wear during
15 a ground patrol.

16 Q. If somebody had told you to look for this type
17 of wear during a ground patrol and asked you to focus on
18 seeing this type of wear, do you think you would have
19 been able to look for it?

20 A. You'd have to climb the tower to really see it.
21 What you'd need to see there from the ground, it would be
22 very hard.

23 Q. Okay. And do you think you could see this type
24 of wear from a helicopter?

25 A. You could possibly see it if you could get in
26 close enough to catch it.

1 Q. Okay. Were you ever told to look for this type
2 of wear during any of your training, either formal
3 training or informal training?

4 A. Not specifically. I mean, it was part of what
5 we looked at, or we could try to see, but it wasn't a
6 specific thing I would say. It's more of an overview of
7 anything that can go wrong on the tower.

8 Q. So were you generally told to look for this
9 type of wear?

10 A. You're looking for that type of thing, yes, but
11 not really told to. I mean, that's just kind of the job.
12 So you're looking at the attachment points on the tower,
13 steel, down low, so you should be looking for something
14 like that. It's a matter of seeing it, though, would be
15 the hard part.

16 Q. Let's see, could you identify this type of
17 problem during an infrared patrol?

18 A. No. No, not during infrared.

19 Q. Why not?

20 A. You're flying too fast at too high of a level.

21 Q. Were you ever instructed on how to monitor wear
22 in attachment points --

23 A. No.

24 Q. -- during inspections?

25 A. No. Just do visual.

26 Q. And were you ever told, were you ever told that

1 there was a potential for these type of hook and eye
2 connection points to fail?

3 A. No, I was never told that there could be, there
4 could be wear. In my experience, though, I never saw any
5 kind of wear like this.

6 Q. Have you ever replaced an insulator string?

7 A. Yes.

8 Q. Okay. Can you tell me whether a hook would be
9 taken out of the eye when you replace an insulator
10 string?

11 A. Almost always.

12 Q. Okay.

13 A. Yes. If you're putting new insulators on
14 there, unless the hook looked good, most of the time,
15 almost 90 percent, we replace the hook and everything.

16 Q. When would you have an occasion to reuse the
17 hook?

18 A. If the hook wasn't damaged and if we didn't
19 have another one, which is almost never the case, and
20 only if the hook looked like it was -- you know -- didn't
21 have the wear, looked good.

22 Q. One moment.

23

24 (Exhibit 226 was marked for identification.)

25

26 Q. Okay. I'm going to show you a document, Grand

1 Jury Exhibit 226. First page. Do you recognize this
2 document?

3 A. Yes. That would be the cover page for the
4 patrol.

5 Q. What year was this patrol done?

6 A. 2015.

7 Q. All right. I'm going to turn now to page 3.

8 I'm going to zoom into the top corner. It says inspector
9 name (WITNESS #14). Is that you?

10 A. Yes.

11 Q. Okay. It says date completed, 7/20/15?

12 A. Yes.

13 Q. What date would that correspond to?

14 A. As far as?

15 Q. Well, let me ask you -- let me back up. Did
16 you complete this air patrol?

17 A. Yes.

18 Q. And is this handwriting yours in the, on the
19 form in front of you?

20 A. Yes.

21 Q. Okay. Did you fill out the date, date
22 inspection completed, 7/20/15?

23 A. Yes.

24 Q. Okay. What date would you use to fill in that
25 spot on the form? Would it be the date you started the
26 inspection or would it be the date that you finished

1 flying the tower?

2 A. The completion of everything, paperwork and all
3 tags.

4 Q. Okay. And can you tell me just a little bit
5 about how you would complete the patrol?

6 A. Oh, I would, I would fly the line, I would make
7 my notes, and then I would compare my notes to the prior
8 problems on that line, and then fill it out accordingly
9 in the office. And then write my notifications on the
10 problems that I found.

11 Q. So we're still looking at the Transmission Line
12 Inspection Data Sheet. And there's a box for inspection
13 findings data. Did you make any inspection -- did you
14 make any findings during this air patrol?

15 A. Yes.

16 Q. Okay. What did you find during this air
17 patrol?

18 A. That would be the three broken, three sets of
19 broken insulators there.

20 Q. Did you find anything else during this air
21 patrol?

22 A. No.

23 Q. Okay. I'm going to go down to the next page.
24 Can you tell me what this sheet is on the next page?

25 A. This would be the priors. They call it the
26 "priors." This would be any problems that were already

1 previously found on this line.

2 Q. And where would the sheet come from? Did you
3 put together this, this chart of priors?

4 A. No, this was already put together and in the
5 patrol packet.

6 Q. Okay. And did you receive that -- who did you
7 receive that from?

8 A. From the clerk.

9 Q. Okay. And would you take this sheet up with
10 you when you were completing the air patrol?

11 A. No. No.

12 Q. Okay.

13 A. No.

14 Q. When would you get this sheet?

15 A. Oh, it was in the packet, but I would do my own
16 notes when I made a patrol. And I found that to be a
17 better way to do it, so that I didn't have a tendency to
18 just look at the priors, looking for new problems and
19 then compare them afterwards on what I found.

20 Q. Okay. And if you look at this sheet, do you
21 see dozens of priors listed on this sheet?

22 A. Yes.

23 Q. Okay. What, do you see one type of prior
24 repeated over and over again?

25 A. Yeah. I mean, that's a connector issue.

26 Q. Do you know what that refers to?

1 A. They, they were the connectors on the line.
2 They were a bolted-style connector which PG&E is wanting
3 to get away from. So they were wanting to go with a
4 press connector, fired wedge connector on all those
5 locations right there.

6 Q. Okay. All right. I'm going to take you down
7 to the transmission object list, and we're going to go
8 all the way down to page 45 of this document.

9 Okay. We're on page 45 of this exhibit. We're
10 on the Transmission Line Object List. It's actually page
11 39 of the object list. Do you recognize this document?

12 A. Yes.

13 Q. Okay. Is this something that you would use
14 during your air patrol?

15 A. Yes.

16 Q. Okay. What is it?

17 A. It's -- all it is is each location of each
18 tower, gives you tower number. And if you had any
19 findings, then you would note it completed no problems,
20 completed new findings, or preexisting, or not patrolled
21 in this cycle. So I filled out, which I did or found.

22 Q. Is there a space on this Transmission Line
23 Object List that corresponds to each steel tower?

24 A. Yes.

25 Q. And let me ask you, is the Caribou-Palermo line
26 predominately made up of towers or poles?

1 A. It's predominately lattice steel towers.

2 Q. And does an air patrol change depending on

3 whether you're inspecting steel towers or wood poles?

4 A. No.

5 Q. Okay. Why not?

6 A. The patrol criteria is the same. Wood poles --

7 let's see, so steel -- if you're looking at wood poles,

8 you'd see deterioration. You'd be looking for things of

9 that nature versus just insulators and obvious problems

10 that you could find on the steel.

11 Q. Okay.

12 A. If that makes sense.

13 Q. All right. Let me -- I'm going to ask you a

14 hypothetical question. If you were conducting a routine

15 air patrol and you came across a section of the line

16 where the transmission tower was no longer there, but

17 there was a wood pole there instead, what would you do?

18 Would you note that on your air patrol sheet?

19 A. I can't say that I would.

20 Q. Okay. And why?

21 A. I would inspect the structure the same.

22 Q. Okay. How would you go about inspecting the

23 structure?

24 A. I would inspect it like I was inspecting the

25 steel structure, but looking the poles over for

26 deterioration that I could see.

1 Q. Okay. And you said you don't think you would
2 note it on your Transmission Line Object List. Why is
3 that?

4 A. The ones in case were temporary. That's where
5 I would be with that, is a temporary construction.

6 Q. Okay. And then we talked earlier today; is
7 that right?

8 A. Uh-huh.

9 Q. Okay. And I showed -- and did we talk about
10 this Transmission Line Object --

11 A. Yes.

12 Q. -- List right here? And I asked you if you
13 recalled a time when some transmission towers on the
14 Caribou-Palermo line had been replaced by wood poles?

15 A. Yes.

16 Q. And do you recall that happening?

17 A. Yes.

18 Q. Okay. And were you a part of that?

19 A. Yes.

20 Q. Okay. And what was your role in replacing the
21 towers with the poles?

22 A. I was a lineman up there working on them. The
23 towers collapsed and did temporary wood poles get the
24 line back on.

25 Q. And are you familiar with the, which specific
26 poles were actually replaced?

1 A. As far as by number, not really.

2 Q. Okay. I'm going to point you towards tower
3 22/188. Oh, next page. All right. 22/188. Do you see
4 the entry for 22/188?

5 A. Yes.

6 Q. Okay. Can you tell what box you checked there?

7 A. "Preexisting condition" checked.

8 Q. Okay. I'm going to ask you to assume that that
9 box is one of, that box corresponds to 22/188, which was
10 one of the towers that was replaced by wood pole.

11 A. Yes.

12 Q. Do you know why, sitting here today, you would
13 have checked preexisting condition checked when this
14 lattice steel tower was no longer there?

15 A. Either I marked the box wrong or they actually
16 still used those same connectors when they swung the wire
17 over for the jumpers, which is possible due to the fact
18 they didn't, that's a different size wire and it's hard
19 to get connectors for. It would be one of those two
20 reasons.

21 Q. Okay. And sitting here today, do you know the
22 answer to that?

23 A. No. That was a few years ago now. Without
24 going up there, I wouldn't know offhand.

25 Q. Okay.

26 That will be the rest of the questions for me.

1 I have to leave for another court appearance. Mr. Fogg
2 is going to take over with a few more questions.

3 THE WITNESS: Okay.

4 MS. RICHARDS: Thank you.

5

6 EXAMINATION

7

8 BY MR. FOGG

9 Q. Afternoon, (WITNESS #14). What's a three-bolt
10 connector?

11 A. A three-bolt connector?

12 Q. Yeah.

13 A. It is -- so it's a two-piece connector with two
14 grooves on one side, two grooves on the other, and it
15 goes on and sandwiches the conductors. So if you have a
16 main conductor running, you want to run a jumper to it,
17 it will sandwich that together. And it tightens with
18 three bolts down on the bottom.

19 Q. Have you ever replaced a three-bolt connector
20 on 115 kV line?

21 A. Yes.

22 Q. How long does it take from when you first get
23 to the tower, you're standing at the base of it, to when
24 you're all done replacing the three-bolt connector? How
25 long does that take?

26 A. Shoot, the base of the tower on up, get the

1 connectors, it could take anywhere from two to four hours
2 by the time you get the ladders and everything up there
3 to do them.

4 Q. So on a line like the Caribou-Palermo where the
5 terrain is pretty hilly --

6 A. Yes.

7 Q. -- how many three-bolt connectors could a crew
8 replace in a day, approximately?

9 A. That would be hard to say. If they're using a
10 helicopter, if they were using a helicopter maybe four
11 towers' worth or so.

12 Q. And how many guys do you need on a crew to
13 replace a three-bolt connector?

14 A. They would call for probably three.

15 Q. And to replace it do you actually have to climb
16 up the tower?

17 A. Yes.

18 Q. So if you're in a tower for a couple hours
19 replacing a three-bolt connector --

20 A. Uh-huh.

21 Q. -- do you do a climbing inspection at the same
22 time?

23 A. It wouldn't be a formal inspection. Things
24 would probably catch your eye, I would say.

25 Q. Were you formally trained by PG&E when you were
26 replacing a three-bolt connector to look at, inspect the

1 rest of the tower, or at least give it a look?

2 A. No formal training. It would be just kind of
3 a, what you would do on your own.

4

5 (Exhibit 191 was marked for identification.)

6

7 Q. I want to switch now to Grand Jury Exhibit 191.
8 Okay. Before I show you 191, you've testified earlier
9 that to find some of the wear in C hook you need to do
10 climbing and such? I apologize for re-covering some
11 ground again, but why would you need a climbing
12 inspection to see that, this wear on a C hook?

13 A. Just a better vantage point. The whole thing
14 is you're looking at maybe an inch hole, inch and a
15 quarter hole with another piece of metal that's maybe 7/8
16 of an inch or so going through it. With a naked eye from
17 the ground, even with binoculars, it would be hard to
18 see.

19 Q. I want to show you now Grand Jury Exhibit 191.
20 What's in Grand Jury Exhibit 191?

21 A. This would be a C hook in the cold end
22 suspension on the tower.

23 Q. From that image can you tell anything about
24 whether the C hook or the eye is worn?

25 A. There's definite wear.

26 Q. What vantage point would you need to have to

1 take a picture like Grand Jury Exhibit 191?

2 A. That would be, you'd have to be in the tower
3 for that one.

4 Q. So you couldn't get this picture from a ground
5 inspection?

6 A. Not a ground inspection, I would say, unless
7 you were at a hill right there where you were looking
8 directly at it.

9 Q. How about an air inspection?

10 A. That would even be a tough one on an air
11 inspection.

12 Q. Why would that be a tough one on an air
13 inspection?

14 A. If you could -- all depends how close you could
15 get the helicopter to it to really get in there and see
16 it, get a picture of it like that.

17 Q. When you say close, is that a function of both
18 how close and also what angle?

19 A. That, that's -- yeah, exactly. Because from
20 the ground, if you're looking at it from a ground angle,
21 the insulators are covering it up pretty good. So you'd
22 almost have to get a straight-on angle at it.

23 Q. (WITNESS #14), one more second to check my
24 outline and then we'll see if the Grand Jurors have any
25 questions after that.

26 Do you know how old the Caribou-Palermo line

1 is?

2 A. Hundred years, possibly.

3 Q. How do you know that?

4 A. Just from what I've heard. And then mainly --
5 mainly, from what I've heard, when it was built, it was
6 built with the railroad. And then that would be the main
7 way. We've taken insulators down, but they weren't quite
8 a hundred years back.

9 MR. FOGG: So to the Grand Jury, you've heard
10 me say this before, but when you have a hearsay statement
11 such as "I heard the line is a hundred years old," please
12 don't take that to prove that it's a hundred years old,
13 but you can take it to understand (WITNESS #14)' answers
14 to the next couple of questions I ask him.

15 Q. (By MR. FOGG) So, (WITNESS #14), how would the
16 age of the line change how you'd conduct an aerial
17 inspection of the Caribou-Palermo line?

18 A. I don't think it would.

19 Q. Why not?

20 A. You're supposed to look at everything kind of
21 the same. And I don't know if the age necessarily.
22 Terrain and environmental factors, but the age of the
23 line is still --

24 Q. We'll get to terrain, environment in just a
25 second.

26 A. Yeah.

1 Q. How would the age of the line affect how you
2 would climb the tower to do repairs on it?

3 A. In the case of this line right here, not so
4 much the age, but just the way the towers were built,
5 they were built, engineered right up, there's not a lot
6 of thick steel on them. So as you're rigging, your
7 moving conductors, changing weight or strains on them,
8 you have potential to collapse the tower. So you would
9 definitely be a little more cautious and make sure you,
10 your attachment points and rigging points and everything
11 were, were on the up and up for sure.

12 Q. Okay. Let's end now with my questions on
13 you've mentioned terrain and environmental factors. What
14 was the terrain like along the Caribou-Palermo line?

15 A. It's on the wall of the Feather River Canyon.

16 Q. How does, how does that terrain affect how you
17 conduct an air patrol?

18 A. As far as what I'm looking at or as far as what
19 I can see?

20 Q. Clarification. How does the terrain affect
21 what you can see in the line during an air patrol?

22 A. It has a pretty good affect on it. Depending
23 on how close I can get down due to hillside, adjacent
24 structures, things of that nature.

25 Q. So is it fair to say that the more constrained
26 or tight the area, the harder it is to get close in the

1 helicopter?

2 A. Yes. Yes. Definitely.

3 Q. What -- you've also mentioned environmental
4 factors on the Caribou line. What were those
5 environmental factors?

6 A. Just the area it was built in, pretty much
7 where it was. It's pretty steep and rugged country.

8 Q. (WITNESS #14), those are the questions I have
9 for you. I'll take a moment to consult my colleague.

10 And if any of the Grand Jurors have questions,
11 we'll ask you for those in a second.

12 (Counsel confer.)

13

14 EXAMINATION

15

16 BY MR. NOEL

17 Q. (WITNESS #14), my name is Marc Noel. I'm the
18 deputy DA.

19 A. All right. Good to meet you.

20 Q. Did you say that you worked on fixing the
21 Caribou-Palermo line after the 2012 collapse?

22 A. Yes.

23 Q. Do you remember how many towers collapsed?

24 A. I want to say -- I would say five or six, in
25 that neighborhood.

26 Q. Pretty major incident; correct?

1 A. Yes.

2 Q. And those were replaced by what?

3 A. At that point, it was temporary wood

4 structures. And the last that I had heard, they were

5 going back to steel structures on that section of line.

6 Q. Is there a name for the type of temporary

7 wooden structure?

8 A. It would be a wooden structure.

9 Q. The entire thing -- have you heard the term

10 "shoo-fly"?

11 A. Yes. And that's, that would be the temporary

12 part of it.

13 Q. Do you remember how many temporary wooden

14 structures replaced the five or six downed towers?

15 A. That would be five or six, maybe a couple more.

16 I'm not a hundred percent positive. That was a little

17 time ago.

18 Q. Okay. Are you familiar with the *Electric*

19 *Transmission Preventative Maintenance Manual* guide?

20 A. Yes.

21 Q. You've used it before?

22 A. Yes.

23 Q. Is it something that you're issued as a PG&E

24 lineman?

25 A. I don't think I have had issued it.

26 Q. Patrolman?

1 A. It was in our bull room.

2

3 (Exhibit 155 was marked for identification.)

4

5 Q. Showing you what's been marked as Exhibit No.
6 155, ask you to take a quick look at that and tell me if
7 you recognize it.

8 A. Okay. Yeah, I recognize that.

9 Q. Do you want to look through the inside? You
10 don't have to read it all, but --

11 A. Yeah, it's just a criteria, criteria on what
12 you're supposed to be looking at.

13 Q. That's the 2015 version of the *Electric*
14 *Transmission Preventive Maintenance Manual*; correct?

15 A. Yes.

16 Q. And PG&E issues, reissues that every so often
17 with updates; correct?

18 A. Yeah.

19 Q. Okay.

20 A. Revised.

21 Q. I want to flip to the pages marked, looking at
22 table 1. -- what is it, 1.3?

23 A. Table 13.

24 Q. Thirteen, I'm sorry. And the section of the
25 Caribou-Palermo line fell down in the winter of 2012;
26 correct?

1 A. Yes.

2 Q. And you were one of the guys who were up there
3 that replaced the metal structures with temporary wooden
4 poles in 2013 --

5 A. Yes.

6 Q. -- correct?

7 Now, this table defines the inspection
8 schedules for different types of transmission lines;
9 correct?

10 A. It does.

11 Q. And for a 115 line, for a wooden structure,
12 what is the inspection schedule?

13 A. Your frequency would be at two years.

14 Q. So detailed inspections every two years?

15 A. Two years.

16 Q. And you did the '15 inspection?

17 A. I did a '15 air patrol. I did not do a
18 detailed on that one.

19 Q. Are you aware of if anybody did a detailed
20 inspection?

21 A. I do believe so. I'm not aware of who, but I
22 did not have the detailed inspection in that line.

23 Q. But you did the air patrol?

24 A. Yes.

25 Q. So you don't have any idea who would have done
26 the detailed in '15?

1 A. No. Maybe (WITNESS #1). I'm not positive on
2 who. I know I didn't do it, that's all I know.

3 Q. Do you remember who were the troublemen at
4 Table Mountain in '15?

5 A. Yeah, I was a temporary troubleman, (WITNESS
6 #1), (WITNESS #11), (WITNESS #10).

7 Q. I think (WITNESS #1) testified -- he retired at
8 the end of the '14, so he wouldn't have been around, but
9 either (WITNESS #11) or (WITNESS #10) were also there?

10 A. It's possible.

11 Q. So there's a detailed inspection between one of
12 those guys?

13 A. It's possible. Or someone on the crew. I
14 can't recall that at this point. But I know that it
15 wasn't me.

16 Q. Okay. Thank you, sir.

17 A. All right.

18 MR. NOEL: That's all I have.

19 MR. FOGG: Do any of the Grand Jurors have
20 questions of (WITNESS #14)?

21 (WITNESS #14), the Grand Jurors write down
22 their questions, so we'll take a second, take a look at
23 those, and then ask you the questions.

24 (Counsel and Grand Jury Foreperson confer.)

25 MR. FOGG: Okay. (WITNESS #14), I have a few
26 follow-up questions from the Grand Jury.

1
2 EXAMINATION
3

4 BY MR. FOGG

5 Q. The first one is did you ever receive any
6 training about standards for the size of rigging eyes on
7 transmission towers?

8 A. No. There wouldn't be a formal training on
9 that, I don't believe. Size of rigging eyes?

10 Q. Yeah. The diameter of rigging eyes.

11 A. It would only be bigger on, how your 500 kV
12 lines and some of the bigger 230s, bigger conductors,
13 there would be a difference in the size.

14 Q. Did you ever receive any specific training from
15 PG&E about the size of a, what would be the proper size
16 of rigging eyes on a 115 line?

17 A. No. No normal training on that.

18 Q. How about did you ever receive any formal
19 training about how large a C hook should be?

20 A. No. No formal training on that.

21 Q. Did you ever receive any on-the-job training
22 about how big a rigging eye should be?

23 A. No. They're pretty standard size. We're
24 talking size from wear, or just their normal size?

25 Q. How they should be.

26 A. Oh, yeah. No. Deterioration would occur. It

1 would be obvious if there was deterioration in it.

2 Q. By that do you mean they would start as, the
3 holes would start as round?

4 A. Round, yes.

5 Q. Then become oblong --

6 A. Exactly.

7 Q. -- with more wear?

8 A. Exactly.

9 Q. You mentioned that when replacing an insulator
10 string you had, I think you said 90 percent of the time
11 you'd replace the C hook --

12 A. Yes.

13 Q. -- at the same time?

14 What would you do with the C hook once you took
15 it off the tower?

16 A. It either went in a grunt sack or got air
17 mailed off the tower.

18 Q. What is a grunt sack?

19 A. Just a bag that we put our tools in and, tools
20 and rigging in.

21 Q. You said "air mail." I take it there's not a
22 post office on the tower?

23 A. No.

24 Q. So just -- we got to put on the record what you
25 mean.

26 A. Thrown.

1 Q. I gotcha.

2 So if you replaced the C hook every time --
3 let's say you usually replaced the C hook when you
4 replaced the insulator string. How often would the
5 rigging eye be replaced?

6 A. Only if it was, seemed to be elongated, then
7 you would write a tag on that and tower department would
8 come put a new arm tip or put new re-rigging steel out
9 there on the tower itself.

10 MR. FOGG: Do the Grand Jurors have any other
11 questions?

12 Seeing none, (WITNESS #14), we have no further
13 questions for you.

14 Madam Foreperson will have an admonition for
15 you before you leave.

16 THE WITNESS: Okay.

17 GRAND JURY FOREPERSON: (WITNESS #14), you are
18 admonished not to discuss or disclose at any time outside
19 of this jury room the questions that have been asked of
20 you or your answers until authorized by the Grand Jury or
21 the Court. A violation of these instructions on your
22 part may be the basis for a charge against you of
23 contempt of court. This does not preclude you from
24 discussing your legal rights with your own attorney.

25 (WITNESS #14), what I have just said is a
26 warning not to discuss the case with anyone except the

1 Court, your lawyer, or the district attorney. Do you
2 understand?

3 THE WITNESS: Yes.

4 GRAND JURY FOREPERSON: Okay. Thank you for
5 your time.

6 MR. FOGG: Madam Foreperson, we have one
7 witness left, (WITNESS #10), who will be a similar
8 witness to what we just heard from (WITNESS #14). Does
9 the Grand Jury need a break before we continue with
10 (WITNESS #10)?

11 GRAND JURY FOREPERSON: Need a break?

12 We're good.

13 MR. FOGG: Well, Madam Foreperson, the People
14 would call (WITNESS #10) to the stand, please.

15 GRAND JURY FOREPERSON: (WITNESS #10), would
16 you raise your right hand, please.

17

18 (WITNESS #10)

19 having been called as a witness in
20 the matter now pending, having been first
21 duly sworn, testifies as follows:

22

23 THE WITNESS: Yes.

24 GRAND JURY FOREPERSON: Thank you. Have a
25 seat, please.

26

EXAMINATION

BY MR. FOGG

Q. Now, (WITNESS #10), before we begin, I know you're represented by an attorney. If at any point you feel like you need to consult your attorney, please say so and the Grand Jury, at the Grand Jury's discretion, will allow you a reasonable break to do so. Do you understand?

A. Yep.

Q. (WITNESS #10), can you please state your full name and spell your last name, please.

A. (WITNESS #10), (SPELLING REDACTED).

Q. (WITNESS #10), where do you work?

A. PG&E.

Q. How long have you worked for PG&E?

A. Thirty-six years.

Q. And what, what did you do when you first started working for PG&E?

A. I was a second faller. Trimmed trees for new right-of-ways and stuff.

Q. How long, about how long were you a second faller?

A. Little less than six months.

Q. What did you do after that?

A. Became an apprentice lineman.

1 Q. Is that a three-year apprenticeship?

2 A. Yes.

3 Q. During that apprenticeship, did you receive any

4 training in how to inspect transmission lines?

5 A. No. That was no part of that.

6 Q. So after the apprenticeship, what did you do

7 next?

8 A. I became a lineman and --

9 Q. What, were you a lineman working transmission

10 or distribution?

11 A. Little bit of everything.

12 Q. Did that unit you were in have a specific name?

13 A. Yeah, General Construction.

14 Q. And how long were you with General

15 Construction?

16 A. For 19 years.

17 Q. I want to show you now on the -- before I do, I

18 have one other question. We'll finish up your

19 experience, the rest of it in a minute, but while we're

20 on general construction, I wanted to run through a few

21 questions about it.

22 A. Okay.

23 Q. Before we do, what's the cold end attachment

24 point on a 115 steel transmission tower?

25 A. That's where it connects the top bell to the

26 tower itself.

1 Q. So on the screen behind you, (WITNESS #10), is
2 Grand Jury Exhibit 188. Can you tell us what's depicted
3 in that image?

4 A. Yeah. Looks like a jumper string, with a C
5 hook and eye in the steel and jumper going across from
6 the arm from the tower.

7 Q. Is there a cold end attachment point in that
8 image?

9 A. Yeah. It would be the C hook.

10 Q. Okay. And what's the name of the hole in that
11 arm that the C hook is going through?

12 A. Sometimes they call it "rigging eye," sometimes
13 we just call it "attachment point."

14 Q. Okay. So when you were in General
15 Construction, what did the General Construction Unit do?

16 A. We did all the overflow work that the local
17 crews couldn't handle. So we'd travel all over the north
18 part of the state mostly, and once in a while down to the
19 Bay Area every few years to help them down there.

20 Q. Would you do repairs on transmission lines?

21 A. We'd do repairs, we would string new wire in,
22 we would do whatever it took.

23 Q. So when in General Construction did you ever
24 replace an insulator string?

25 A. Oh, yeah.

26 Q. And when you replaced insulator string that was

1 attached by a C hook like in Exhibit 188 --

2 A. Uh-huh.

3 Q. -- what would you do with the C hook?

4 A. Most of the time we threw them away, put new
5 ones in, but sometimes we'd use the old one again because
6 it just, they weren't wore out or anything. We'd just
7 use them again sometimes, depending on how handy the new
8 ones were. If we had some right there with us, we'd put
9 a new one in, but sometimes you just don't have new ones
10 with you that day or forgot to spot one or something, so
11 just use the old ones.

12 Q. Did you ever receive any formal training from
13 PG&E about how to gauge whether or not a C hook could be
14 reused?

15 A. No. We'd just look at them and see if there's
16 any wear or anything on them.

17 Q. Would you be able to estimate for me what
18 percentage of the time you reused the C hook when
19 replacing an insulator string?

20 A. Yeah. Just guessing, 5 percent of the time
21 maybe.

22 Q. Okay.

23 A. Most of the time we had new ones, but once in a
24 great while we'd just use the old one.

25 Q. Five percent of the time you reused the C hook,
26 rest of the time you'd replace a new one?

1 A. Yeah.

2 Q. How about -- I want to turn now to three-bolt
3 connectors. When you were working general construction,
4 did you ever replace three-bolt connectors?

5 A. Yeah, all the time. That's what we used for
6 connectors at that time.

7 Q. On 115 kV line, a steel lattice tower, how long
8 would it take to replace a three-bolt connector?

9 A. It depends on where it is. I mean, sometimes
10 you could reach it right from the tower; other times you
11 had to hang ladders and do different work to get out
12 there to reach the connectors. So the connector itself
13 is just, you know, five minutes.

14 Q. So it would be how long it would take you to
15 get to the connector?

16 A. Yeah. That would be the most of the time. So
17 if you had to hang a ladder and doing all the ropes, you
18 know, would take a half hour or so to get a ladder and
19 get it ready.

20 Q. Standing on the ground below the tower to start
21 the job, all the way to standing on the ground and you're
22 done with the job, how long would it take to replace a
23 three-bolt connector in the best possible situation as
24 fast as you can?

25 A. Depends on how many they were and where they
26 were on the towers and everything. But if you had a

1 double dead end and you had to replace connectors on both
2 sides of the tower and stuff, it could take a couple
3 hours.

4 Q. How about the worst case scenario, where you
5 have to use ropes and the connector is hard to get to,
6 how much longer would it take from beginning to end of
7 that project?

8 A. It could take an extra hour, hour and a half.

9 Q. To change an insulator string like what's
10 depicted in Exhibit 188 or change a three-bolt connector,
11 would you have to climb up the tower to do so?

12 A. Yeah.

13 Q. Did you receive any training for -- let me ask
14 that question differently.

15 When you're up on a tower doing repair work,
16 did you inspect the rest of the tower while you were up
17 there?

18 A. You look at stuff. I mean, you don't want to
19 be walking out on some of the steel and have the bolts
20 missing out of it and stand on it or something. But
21 yeah.

22 Q. Were you trained by PG&E to do any sort of
23 formal inspection while you were doing a repair job on a
24 tower?

25 A. No, it was just a safety inspection for what
26 you were doing. And depending on what you were doing,

1 whether you were unloading or loading a tower, taking
2 wire off or out of it, you'd look at it a little bit more
3 closely to make sure it wasn't going to collapse on you,
4 make sure all the bolts were in it and stuff.

5 Q. If you were on a tower doing a repair job and
6 you saw something that you know was broken, would you
7 report it?

8 A. Well, if we knew it was broken, we'd fix it
9 right there.

10 Q. I want to now move past General Construction.
11 You said you were in the General Construction about 19
12 years?

13 A. Yeah.

14 Q. What did you do in PG&E after you left General
15 Construction?

16 A. I bid into Table Mountain yard there for doing
17 transmission line maintenance.

18 Q. You were a lineman at Table Mountain?

19 A. Yeah.

20 Q. How long were you a lineman at Table Mountain?

21 A. I don't know. It's hard for me to remember. I
22 was running a crew most of the time as soon as I got in
23 there. But yeah, I think I was a lineman probably three
24 or four years maybe before I took the job permanent. I'm
25 just guessing; I don't remember the certain dates.

26 Q. What job did you take after you were a lineman

1 at Table Mountain?

2 A. Took the crew foreman job.

3 Q. After the crew foreman job?

4 A. I went and did some work for a while as a
5 T-man, patrolman.

6 Q. When say a "T-man," you mean troubleman?

7 A. Yeah.

8 Q. That's at Table Mountain?

9 A. Yeah.

10 Q. How long were you a troubleman at Table
11 Mountain?

12 A. Between two and three years.

13 Q. Were there a specific group of lines that you
14 were charged with inspecting or focusing your inspections
15 on?

16 A. Yeah, I worked up north. I had a little office
17 kind of up in Redding, and I did most of the Burney area,
18 up in that area.

19 Q. So that doesn't include Feather River Canyon?

20 A. No.

21 Q. When you became a troubleman, did you receive
22 any new training from PG&E about how to conduct
23 inspections of transmission lines?

24 A. No, not really. Most of what we did was just
25 went off our experience, what we'd been doing our whole
26 career, and what we'd been fixing working there, so we

1 knew what was the actual problem and what wasn't.

2 Q. I want to ask you a couple questions now about
3 air patrols. In real quick summary, what is an air
4 patrol?

5 A. That's out of a helicopter. We inspect the
6 lines from the helicopter.

7 Q. What are you looking for on the lines during an
8 air patrol?

9 A. We're looking for anything that could cause us
10 trouble. It's a pretty quick patrol there. Air patrols
11 are a lot faster than a ground patrol, so you're looking
12 for major items that -- maybe trees hanging over the,
13 that can fall on the line, maybe flashed insulators, and
14 stuff like that. Most of the stuff is going to be pretty
15 obvious if you're -- but that's the best way you can see,
16 on a air patrol, is flashed insulators and stuff because
17 you cannot see that from the ground.

18 Q. Why can't you see a flashed insulator from the
19 ground?

20 A. The top of those insulators -- you can see the
21 top of the glass comes down.

22 Q. You're now pointing at Grand Jury Exhibit 188?

23 A. Yeah. You can see big white marks where
24 lightning or something had hit those bells. And you can
25 only see that from the air. You can't see the top of the
26 insulators from the ground.

1 Q. So you'd commonly see flashed insulators during
2 air patrols?

3 A. Yes.

4 Q. About, about how much time would you be able to
5 spend looking at each tower during an air patrol?

6 A. You're moving along, just guessing, between,
7 anywhere between 20 to 40 miles an hour, and you're just
8 watching the towers as you're going by. You're not
9 stopping at the towers or anything like that.

10 Q. So would you be able to estimate for me
11 approximately how much time you can spend on each tower?

12 A. Yeah. As you're coming up to it, once you've
13 been doing it for quite a while, you can see stuff that
14 doesn't look right real quick. So when you're coming up
15 to a tower, you're watching it, you're looking at all the
16 insulators, then it goes by, and you look at it as you go
17 by it. So you're looking at probably, probably 20, 20
18 seconds or so you're getting the whole look of the whole
19 tower. And then if you see something wrong, then you
20 stop and you hover, you circle around until you can get a
21 structure number, and you get some pictures of what you
22 found that was wrong, and then you go on again.

23 Q. Did you feel like you had enough time to --
24 well, let me ask that question differently.

25 When you were assigned air patrols, did you
26 feel like the company gave you enough time to complete

1 them?

2 A. Yeah. We could fly slower if we wanted to, you
3 know, but that was just how much time with your
4 experience and stuff of looking, how much time you
5 thought it took to get a good look at each tower when
6 you're going by. So, yeah, I never, I was never told
7 that I was flying too slow or nothing like that.

8 Q. So if you had 115 kV line that, let's say it's
9 400 structures, can you give me an estimate how long it
10 would take to do an air patrol of that whole line?

11 A. Like I said, depending on where it was and how
12 fast you could fly, you know, but, you know, 400
13 structures, you could do that in four hours or so, maybe
14 five.

15 Q. During an air patrol, how well could you see a
16 cold end attachment point like the image depicted in
17 Grand Jury Exhibit 188?

18 A. A lot of times you couldn't. Because if you
19 look at that picture, above that C hook you got a flat
20 piece of steel there, and you're up above stuff, so most
21 of the time you can't see the C hooks from an air patrol.
22 And a lot of the towers aren't like they are down here in
23 the valley where you can fly alongside them more and get
24 a sideways picture. You're up there, and then the towers
25 are going down in between trees, and you're straight up
26 above them, so it's a little bit harder to see. So very

1 rarely could you get a real good look at the cold end.

2 Q. And is Grand Jury Exhibit 188 an angle that you
3 would typically get during an aerial inspection?

4 A. No, not at all.

5 Q. Where would the helicopter typically be
6 relative to a transmission tower during an air patrol?

7 A. You'd be up above it. And say if you are
8 looking at the clock, depending on what side of the
9 helicopter you're sitting in, but you'd probably be up at
10 like 10:00 o'clock or 2:00 o'clock above the tower, off
11 to the side just a little bit like that. So you can get
12 a pretty good look at the whole tower as you're going by.

13 Q. Okay. I want to shift gears now and go to
14 ground patrols. Just in real just generic summary, what
15 is a ground -- let me ask that question differently.

16 What's a ground inspection?

17 A. We call that a detail inspections. And we
18 would go to each tower on the ground. And on poles we
19 would, you know, take a good look at them, beat on them
20 with a hammer, make sure they weren't too rotten and
21 stuff. And just take it, take a look at the whole, whole
22 structures. And anywhere we could walk around, check any
23 down guides, making sure they're tight, and making sure
24 they have all the equipment on they're supposed to have.

25 Q. So for a detailed inspection on a -- you
26 mentioned poles there. Is that also true for towers?

1 A. Yes.

2 Q. How much -- what would you be looking for on a
3 transmission tower, on a 115 transmission tower, during a
4 detailed inspection?

5 A. You'd be looking at the steel going up the
6 tower, you know, just like if you're going to go work on
7 it, looking if anything's loose or anything. Be looking
8 at the footings, making sure the footings were all in
9 good shape. Be looking at the conductor, make sure the
10 conductor's in good shape going into the shoes. A lot of
11 stuff we'd see on the detailed patrol would be like the
12 dampers on the line, making sure they were all in good
13 shape. Looking for pins loose on the hot end of the
14 attachment to the bells. And so you could see most of
15 that stuff pretty well from the ground.

16 Q. You just mentioned a dampener or damper?

17 A. Yes.

18 Q. What is that?

19 A. That is a, it's a weight that hangs out just
20 outside the attachment where the conductor attaches to
21 the tower. And it reduces the vibration on the wire that
22 comes into the shoe so that the tower and the hot end
23 hardware doesn't see as much vibration. Because
24 vibration is bad with wire and stuff, and it will wear it
25 out pretty quick. So those dampers, when they get wore
26 out, the weights start to hang down like a 45-degree

1 angle and stuff, so it's time to change them.

2 Q. What would cause that vibration you just
3 described?

4 A. Wind and stuff on the conductor.

5 Q. Back to the detailed inspections, how much time
6 would you spend on average per tower in a detailed
7 inspection?

8 A. On an average, probably four or five minutes is
9 all probably.

10 Q. Did you feel like the company gave you enough
11 time to complete the detailed inspection?

12 A. Yeah, I think so. I mean, I never, I never --
13 all those patrols have times on them for how many man
14 hours that that patrol should take and stuff, but I never
15 really worried about that much, I just did what I thought
16 was the good patrol and they were just going to have to
17 live with it at that point. I always thought that if you
18 wanted to get a good idea how long a patrol was supposed
19 to take, you could take the last four or five times I
20 patrolled that line and just see how much time it took
21 and then divide it, and you'd have an accurate depiction
22 on how much time that patrol takes, which I always
23 thought would be a better way to do it than just giving
24 you a certain amount of time per structure, because you
25 don't know how long it takes to get to -- some structures
26 it takes two hours to walk to.

1 Q. And is that a function of the lines up in the
2 mountains as opposed to being in the valley?

3 A. Yeah.

4 Q. How long would it take -- well, I'll ask you to
5 give an estimate. About how long would it take to do a
6 detailed inspection of 115 kV line of steel lattice
7 towers that had about 400 structures, and as I'm --
8 mountainous terrain?

9 A. It could take as much as a month.

10 Q. What's the difference in what you're -- well,
11 comparing an air patrol to a detailed inspection, how do
12 they differ in what you're looking for during the patrol
13 or the inspection?

14 A. When you're doing a detail patrol, or a ground
15 patrol, you're looking at a lot more stuff. If you're
16 doing an air patrol, you're looking at major stuff that's
17 going to cause us a problem pretty quick. On a detailed
18 patrol, you can spend more time walking around a
19 structure and really looking for stuff that would cause
20 us a problem instead of just looking for quick stuff.

21 Q. Did you ever climb a structure during a
22 detailed inspection?

23 A. Yeah, I have. If I seen something like a
24 bird's nest or something and I thought might have been a
25 problem, or if I saw something on an insulator I didn't
26 like, I've climbed it.

1 Q. What do you mean when you said something on an
2 insulator you don't like, what do you mean by that?

3 A. Well, sometimes you can see the edge of an
4 insulator from the ground, if you can get up on the side
5 hill a little bit, and might have a big white mark on it,
6 you're not sure if it's a flash from lightning or if it's
7 just bird dirt. So a lot of times it's better you just
8 run up there, take a quick look at it, and make sure
9 before you write a tag and send a crew out there to
10 change a bell that's bird dirt. So that's a little
11 embarrassing.

12 Q. So I wanted to go back to Grand Jury Exhibit
13 188 now. Just to use 188 as a reference, how well could
14 you check a cold end attachment point, like what's in the
15 188, during a detailed inspection?

16 A. Not very well. Not unless you could get right
17 at the right angle and could see it. Because if you were
18 right below that, the insulator would be in the way. So
19 you can get off to the side sometimes and see that, but
20 you know, not great.

21 Q. Did you ever receive any formal training -- no,
22 let me ask that question differently.

23 Did anyone in the company ever tell you to
24 specifically look at cold end attachment points during
25 detailed inspections?

26 A. Not that I remember.

1 Q. Hypothetically, if you were told to look at a
2 cold end attachment point during a detailed inspection,
3 would you have been able to, generally, without climbing
4 the tower?

5 A. Probably not.

6 Q. Why not?

7 A. Just because the angle you'd have to get at to
8 see it, depending on where it was and how the bells would
9 be in the way. I mean, like you'd see -- if this tower
10 here was on a side hill, you could walk up that side hill
11 and get almost straight across from it and see it. But
12 if you're out in the flats or something like that, you're
13 not going to be able to see it.

14 Q. So if you, if you had to see the cold end
15 attachment point, let's assume you're told you have to do
16 that, what kind of inspection would you need to do?

17 A. Probably have to do a climbing inspection if
18 you're going to look at all the cold end hardware.

19

20 (Exhibit 38 was marked for identification.)

21

22 Q. I want to shift now to Grand Jury Exhibit 38.

23 Now, (WITNESS #10), Grand Jury 38 is on the
24 board behind you. Can you tell me what's in that image?

25 A. Yeah, looks like someone's put an extra rigging
26 eye up there for I don't know.

1 Q. In your experience in PG&E, how often would you
2 see an extra rigging eye added to the arm of a tower like
3 that?

4 A. Never.

5 Q. (WITNESS #10), do you know how old the
6 Caribou-Palermo line is?

7 A. Not exactly. I know it's close to a hundred
8 years.

9 Q. How do you know it's close to a hundred years?

10 A. Because of, I knew where it went to. That line
11 actually went all the way to the Bay Area at one time.

12 Q. How would the age of the -- would the age of
13 the line affect how you would climb the towers and the
14 line to do repairs?

15 A. Yeah. Those towers are pretty old, so they
16 don't have a lot of the safe working factor on them like
17 our new towers do. So we had to watch when we climbed
18 them and how we rigged on them and stuff, so we didn't
19 add extra weight to them, because just the conductor
20 weight alone on them was pretty much at their weight
21 limit.

22 Q. When you say "these towers," are you referring
23 to the Caribou-Palermo line?

24 A. Correct.

25 Q. All right. (WITNESS #10), I want to go back to
26 Grand Jury Exhibit 188 one last time. Now, see it on the

1 screen behind you? The cold end attachment point that
2 I've highlighted from that image, can you tell us
3 anything about whether or not the C hook or the rigging
4 eye might be worn?

5 A. Yeah, now that we know about it, you might be
6 able to see this more, but --

7 Q. But just from the picture, looking at just this
8 image?

9 A. No, the holes are different sizes on the
10 towers and stuff, so even though you can see light
11 through, that doesn't necessarily mean that it's really
12 wore.

13 Q. Did you -- have you ever received any training
14 from PG&E about what the diameter of those rigging eyes
15 should be on a transmission tower?

16 A. No.

17 Q. But the rigging eyes should all be round;
18 right?

19 A. Yeah.

20 Q. But you're telling me also that different
21 towers could have different sized eyes?

22 A. Right.

23 Q. How about the C hooks, are the C hooks all
24 about the same size?

25 A. Yeah.

26 Q. So I want to jump now to Grand Jury Exhibit 19

1 -- 191. Can you tell me what's depicted in Grand Jury
2 Exhibit 191?

3 A. Yeah, that, that C hook is definitely worn
4 pretty good. Or the tower. I can't really tell which
5 one it is.

6 Q. Why do you say that the C hook or tower
7 depicted in Grand Jury Exhibit 191 is worn?

8 A. Because you can see the diameter of the hole
9 is, isn't really round anymore.

10 Q. To get a vantage point like what's depicted in
11 this image, what would you need, what type of inspection
12 would you need to do?

13 A. You'd have to be on the tower or a drone or
14 something where you can see it.

15 Q. But you're not going to get this image of a
16 ground inspection or helicopter inspection?

17 A. No.

18 Q. I want to end now, or at least my questioning,
19 (WITNESS #10), on Grand Jury Exhibit 178. Can you tell
20 us what's in this, this image?

21 A. Yeah, it's a C hook with a wear mark right in
22 the center of the hook.

23 Q. In your time at PG&E, had you ever seen a C
24 hook with that type of wear?

25 A. No.

26 Q. If you saw a C hook, if you encountered a C

1 hook like this with that kind of wear during your work,
2 what would you do with it?

3 A. Not only ought to change it out, but I would
4 get in touch with some of the engineers and stuff and
5 have them check the other towers that were like this and
6 see if there was something messed up.

7 Q. (WITNESS #10), now I'll need a moment to check
8 with my colleagues, if they have any questions, then I'll
9 ask the Grand Jurors if they have any questions.

10 MR. NOEL: I've got a few things. If I could
11 have just a second, I'm trying to find one thing in
12 particular.

13 MR. FOGG: Do any of the Grand -- while
14 Mr. Noel is taking a look at the document, do any of the
15 Grand Jurors have questions for (WITNESS #10)?

16 Madam Foreperson, may we approach?

17 (Counsel and Madam Foreperson confer.)

18 Q. (By MR. FOGG) All right. (WITNESS #10), I
19 apologize for the delay.

20 A. No problem.

21 Q. The Grand Jurors did point out to me that I
22 missed a topic. I know they're on top of it. Before I
23 get to this other topic, I have a clean-up question,
24 something I already asked you about.

25 Why would a transmission tower have, why would
26 they have different sized rigging eyes if the C hooks are

1 all a pre-uniformed size?

2 A. I don't know. Some of the, some of the towers
3 have different attachment points. Some of them don't use
4 C hooks. Some of them use like a Y ball. You can get
5 away with a little bit smaller hole with a Y ball,
6 because it has a pin that slides through the hole in the
7 tower instead of just that hook. I have just seen
8 different sizes on different towers. It could be
9 manufactures who manufacture the towers put different
10 sizes in them. I don't know the whole reason.

11 Q. Okay. Where were you working in 2012?

12 A. 2012, I was in Table Mountain.

13 Q. Do you recall around the end of 2012 or 2013
14 any towers falling down because of a landslide?

15 A. I don't remember for sure. I know somewhere
16 around that time some towers on the Caribou-Palermo fell,
17 but I wasn't really on that job. I think we were, we
18 were working something else at the time and some of the
19 GC crews went and handled it. So I wasn't really
20 involved in it too much.

21 Q. So I want to show you what has been marked
22 Grand Jury Exhibit 226. We'll start at the top and work
23 our way through this real quick.

24 What's a Transmission Line Object List?

25 A. That's what we take on our patrol and we mark,
26 mark those at each location we come to whether we found

1 no problems or --

2 Q. Okay. And now you see the name in the upper
3 right corner is (WITNESS #14). Are you (WITNESS #14)?

4 A. No.

5 Q. But do you recognize this type of form even if
6 you don't recognize this exact footage?

7 A. Oh, yeah.

8 Q. I want to take just an example of a couple and
9 ask you a hypothetical question.

10 So if we're, just for the sake of this whole
11 context here, we see one -- I'm looking at page -- sorry
12 -- page 49 of Exhibit 226. It says, one row says 25,
13 slash, 210. What does that mean?

14 A. That is the structure number; 25 miles out from
15 the, from the feed and 210th tower.

16 Q. Then below it says 25/211, what does that mean?

17 A. That's the next tower.

18 Q. So is it fair to say that each column in this
19 sheet -- I'm sorry -- each row in this sheet represents a
20 different steel tower?

21 A. Correct.

22 Q. So I'll ask you a hypothetical. Let's say
23 tower 210 and 211 fell down and are replaced by, let's
24 say, four wooden poles. They're there temporarily. If
25 you then did an air inspection of those wooden poles,
26 would you, would you expect the object list to reflect

1 that there are temporary wooden poles there now instead
2 of steel towers?

3 A. Yeah, I would think so. I would have done it
4 on my patrol. I would have made remarks.

5 Q. One second, (WITNESS #14). I think I called
6 you (WITNESS #14). (WITNESS #10). I apologize.

7 A. That's okay. I know who I am.

8 Q. Apparently I don't, so I apologize.

9 So let's say you were doing an air inspection
10 -- air patrol, I apologize, and you came to -- tower 210
11 here is not there anymore, it's two wooden poles. How
12 would you reflect -- well, would you use the object line
13 list to reflect that to note that the tower wasn't there
14 and there are wood poles instead?

15 A. Yeah, I would put that in the notes.

16 Q. So, (WITNESS #10), not (WITNESS #14), I don't
17 have any further questions for you.

18 Do any of the Grand Jurors have other
19 questions?

20 Appears not.

21 Mr. Noel, do you have any questions?

22 MR. NOEL: Yes, really quickly.

23

24 EXAMINATION

25

26 BY MR. NOEL

1 Q. Going back to the hypothetical Mr. Fogg asked
2 you, if five towers disappeared and were replaced by 15
3 wooden poles, would you document that on your
4 transmission object list?

5 A. Yeah.

6 Q. Would you document that on your data, your
7 inspection data sheet?

8 A. I don't know since it was temporary. I
9 probably would. I might go talk to my supervisor and see
10 how he wanted me to put it on there.

11 Q. Would you ask him, "Why are these structures
12 that are no longer there still listed on here?"

13 A. No, we got that stuff from the clerk's all the
14 time, and it was out of date and stuff was different.
15 And we'd try to, try to fix it and give it back to them,
16 because even stuff that wasn't temporary sometimes in
17 those patrols it was wrong, had wrong numbers on it or
18 whatever. So we'd get with the clerk and say, "Hey, this
19 is wrong on this patrol, this needs to be fixed." And
20 sometimes it would, sometimes it wouldn't next time we
21 had a patrol. So --

22 Q. How about, for instance, the priors or the open
23 notifications on a line, the fact that those are still
24 showing up as open notifications and towers are gone,
25 does that happen?

26 A. If it had open notifications and the towers

1 were gone, I don't know. Maybe. But --

2 Q. Well, if you had open notifications such as
3 replace connectors on a tower that fell down --

4 A. Tower wasn't there, or not there?

5 Q. Yeah.

6 A. I don't know. It depends on what we, how we
7 get our stuff back sometimes.

8 Q. What are frog plates?

9 A. Those are -- we call the frog plates the plates
10 with the holes in them.

11 Q. So, for instance --

12 A. We do. Tower department calls frog plates
13 something completely different. So --

14 Q. So, for instance, Mr. Fogg had showed you a
15 photograph, and I don't know if I still have that up. I
16 think it was -- 39 I think is what it is. It's off of --
17 yep.

18 Is that a frog plate?

19 A. That's not what we really call the frog plate,
20 but -- that's just a repair, so.

21 Q. Okay. What would you consider a frog plate?

22 A. On the towers, on some of the towers we did
23 they have a plate that slides in between the arm where
24 the arm comes out and connects. And it just has a plate
25 there that has the hole through for the cold attachment.

26 Q. Somewhat of a different configuration?

1 A. Correct.

2 Q. You wouldn't see that on the jumper arms on a
3 transposition tower like this?

4 A. No, not usually.

5 Q. Okay. I need to come around, hook this up real
6 quick because I want to show you a picture. And I will
7 get this marked as next in order.

8 The picture up there, that will be marked as
9 the exhibit next in order.

10 Do you recognize that picture?

11 A. As a, as one of our towers, or that picture
12 itself?

13 Q. That picture itself.

14 A. I'm not sure.

15 Q. When you do work on towers, do you take
16 pictures to -- of your work?

17 A. Yeah. A lot of times.

18 Q. So if you did a Corrective Work Form to fix
19 something on a tower, would it be normal for you to take
20 a picture of it?

21 A. Now it is. But it wasn't before. We never
22 took pictures of the completed work. We had pictures of
23 the problems and stuff, but not of the completed work.

24 Q. Okay. Do you see any problems in this picture?

25 A. I can't really tell from that picture.

26 Q. Okay. And, by the way, this is Bates stamp

1 number PG&E Camp BC0000024261. Let's go up. That's a
2 Corrective Work Form; correct?

3 A. Yeah.

4 Q. And is that your name on it?

5 A. Yep.

6 Q. And that's for 35/281 on the Caribou-Palermo
7 line; correct?

8 A. Yep.

9 Q. And so that's a picture of 35/281?

10 A. That's the before?

11 Q. Yes. Well, I'm asking you I guess is what I'm
12 asking. Do you see an issue on that?

13 A. No, I can't tell.

14 Q. Okay. It's not going to let me do it. There
15 it is. Awful lot of space in that hole, isn't there?

16 A. Yeah, maybe. Depends on how big the hole was
17 before.

18 Q. Well, do you know what the designed diameter of
19 those holes were on the Caribou-Palermo?

20 A. No.

21 Q. Do you know what the design metrics of the
22 hooks are?

23 A. No.

24 Q. Have you replaced hooks on the Caribou-Palermo,
25 suspension hooks?

26 A. Yeah.

1 Q. Do you know how they fit when you put in a new
2 hook into an unworn hole?

3 A. Pretty much, yeah.

4 Q. Is there that much space, that much daylight
5 showing?

6 A. I don't know.

7 Q. This is a --

8 A. Not usually.

9 Q. This is a photograph that you or your crew
10 would have taken from the ground under 35/281; correct?

11 A. Yeah.

12 MR. NOEL: Okay. Do you want to pull up that
13 188? 188.

14 Q. (By MR. NOEL) Now we're back to 188, that
15 you've been looking at before.

16 Do you know what tower that is?

17 A. Nope.

18 Q. Would it surprise you if I told you that that's
19 35/281?

20 A. Nope.

21 Q. That's basically the view you just -- the view
22 you've just been looking at from your report was taken
23 from the ground, and very clearly shows that space;
24 correct?

25 A. Yep.

26 Q. So you can see on a lot of these towers that

1 space?

2 A. Yeah, maybe.

3 Q. Well, your crew took that photograph, it's
4 attached to your Corrective Work Form; correct?

5 A. Yep.

6 Q. That was taken from the ground, and it very
7 clearly shows that same distance.

8 That's all I have.

9 MR. FOGG: Okay. Now before -- (WITNESS #10),
10 I've got to let you go eventually.

11 Do the Grand Jurors have any other questions?

12 Seeing none, we have no further questions for
13 you, (WITNESS #10). Thank you for your time. Before you
14 leave, Madam Foreperson will have an admonition for you.

15 THE WITNESS: Okay.

16 GRAND JURY FOREPERSON: (WITNESS #10), you are
17 admonished not to discuss or disclose at any time outside
18 of this jury room the questions that have been asked of
19 you or your answers until authorized by the Grand Jury or
20 the Court. A violation of these instructions on your
21 part may be the basis for a charge against you of
22 contempt of court. This does not preclude you from
23 discussing your legal rights with your own attorney.

24 (WITNESS #10), what I have just said is a
25 warning not to discuss this case with anyone except the
26 Court, your lawyer, or the district attorney. Do you

1 understand?

2 THE WITNESS: Yep.

3 GRAND JURY FOREPERSON: Okay. Thank you for
4 your time.

5 MR. FOGG: Thank you, (WITNESS #10).

6 [DISCUSSION OMITTED.]

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COURT REPORTER'S CERTIFICATE


This is to certify that I, JENNIFER L. HUNT, CSR, a Certified Shorthand Reporter of the State of California, was present at the time and place the foregoing proceedings were had and taken in the within matter; that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings and afterwards caused my said shorthand writing to be transcribed into typewriting. Further, pursuant to CCP237 all reference to jurors by name has been redacted.

The foregoing pages beginning at:

1 through 204

are certified to be a complete transcription of said stenographic shorthand notes.

DATED: THIS 6TH day of JUNE 2022



JENNIFER L. HUNT, CSR 10735
OFFICIAL REPORTER

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IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

REDACTED

BCSC-2019-GJ-01

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, JULY 16, 2019

VOLUME 12

OROVILLE, BUTTE COUNTY, CALIFORNIA

LISA MCDERMID WELCH, CSR 10928, OFFICIAL COURT REPORTER

SEALED PURSUANT TO PENAL CODE 938.1 (b)

1 APPEARANCES:

2
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1 OROVILLE, BUTTE COUNTY, CALIFORNIA

2 JULY 16, 2019; 8:40 a.m.

3 (Confidential Grand Jury Hearing Proceedings)

4
5 (PROCEEDINGS OMITTED.)

6
7 [Whereupon proceedings are returned
8 back to Courtroom 9 before the
9 grand jury at 9:30 a.m.]

10
11 (ROLLCALL OMITTED.)

12
13 MR. FOGG: Good morning. Deputy Attorney
14 General Nicholas Fogg for the People and Deputy District
15 Attorney Mark Noel.

16 Mark, you ready?

17 MR. NOEL: Yes.

18 Ready for (WITNESS #11)?

19 GRAND JURY FOREPERSON: We're ready.

20 [(WITNESS #11) enters the courtroom.]

21 GRAND JURY FOREPERSON: (WITNESS #11), raise
22 your right hand to be sworn, please.

23 Do you solemnly swear that the evidence you
24 shall give in this matter pending before the grand jury
25 shall be the truth, the whole truth, and nothing but the
26 truth so help you God?

1 THE WITNESS: I do.

2 GRAND JURY FOREPERSON: Thank you. Have a seat.

3 **EXAMINATION**

4 BY MR. NOEL:

5 Q. For the record, can you state your full name and
6 spell your last name.

7 A. Yes. (WITNESS #11), [Redacted spelling.]

8 Q. Welcome back, (WITNESS #11).

9 Just to review, you testified before that you
10 were a PG&E troubleman for quite a few years; correct?

11 A. Yes.

12 Q. And we didn't have at the time but now we have
13 what is in front of you Exhibit Number 258. You see
14 Exhibit 258?

15 A. Uh-huh.

16 Q. You recognize Exhibit 258?

17 A. Yes, as best I can from 2006.

18 Q. And what is Exhibit 258?

19 A. A patrol that I had performed in 2006.

20 Q. Patrol on what?

21 A. On the Caribou-Palermo.

22 Q. The Caribou-Palermo 115 kV line?

23 A. Yes. Yes, Sir.

24 Q. And what type of patrol did you do?

25 A. An aerial.

26 Q. So you're flying in a helicopter?

1 A. Yes, Sir.

2 Q. Now, this is a report that you did in the
3 regular course of your employment with PG&E?

4 Remember, you have to answer out loud.

5 A. Yes. Sorry, Guys. Out of my element.

6 Q. I can see you shaking your head and they can see
7 you shaking your head, but she (indicating) can't write
8 that down.

9 A. Yes.

10 Q. So, yes, you prepared this report in the regular
11 course of your employment with PG&E?

12 A. Yes, Sir.

13 Q. And did you make this report or author this
14 report at or near the time of which the events occurred?

15 A. Yes.

16 Q. Can you kind of explain to us again just as a
17 brief reminder for us on how you actually prepared the
18 report.

19 A. We have certain lines. And this is probably one
20 of the first lines that I did as a troubleman in 2006.
21 Just a guess. But we have certain lines that need to be
22 completed at certain times of the year; routine patrols.
23 This is an actual routine patrol of the Caribou-Palermo.
24 Air, not a detail or a non-routine. This here is a
25 routine air patrol.

26 Q. Okay. How do you actually make your report?

1 A. On an air patrol you're flying the line, a lot
2 of the line. So before you fly the line, you look at
3 what I call priors which is stuff that was already
4 written up by myself or another troubleman. So I prepare
5 myself to look at those and to inspect the line by air
6 and complete the document when completed.

7 Q. Okay. Now, I guess where I'm trying to go with
8 this is when you say "complete the document," how do you
9 note or how do you notate or record your inspection?

10 A. When I do -- or when I did my air patrols, I
11 actually had a notepad and on that notepad I had the
12 priors written down and then I had a camera, binoculars,
13 and my notepad. And I would fly the line.

14 If I found something that was a defect, a broken
15 insulator, piece of steel hanging or anything, I would
16 take a picture, get a structure number, write all that
17 information down and then get back and fill this out.
18 Because this is too cumbersome to have in the helicopter
19 to try and follow something this small to do an air
20 patrol.

21 Q. And "this" being 258?

22 A. Yes.

23 Q. And 258 is almost 100 pages long; correct?

24 A. Yes, yes.

25 Q. So you make notes as you're going through the --
26 through your inspection?

1 A. Uh-huh.

2 Q. And then when you get done with it, you get back
3 to the office and you fill out your paperwork?

4 A. Yes. That's how I did my air patrols.

5 Q. And the paperwork that you fill out is what
6 we're looking at as 258?

7 A. Yes, Sir.

8 Q. All right. And that's done -- that is something
9 that is kept by PG&E in the normal course of business?

10 A. Yes.

11 Q. Something that's required to be kept; correct?

12 A. Yes.

13 Q. All right. Now, other than that, I want you to
14 flip to -- I believe it's page 2 of 258, the transmission
15 line inspection data sheet.

16 A. Yes.

17 Q. Do you see that? Is that your handwriting on
18 there?

19 A. Yes, it is.

20 Q. The name "(WITNESS #11)" on the top line?

21 A. Yep.

22 Q. Date completed 8/22/06?

23 A. Uh-huh.

24 Q. Miles inspected?

25 A. Uh-huh.

26 Q. How many miles did you inspect?

1 A. Sixty-two.

2 Q. Now, the question is structures inspected? How
3 many structures did you inspect?

4 A. This particular document back then is actually
5 double, but you're actually only flying the four hundred
6 and whatever and a half.

7 Q. Right.

8 A. The reason is if you look at the page --

9 Q. Okay. Let's -- first, let's lay the foundation
10 for it.

11 A. Okay.

12 Q. What is the number of structures that it says
13 you inspected on this -- on this patrol?

14 A. Eight hundred and seventy-four.

15 Q. Okay. That's significantly more than, for
16 instance, in the other inspections that you did and
17 listed; correct?

18 A. Yes.

19 Q. Do you know why that number of structures is
20 significantly higher than it is in other inspections?

21 A. Yeah. If you look at the following page.

22 Q. I didn't put up the following page. If you can
23 explain it.

24 A. This actually has ought over one ceramic
25 insulators, ought over one lattice steel tower. The
26 ceramic insulators on a tower actually has a separate SAP

1 number, a separate number than the steel tower itself.
2 So at a point in time they changed it to where you just
3 had ought over one and the ceramic insulators were tied
4 in with the steel structure.

5 Q. And you're looking at the transmission object
6 list; correct?

7 A. Yes.

8 Q. So that's breaking every tower into two
9 components; correct?

10 A. Exactly right.

11 Q. Structures and insulators?

12 A. Exactly.

13 Q. At some point, PG&E was doing that?

14 A. Yeah. And to be honest, this is so long ago.
15 But to be honest, I think it's still -- I think it's
16 still a separate SAP number in the system but not on the
17 patrol.

18 Q. Like I say, it's a long time ago; right?

19 A. Yeah, yeah.

20 Q. There have been a lot of changes?

21 A. Absolutely.

22 Q. I'm sure in your time as a troubleman with PG&E
23 you've seen lots of changes in the way inspections are
24 done?

25 A. Yes, some. But the way I tried to perform an
26 inspection using my expertise as a lineman, becoming a

1 troubleman and patrolman, I changed a few things. But
2 for me myself when I patrol, I patrol.

3 MR. NOEL: Okay. All right. That's all I have
4 for this witness.

5 And do the jurors have any questions for this
6 witness? Seeing no hands we'll admonish (WITNESS #11)
7 again. And we're done with (WITNESS #11) for the day. I
8 appreciate it.

9 THE WITNESS: Thank you, Guys.

10 GRAND JURY FOREPERSON: (WITNESS #11), you are
11 admonished not to discuss or disclose at any time outside
12 of this jury room the questions that have been asked of
13 you or your answers until authorized by the grand jury or
14 the Court. A violation of these instructions on your
15 part may be the basis for the charge against you of
16 contempt of court. This does not preclude you from
17 discussing your legal rights with your own attorney.

18 (WITNESS #11), what I have just said is a
19 warning not to discuss this case with anyone except the
20 Court, your lawyer, or the district attorney.

21 THE WITNESS: Okay.

22 GRAND JURY FOREPERSON: Thank you.

23 THE WITNESS: Thanks again, Guys.

24 MR. NOEL: Thank you.

25 [(WITNESS #11) exits as (WITNESS #6)
26 enters the courtroom.]

1 MR. NOEL: (WITNESS #6).

2 GRAND JURY FOREPERSON: (WITNESS #6), before you
3 have a seat, raise your right hand to be sworn.

4 (WITNESS #6), do you solemnly swear that the
5 evidence you shall give in the matter pending before the
6 grand jury shall be the truth, the whole truth, and
7 nothing but the truth so help you God?

8 THE WITNESS: Yes.

9 GRAND JURY FOREPERSON: Thank you. Have a seat,
10 please.

11 **EXAMINATION**

12 BY MR. NOEL:

13 Q. (WITNESS #6), can you please state your full
14 name spelling your last name for the record.

15 A. My name is (WITNESS #6). Last name is [Redacted
16 spelling.]

17 Q. Before we get to it, (WITNESS #6), you are
18 represented by an attorney?

19 A. Yes.

20 Q. Is that correct?

21 And prior to your testimony, you indicated that
22 it's your intention on the advice of counsel to invoke
23 your Fifth Amendment rights; correct?

24 A. Yes.

25 Q. So first thing this morning we met with
26 Judge Deems and you were given immunity; correct?

1 A. Yes.

2 Q. You understand that?

3 A. Yes.

4 Q. Okay. Do you understand that the main condition
5 of the immunity is that you just tell the truth?

6 A. Yes, Sir.

7 MR. NOEL: Madam Foreperson, once the order is
8 processed by the clerk -- oh, there it is. It's already
9 here. You should already have it.

10 We'll lodge that with -- the original should be
11 lodged in the grand jury file.

12 GRAND JURY FOREPERSON: Do you have it?

13 GRAND JURY SECRETARY: No.

14 MR. NOEL: Do we have the original?

15 MR. FOGG: No. Only copies.

16 MR. NOEL: We'll figure that out. Ms. Dionne
17 was supposed to give you the original. Okay. So we'll
18 figure it out at the break.

19 BY MR. NOEL:

20 Q. Mr. (WITNESS #6), by whom are you employed?

21 A. Pacific Gas & Electric.

22 Q. In what capacity?

23 A. I'm a transmission troubleman.

24 Q. How long have you been employed by Pacific Gas &
25 Electric?

26 A. A little over 18 years.

1 Q. Walk us through your career with Pacific Gas &
2 Electric where you started and how you ended up as a
3 troubleman?

4 A. Okay. I hired on in April of 2001 in Cupertino
5 down in the Bay Area as an apprentice lineman. And I
6 worked in Cupertino as an apprentice lineman until 2003,
7 got a transfer to Marysville in September of 2003. I
8 finished my apprenticeship, topped out as a lineman in
9 October of 2004 and worked in Marysville as a lineman
10 until May, I believe, of 2012.

11 I took a transfer to Oroville, worked in
12 Oroville for, oh, until September of 2012 and transferred
13 back to Marysville as a lineman. Worked in Marysville as
14 a lineman until June of 2014 when I took a compliance
15 inspector job back in Oroville. That compliance
16 inspector job is -- you still perform your duties as a
17 lineman. You work with the crew when they need extra
18 help, but you also patrol a distribution line.

19 Q. Go ahead.

20 A. Okay. Held the compliance inspector position
21 until November of 2015 which is when I took the
22 transmission troubleman job at Table Mountain. Was a
23 transmission troubleman at Table Mountain. The first six
24 or seven months I worked with the crew basically learning
25 the service territory, learning the lines. That sort of
26 thing.

1 In October of 2017 I took a lineman bid at Table
2 Mountain and worked that job until -- oh, I think until
3 probably May or June of 2018 and then I went back to the
4 troubleman job. And I have been at that troubleman
5 position since then.

6 Q. So May or June of '18?

7 A. Yes.

8 Q. You have been a troubleman?

9 A. Yes.

10 Q. Okay. So when you were a lineman prior to --

11 Were you a transmission lineman or distribution
12 lineman?

13 A. I was a distribution lineman.

14 Q. Okay. So prior to becoming a transmission
15 troubleman in November of '15, what experiences did you
16 have with transmission lines?

17 A. I had -- I had some experience during my
18 apprenticeship on re-conductors and re-insulating down in
19 the Watsonville/Moss Landing area. And as a lineman in
20 Marysville we used to maintain some of the 60 kV lines in
21 the area. But other than that, I had limited
22 transmission experience.

23 Q. So when you became a transmission troubleman,
24 what kind of training did you receive?

25 A. The first six months, like I said, I worked with
26 the crew. So basically that -- you learn basically the

1 area because it's a very large area. And then in the
2 spring of 2016 you get -- I started -- I went to like a
3 substation switching course, which is a two-week course
4 where you learn all those switches inside the
5 substations. I went to a two-day -- a field switching
6 course which is operating the switches just out in the
7 field along the roadways and that sort of thing, not
8 inside the confines of a substation.

9 You receive, oh, your tower climbing training,
10 which we used to climb towers with no fall restraint.
11 You free-climbed it until you got to where you're going
12 to work and then you belted off. Now the new rules are
13 you have to be attached to the tower at all times. So
14 that requires some new training.

15 Helicopter long-line training. A lot of the
16 structures are pretty remote and hard to get to. We use
17 helicopters to transport personnel and material.

18 I received ETM Manual training which
19 basically -- it just gives you some guidelines on what
20 you're looking for out in the field as a troubleman and
21 kind of how you would classify those issues, which is how
22 long you feel before repairs need to be made on that.

23 Q. When you say "ETM," is that the same as the
24 ETPM; the Electric Transmission Preventative Maintenance
25 Manual?

26 A. Yeah.

1 Q. Did you receive any actual training in the
2 hardware of the towers themselves? The transmission
3 towers themselves?

4 A. During the training, they do have some images of
5 some towers with issues. It's mostly Bay Area stuff with
6 the corrosion down there, steel that had rusted through
7 and stuff like that.

8 Q. Which training are we talking about here?

9 A. The Electric Transmission Preventive
10 Maintenance.

11 Q. Okay. So when you went to training on the ETPM,
12 you said they used photographs demonstrating issues in
13 towers?

14 A. Yes. Towers and wood poles.

15 Q. Okay. How about the actual structures that you
16 were going to be inspecting here out of Table Mountain?

17 A. I'm not quite sure. Are you asking if my
18 training had specifically anything to do with, like, the
19 actual towers like in the canyon?

20 Q. Yes.

21 A. Not specifically.

22 Q. Well, we'll get to that in a second.

23 Good thing you have in front of you that binder
24 that is marked on the inside as number 248. Open that
25 binder up. And see the exhibit tag there 248?

26 A. Yes.

1 Q. Do you recognize what's marked as Exhibit 248?

2 A. Yes.

3 Q. What is Exhibit 248?

4 A. It is the Electric Transmission Preventative
5 Maintenance Manual.

6 Q. And is this the training that you said you went
7 to?

8 A. Yes. As I remember it, yes, it is.

9 Q. And are you familiar with the Electric
10 Transmission Preventative Maintenance Manual?

11 A. I -- I haven't looked at it too much since my
12 training.

13 Q. Okay. So this isn't something that you use on a
14 regular basis?

15 A. No.

16 Q. I want to go through a few things in it. And,
17 for instance, Table 1.4. Do you see Table 1.4?

18 A. Yes.

19 Q. Are you familiar with Table 1.4?

20 A. No, I am not.

21 Q. Okay. So this is entitled "Inspection Best View
22 Position." Or actually, it's Table 2 in section 1.4.
23 We're saying that wrong. Correct?

24 A. Yes.

25 Q. And that is "Inspection Best View Position." So
26 this isn't something that you're familiar with?

1 A. No, it's not.

2 Q. How about section 1.6? See 1.6?

3 A. Yes.

4 Q. Are you familiar with section 1.6?

5 A. I'm familiar with -- well, I'm familiar with
6 completing the inspections but not familiar with this
7 section, no.

8 Q. Okay. Are you familiar with the documents --
9 the records that are in blue on that page?

10 A. I am -- I am familiar with the data sheet and
11 the object list, yes. I am not familiar with creating or
12 closing inspections.

13 Q. Okay. So the data sheet and the object list are
14 forms that you routinely use in doing your inspections?

15 A. Yes.

16 Q. All right. Let's move on to Table 13. It
17 should be section 2.1.

18 A. Okay.

19 Q. Are you familiar with Table 13?

20 A. I am familiar with the dates, the timeline with
21 the inspections, but I am not familiar with this table
22 itself.

23 Q. Okay. What is your understanding of the
24 timelines for inspections?

25 A. The wood -- the wood pole lines we do a ground
26 inspection every other year and an air inspection every

1 other year. The steel lines we inspect every five years
2 and do an air patrol on those annually. The 500 kV lines
3 we do quarterly air patrols on those and a ground
4 inspection every three years.

5 Q. What is the difference between an air patrol and
6 an inspection?

7 A. An inspection you're looking for a ground
8 inspection. You're looking for basically everything.
9 You're -- it's a very fine detailed inspection where, you
10 know, on a wood pole you're going to hammer test it,
11 you're going to look for any woodpecker damage, any shell
12 rot type stuff using, you know, using binoculars and
13 really inspecting everything looking for small details
14 like numbering, the structure number, high voltage signs.
15 That sort of thing.

16 And also looking for the bigger issues as well,
17 of course; flash insulators, damaged conductors, the
18 presence of dampers. It's like more of a fine tooth comb
19 type of inspection.

20 An air patrol is more of looking for glaring
21 issues, something, you know, obviously broken, damaged.
22 That sort of thing. Usually on a ground patrol you
23 can -- obviously you spend a little bit more time on each
24 location. And you can -- you can easily -- you can more
25 easily position yourself to get a good view of the
26 structure and all the facilities on it.

1 Q. Okay. You talked about doing the detailed
2 ground inspection for wooden poles. Describe for us what
3 it's like for a steel tower.

4 A. Oh, okay, yeah. So as I'm approaching the tower
5 on a ground patrol, I'm looking basically just getting an
6 overall picture of the tower, looking for things that are
7 obvious; a piece of steel hanging down, the presence of
8 high voltage signs, maybe a tower number, vibration
9 dampers on the wire. I'm looking at that stuff as the
10 overall picture of it as I'm approaching it.

11 When I get there, I'm literally going to put my
12 hands on the tower, shake the tower. If there is loose
13 steel, you can hear it. I'm going to look at the
14 footings.

15 In the Feather River Canyon oftentimes in the
16 wintertime we get landslides. So I'm looking at anything
17 like that, if any of the ground has shifted or anything.
18 And then just working my way up with the tower. I'm
19 going to look at the conductors. If there's any sort of
20 conductors, I'm looking at those. I'm looking at the
21 insulators. And, oh, just basically using my binoculars
22 and just getting the best view as I can on the actual
23 shoe that attaches the conductor to the insulator and, if
24 possible, positioning myself for multiple angles.

25 Depending on the style of the tower, a
26 suspension tower just has three strings of insulators

1 hanging straight down. A dead-end tower has insulators
2 going out both sides because the wire is actually dead on
3 both sides of the tower so it creates a lot more to look
4 at.

5 Q. How much time would you estimate you spend at
6 each tower doing a detailed ground inspection?

7 A. It kind of varies depending on the terrain. If
8 it's a spot where I can -- if it's a double dead-end
9 tower and I can position myself to get real good views,
10 then I spend longer than if it's on the edge of a cliff
11 and I can only look at it from one side.

12 I would say anywhere from ballpark ten minutes
13 on each tower probably.

14 Q. And how many ground inspections -- detailed
15 ground -- detailed ground inspections have you done?
16 Inspections such as that?

17 A. I've been doing the detailed ground inspections
18 since May of 2016 and probably -- I don't know -- 10 to
19 15 different circuits. Maybe up to 20 a year. It varies
20 some months or the workload is heavier than others. And
21 that's both wood pole and steel tower lines.

22 Q. Okay. And during your detailed ground
23 inspections, do you actually climb the towers?

24 A. No.

25 Q. Why not?

26 A. That's -- it's my understanding that that is

1 something that the tower department does.

2 Q. And where do you get that understanding?

3 A. Just through hearsay of the tower department
4 doing the climbing inspections.

5 Q. Okay. Now, the ETPM actually talks about doing
6 climbing inspections in towers; correct?

7 A. Yes.

8 Q. But as far as you as a troubleman, you have
9 never done a climbing inspection of any tower?

10 A. No, I never have.

11 Q. Now, let's talk a little bit about the air
12 patrols. Describe for us an air patrol.

13 A. Okay. An air patrol you're basically getting in
14 a helicopter and flying the line. And so looking for,
15 you know, conductor -- me personally looking for
16 conductor damage, insulator damage, can be looking for
17 the presence of vibration dampers.

18 I'm not paying attention to some of the smaller
19 details like if there's a high voltage sign present or if
20 there's a number on the tower. And you just start at one
21 end, fly from one end of the circuit to the other.

22 There are various things that kind of determine
23 how you're going to fly. It could be your position in
24 the helicopter. The lines in the Feather River Canyon,
25 there's multiple transmission lines. And some are lower
26 on the hill and some are higher on the hill that. That

1 will determine kind of what side of each circuit you
2 could fly. Depending on where you're at in the ship will
3 determine if you're going to go up river or down river or
4 toward the wind or the sun. But basically just starting
5 at one point and flying from tower to tower.

6 Speed varies depending on conditions in the
7 terrain. And just looking for anything that looks out of
8 the ordinary. When you -- when you look at so many
9 structures, after a while anything that is different it
10 will catch your eye. And so you do do your best to get,
11 you know, as good a look as you can at everything. But
12 it's something that after -- oh, it's just a certain
13 amount of time anything different will catch your eye.

14 And at that point when you see something that
15 you want to take a look at, you ask the pilot to circle.
16 He'll circle back around. You know, kind of conditions
17 permitting he'll hover and you can use your binoculars
18 to -- we use image-stabilizing binoculars to look at
19 whatever issue you might have seen.

20 At that point if it is, if you do confirm that
21 it's a problem, you get pictures of it, take down some
22 notes documenting what the issue is, access if you know
23 it, if you can see a road nearby, you know, tower
24 structure number and that sort of thing.

25 Q. Going back, you said you're looking for anything
26 out of the ordinary. What training do you have to tell

1 you what these towers are supposed to look like to begin
2 with?

3 A. Oh, I feel like you get that through time in the
4 field for sure. You know, just as a lineman you come to
5 know what a flashed insulator looks like. On -- you
6 know, on a conductor anything shiny, like any sort of
7 discoloration or shine that you see might indicate that,
8 you know, there's an issue right there. Basically just
9 experience, on-the-job experience.

10 Q. Okay. All right. We talked about that. Let's
11 skip ahead. Section 2.1.4 of 258, the Electric
12 Transmission Preventative Maintenance Manual. Are you
13 familiar with that section?

14 A. I am familiar with once again the data sheet and
15 the object list, not specifically with this document
16 right here (indicating).

17 Q. Okay. So let's move ahead. Section 2.2. Are
18 you familiar with section 2.2?

19 A. No, I am not.

20 Q. Okay. How about Appendix E: Line patrol file
21 guidelines. It would be way at the back. Actually, all
22 the way to the back. Out of 85 pages it starts on
23 page 83.

24 A. Okay. I'm not familiar with this.

25 Q. Okay. So have you ever inspected or patrolled
26 the Caribou-Palermo 115 kV line?

1 A. Yes, I have.

2 Q. On how many occasions?

3 A. I don't know the exact number. I've done two or
4 three complete air patrols of the line. That's as best
5 as I can remember. And I have done, I believe, an
6 infrared patrol on the line. And I've also done
7 non-routine patrols on that line, air patrols, and --

8 Q. Okay. So let's break that down. When you say
9 you've done two to three air patrols of that line, what
10 does that entail?

11 A. That entails, as I was describing earlier, when
12 you're starting at one end of the circuit and fly the
13 entire circuit looking at every structure.

14 Q. Okay. Do you remember what years?

15 A. I don't remember if I did that patrol in 2016,
16 but I'm pretty certain I did 2017 and 2018.

17 Q. Okay. Were you doing it yourself or were you
18 doing it partnered with somebody else?

19 A. I believe -- I think in 2017 I did it by myself
20 and then in 2018 I did it with another troubleman.

21 Q. Who was that? Who was that?

22 A. (WITNESS #18).

23 Q. Okay. How about 2016?

24 A. I don't remember if I did it in 2016.

25 Q. Okay. You said you did RI on the line. Can you
26 explain to us what "RI on the line" means?

1 A. Yeah. That's an infrared patrol where an
2 actual -- a special camera is mounted on the helicopter.
3 There's a contractor that PG&E uses that sits in the back
4 seat of the aircraft looking at an actual television
5 screen. The line has to be energized. And basically,
6 the camera picks up the temperature of the line. And any
7 area that is above normal out of a temperature range will
8 show up on that camera and then that gets identified and
9 a work order gets issued.

10 Q. Finally, you talked about you did non-routine
11 air patrols. What are those?

12 A. A non-routine is if we have an outage or even a
13 momentary outage where -- a momentary outage is if
14 something happens, the protective equipment at the
15 generation or the substation senses it, de-energizes it
16 for just an instant, and then re-energizes it. And the
17 problem is gone and it holds safe during a momentary
18 outage.

19 Whenever we have a momentary outage, we have to
20 do a patrol on the line. With most of the lines in the
21 canyon access is extremely difficult. So we usually use
22 a helicopter for our non-routine patrols up there. And
23 you can -- the substation can give you, oh, kind of a
24 target area of where the equipment sensed the issue at.
25 And you kind of can concentrate your efforts in that
26 area.

1 Q. Do you use helicopters to do non-routine patrols
2 in the middle of winter?

3 A. Yes. Weather permitting we will use
4 helicopters. If you can't use a helicopter, then it
5 would be a ground.

6 Q. For instance, on the Caribou-Palermo during the
7 wintertime, is it accessible by road most of the time?

8 A. It's -- it's not. You can get close, but it
9 would -- it's not very effective to do a non-routine
10 patrol in the Caribou-Palermo by ground. It's more
11 effective by air.

12 Q. So usually by air?

13 A. Yes.

14 Q. No matter what the time of year we're talking
15 about?

16 A. Yes. Whether permitting it's best to do it by
17 air.

18 Q. I guess we've never asked this before, but is
19 there kind of a season for when you do your annual air
20 patrols or your ground inspections?

21 A. Yes, there is. Most of -- yes. The seasons
22 they are set up to be able to access them for sure.
23 Because we do have -- we have lines that in the
24 wintertime, you know, there might be six or eight feet of
25 snow in there. And so definitely the early part of the
26 year most of the inspections are done here in the valley

1 and then this time of year most of the inspections are up
2 in the canyon up by Lake Almanor.

3 Q. So summer, early fall are the inspection seasons
4 for the mountain transmission lines; is that right?

5 A. Yes.

6 Q. Okay. All right. Now, I want to draw your
7 attention to what is marked as 249. It should be right
8 here on this file on your right.

9 Do you recognize what is marked as Exhibit 249?

10 A. Yes, I do.

11 Q. What is Exhibit 249?

12 A. It is a Caribou-Palermo -- let's see. It's a
13 Caribou-Palermo air inspection.

14 Q. Go ahead. And you can look all through it.

15 A. Yeah. It's a Caribou-Palermo air inspection.

16 Q. All right. For what year?

17 A. For 2017.

18 Q. And who was the troubleman doing this
19 inspection?

20 A. I was.

21 Q. All right. Let's start off -- we have up on the
22 big board for the jurors to see the front page. Can you
23 explain to us what we're looking at.

24 A. Yes. Basically, it's the cover sheet for the
25 Caribou-Palermo. It tells you it is, in fact, the
26 Caribou-Palermo. It tells you when it needs to be done

1 by. Those are the things that I look at.

2 Q. Is this a form that you fill out or something
3 that you're given?

4 A. This is something that -- this packet right here
5 is something that I'm given before the patrol.

6 Q. Okay. Who determines when you're going to do
7 these patrols?

8 A. I don't know that.

9 Q. You're just -- you're told when to do it;
10 correct?

11 A. Yes. At the beginning of every year I get a
12 list of all my patrols for the year and what months that
13 they will be due in.

14 Q. Okay. I was just wondering do you know what it
15 means when it says "PATR/INSP 10391 Caribou-Palermo." Do
16 you understand what that means?

17 A. I understand the patrol inspection. I don't
18 know what that number is.

19 Q. Okay. And how about this "Quarterly patrol Q3
20 move date to end of September"?

21 A. I don't know what that is. I'm not sure.

22 Q. Do you do quarterly patrols on the
23 Caribou-Palermo?

24 A. We do. Our air patrols are quarterly. So if --
25 I don't know if maybe the Caribou-Palermo -- I'm just
26 speculating here. I don't know. The Caribou-Palermo

1 line might have been --

2 Q. Okay. We don't want speculation. We just want
3 to know how often do you patrol when you do air patrol on
4 the Caribou-Palermo?

5 A. Every year.

6 Q. How many times a year?

7 A. Once.

8 Q. One time. Okay. So you're not doing quarterly
9 patrols on the Caribou-Palermo?

10 A. No.

11 Q. How often do you do air patrols on other 115 kV
12 lines?

13 A. It's -- it's -- we do have -- it varies on the
14 steel lines. It's every year. On the wood pole lines
15 it's every other year.

16 Q. Okay. The same question: How often do you do
17 air patrols on 230 kV lines?

18 A. That we do have some wood pole 230 lines. I
19 don't have any in my area. But that would be the same --
20 the wood poles are getting looked at every other year.
21 One year ground, the next year air. The steel would be
22 looked at every year by the air.

23 Q. Okay. You said your area. Do you have a
24 defined jurisdictional area that you're in charge of?

25 A. Yes. I have Butte County up the Feather River
26 Canyon to Plumas County and a little bit up in Lassen

1 County.

2 Q. Okay. So are you in charge of inspecting and
3 patrolling all of those transmission lines?

4 A. Yes.

5 Q. Do you have any 500 kV lines?

6 A. I don't have any 500 kV lines in my area, but we
7 do have 500 kV lines in our area.

8 Q. How many different transmission lines do you
9 have in your area in Butte County up the Feather River
10 Canyon?

11 A. I don't know off the top of my head. I could
12 count them up, but I don't know right now.

13 Q. Go ahead. We've got time.

14 A. Okay. I've got the Colgate-Palermo. I've got
15 the Palermo-Colgate. I have the Poe Rio Oso, the Cresta
16 Rio Oso, the Rock Creek Poe, the Bucks Creek, Rock Creek
17 Cresta, the Belden tap, the Grizzly tap, the
18 Caribou-Palermo, the Caribou Table Mountain, the Butt
19 Valley Caribou, the Caribou Number Two, the Caribou
20 Plumas Junction, the Plumas Sierra tap. I have a portion
21 of the Hat One Westwood. And I believe that's it.

22 Q. Let's focus on the lines running up the Feather
23 River Canyon. How many lines are there that run up the
24 Feather River Canyon?

25 A. There is the Caribou-Table Mountain is a 230
26 line. There is -- the Cresta Rio Oso coming out of there

1 is a 230 line. The Poe Rio Oso coming out of there is a
2 230 line. The Caribou-Palermo is a 115 kV line. The
3 Grizzly tap is a 115 kV line. The Belden tap is a 230
4 line. The Butt Valley Caribou is a 115 line. Caribou
5 Number 2 and the Caribou Plumas Junction are both 60 kV
6 lines. And those are all in the canyon.

7 Q. And those are all lines that you're in charge of
8 inspecting and patrolling?

9 A. Yes.

10 Q. Correct?

11 Are there -- well, do you know the history of
12 the Caribou-Palermo line?

13 A. I don't. I'm not exactly sure what your
14 question is there.

15 Q. Let me make it easier. Do you know how old the
16 Caribou-Palermo line is?

17 A. I do. I have an idea. I don't know exactly.

18 Q. Okay. How about the other three lines that run
19 parallel to the Caribou-Palermo up the canyon? The 230
20 lines?

21 A. The only other -- I don't know their dates. I
22 have an idea of the Bucks Creek Rock Cresta.

23 Q. Okay. Well, would it be -- I know you don't
24 know the dates. So would it be fair to say that the 230
25 lines that run parallel to the Caribou-Palermo were
26 significantly younger than the Caribou-Palermo?

1 A. Yes.

2 Q. In terms of your inspection plans or the
3 inspections themselves or the patrols, do you take into
4 account the age of the lines you're inspecting?

5 A. Yes.

6 Q. And how so?

7 A. I feel like you just -- you see some differences
8 probably more specifically on the wood pole lines. You
9 see just some different issues than on the newer, yeah.

10 Q. Well, let's just talk about the way that you
11 inspect, and let's stick to the steel towers.

12 Do you inspect more often an older line such as
13 the Caribou-Palermo than you would a line that was built
14 in the '60s or '70s?

15 A. No.

16 Q. When you're doing your air patrols, are you
17 changing the way that you do your air patrols to take a
18 more detailed look at older lines like the
19 Caribou-Palermo than you would for younger lines?

20 A. No. They are -- my inspection process is going
21 to be the same. You could -- there are certain
22 insulators in the canyon that are harder to see flashes
23 on. The newer insulators are easier to see flashes on
24 so, but the inspection process is the same.

25 Q. Okay. So it would be safe to say that in terms
26 of the inspection process itself in terms of cycles of

1 inspections and the inspections themselves, there is no
2 difference between the Caribou-Palermo and a line that
3 may have been built in the '60s or '70s?

4 A. It would be the same.

5 Q. Okay. All right. Let's flip over 249 to the
6 third page. I'm asking you to explain what we're looking
7 at.

8 A. Okay. This page is a listing of prior tags
9 written on the line that you're looking at. So basically
10 it shows you the circuit, it shows you the tower number,
11 and what the issue that they found was. So if while
12 you're doing your air patrol you spot an issue, you can
13 refer back to your list of priors and determine if it's
14 already been identified. And if it has, then you don't
15 create another work order to have it fixed.

16 Q. All right. So these are the open notifications
17 at the time of your patrol?

18 A. Yes.

19 Q. And the top one up here says "Caribou-Palermo
20 NERC Project." Do you know what that means?

21 A. I know a lot of NERC projects were like
22 tower-raising type projects.

23 Q. So you're not familiar with that project?

24 A. No.

25 Q. That's not tied to any specific tower; correct?

26 A. No. It does not list the tower number.

1 Q. Okay. All right. Let's flip to the next page
2 on the transmission line inspection data sheet.

3 Do you recognize that page?

4 A. Yes, I do.

5 Q. And why don't you tell us about this page.

6 A. Okay. On this page you basically -- you list
7 the issues that you found, structure number, what was
8 wrong, if it was an insulator or what have you, the
9 priority. That can be A, B, or E. And that is a
10 timeframe that it needs to be fixed in.

11 "A" is an emergency that needs to be fixed
12 immediately, "B" you have 90 days, and "E" you have one
13 year to fix it. And then you just put in the comments of
14 what the issue was.

15 Q. Okay. Let's go up to the top right corner. It
16 says "Inspector name." Did you write that in?

17 A. Yes.

18 Q. "Date inspection completed."

19 A. Yes, I wrote that.

20 Q. September 13, 2017, is the date you completed
21 your inspection?

22 A. Yeah.

23 Q. Miles inspected. How many miles did you
24 inspect?

25 A. Oh, 54.8.

26 Q. And the number of structures that you inspected?

1 A. Yes. Oh, 456.

2 Q. Four hundred fifty-six. And what does that
3 number represent?

4 A. That represents the number of towers on this
5 line.

6 Q. Okay. Now, you have your inspections finding
7 data?

8 A. Yes.

9 Q. Who fills that out?

10 A. I fill this out.

11 Q. And describe for us what is in there.

12 A. Okay. So, yeah, I put the date that I found the
13 issue, the structure number, what facility it was, the
14 damage. These terms are all predetermined. We don't
15 have a lot of -- you know, it's already -- basically, you
16 can either repair or replace is the action. And then the
17 priority. These are one-year tags. And then the comment
18 is actually what needs to be done.

19 Q. Okay. And what is the number at the end?

20 A. That is when the tag is created. That number
21 gets assigned to that tag. And then our clerk can use
22 that number to look up the tag and assign it a PM number
23 which is used to charge the crews time.

24 Q. So going backwards back to what you said was
25 your priors page, the far left column, it's yellow. See
26 that?

1 A. Yes.

2 Q. What are those?

3 A. Those are the notification numbers you get when
4 you create the tag, yeah.

5 Q. Okay. So the numbers that are in the far right
6 column on the transmission line inspection data sheet?

7 A. Yeah. That's the same thing.

8 Q. Okay. And then you signed it down at the
9 bottom?

10 A. Yes.

11 Q. You dated it?

12 A. Yes.

13 Q. And then it says LanI.D.

14 A. Yeah. That's our -- kind of like our company
15 I.D.

16 Q. What is your LanI.D.?

17 A. "dpci."

18 Q. Any idea how they came up with those letters?

19 A. It's your initials and then they add a letter or
20 a number at the end.

21 Q. Okay. Supervisor signature. Do you know who
22 the supervisor was?

23 A. Yes.

24 Q. Who is that?

25 A. (WITNESS #12).

26 Q. Is (WITNESS #12) still your supervisor?

1 A. No.

2 Q. And his LanI.D.?

3 A. Well, you know what? This one I can't --
4 honestly, I can't tell if this was (WITNESS #12) or
5 (WITNESS #22) to be honest with you.

6 Q. Okay. It's hard to read.

7 Who is your current supervisor?

8 A. (WITNESS #22).

9 Q. Okay. All right. Let's go to the next page.
10 What is this page?

11 A. This page basically we put down the date that we
12 did our patrol and you write down where you started and
13 where you finished and then at the bottom you write down
14 the problems that you found.

15 Q. Okay. So let's walk through this. "Inspected
16 by." That is your name at the top?

17 A. Yes.

18 Q. And then there's descriptions of the
19 Caribou-Palermo?

20 A. Yes.

21 Q. Okay. "Date inspected." When did you inspect
22 it?

23 A. On September 13th of 2017.

24 Q. And what structures did you inspect?

25 A. I started at ought over one Caribou Powerhouse
26 and ended at ought over one at Palermo Sub and looked at

1 everything in between.

2 Q. Okay. So you started clear up in Caribou and
3 you worked your way all the way down to Palermo?

4 A. Yes.

5 Q. Caribou-Palermo. That's the entire line;
6 correct?

7 A. Yes.

8 Q. That's where it gets its name; right?

9 A. Yeah.

10 Q. It goes from Caribou Powerhouse Number One to
11 Palermo?

12 A. Yes.

13 Q. And then at the bottom under "notes" what does
14 it say?

15 A. It says "Patrolled the entire line with three
16 problems found."

17 Q. And is that referring to the problems that you
18 list on your data inspection sheet?

19 A. Yes.

20 Q. So this is the last page of your report;
21 correct?

22 A. Yes.

23 Q. There is no transmission object list attached to
24 your report; is that correct?

25 A. That's correct.

26 Q. How come?

1 A. At some point -- and I don't know -- I don't
2 know exactly why. At some point the air patrols used
3 to -- the documentation used to look like the ground
4 patrols as far as the object list. The problem -- in my
5 mind the problem was there's a lot of priors so -- oh,
6 let's not get complicated.

7 It's -- when you look at a structure and you
8 have a ground patrol object list, you have boxes that are
9 options to check. "No problems found." Or if you found
10 a new problem, you check that. If you check "previous
11 conditions," you can check that.

12 On the air patrols oftentimes there are previous
13 conditions you can't verify from the air. You might not
14 be able to tell if the tower has been painted. A lot of
15 them look painted. You can't tell if it's been recently
16 painted. You might not be able to tell if a footing had
17 been fixed or if a piece of steel had been tightened
18 down.

19 So you can't -- you couldn't really go through
20 your air patrol and check, you know, preexisting
21 condition check and that sort of thing. So in my mind
22 that is why we switched to this type of documentation.
23 It's just a more accurate way to kind of document the
24 patrol.

25 Q. So you're not actually keeping track of every
26 structure as you fly over them anymore?

1 A. No, no. You can't. When I do an air patrol,
2 I'm bringing my list of priors with me. And that is --
3 and when I see an issue, I'll reference that and see if
4 it's already been documented. If not, at that point I'm
5 determining -- I'm getting my pictures, I'm confirming
6 the tower number, and that sort of thing.

7 Q. Okay. Now, I want to switch it up a little bit.
8 And you should have in this stack up here Exhibit
9 Number 250.

10 A. Yes.

11 Q. Recognize Exhibit Number 250?

12 A. Yes.

13 Q. What is Exhibit Number 250?

14 A. This is a tag to replace some insulators on the
15 Caribou-Palermo.

16 Q. Okay. What do you mean by "tag"?

17 A. When you find an issue -- this is an older tag.
18 There's the kind we used to create on a desktop computer.
19 And so when you find an issue, you would fill out this
20 tag with, you know, structure number, location, access,
21 notes if needed, and basically send it off to the clerk.

22 Q. Okay. Up here in the far right we have again
23 that notification number.

24 A. Yes. That is a number that is -- I don't
25 know -- when these tags were created, I don't know who
26 came up with that number. Now, when I create tags, I do

1 it on an iPad and the iPad generates a number. I don't
2 know where this number got generated on this one.

3 Q. So since 2017 the process has changed?

4 A. Yes.

5 Q. Is that correct?

6 A. Yes.

7 Q. Okay. But this is a tag or notification that
8 you created yourself?

9 A. Yes, that's correct.

10 Q. And for demonstrative purposes going back to
11 when you were doing your annual air patrol, when you
12 found problems -- for instance, for three problems that
13 you found, would you create one of these notifications or
14 tags for each one of those?

15 A. Yes.

16 Q. All right. Tell us about this tag itself.

17 A. Okay. At the top you have the circuit which is
18 Caribou-Palermo. The 24/200 -- that is a structure
19 number. And then the next is the insulators that is the
20 problem. And then down here where it says "insulator" --
21 or "facility insulators on steel," there are no good and
22 they need to be replaced. The priority is an "E" tag,
23 which is one year.

24 My LanI.D. is in the box. Once again down here
25 we have the line name. It's a 115 kV line for the
26 voltage on a steel tower. Also the structure number

1 again. The nearest road. Excuse me. Camp Creek Road
2 and Dixie Road. And then the nearest town. It says
3 "Twain" there.

4 Down here it says "Identified during crew work."
5 I don't recall -- this tag specifically I don't remember
6 it. It's got the lat/long on it. Basically, down here
7 it says "Clearances required to change" which means the
8 line needs to be de-energized.

9 "Going to replace all the insulators on the
10 tower." The insulators were flashed. It could have
11 probably -- it was probably during a lightening storm.
12 "There's no access to this tower" meaning no ground
13 access and it's going to require a helicopter to get
14 personnel and equipment there.

15 Q. Is there a date somewhere that indicates when
16 this occurred?

17 A. Let's see here. Yes. Okay. January 10th of
18 2017.

19 Q. So this was a notification that you generated?

20 A. Yes.

21 Q. All right. Let's flip the page behind there.

22 A. Okay.

23 Q. Go back to the back page.

24 A. Okay.

25 Q. Skip page 2. There's not --

26 Do you recognize what is on page 3?

1 A. Yeah. Pictures from the helicopter.

2 Q. Okay. Who took these pictures?

3 A. I would have.

4 Q. So walk us through how you get -- how you are to
5 take these pictures?

6 A. Okay. Basically, I just -- I bring a Sony
7 camera with me. And now I will bring the iPad and the
8 camera. If it's something that's a picture that I can
9 actually capture with the iPad, I will. If it's
10 something that I need to zoom in more, then I will use my
11 Cannon.

12 Q. Okay. So top picture we have picture 200. Is
13 that the structure number?

14 A. Yes, it is.

15 Q. And then we have another picture. It looks like
16 one picture is a close-up and one picture is far away;
17 right?

18 A. Yes, that's correct.

19 Q. And this thing you see on the bottom of the
20 bottom picture, is that the skid on the --

21 A. That is the skid from the ship, yes.

22 Q. -- on the helicopter?

23 So January of 2017 you were flying over this
24 tower trying to look for a problem; is that correct?

25 A. Yes.

26 Q. And what was the problem you were looking at?

1 A. This was flashed insulators.

2 Q. And what does that mean?

3 A. Oh, when -- it's usually due to lightening hits
4 the line. That is oftentimes where the lightening will
5 go to ground over the insulators. They are insulating
6 for 115 voltage, not for the voltage that lightening will
7 put on it. So it will actually burn a spot on the
8 insulator where it went to ground through the tower.

9 Q. You can stand up and use the board if you want
10 to.

11 Explain to us how you can see from a helicopter
12 that insulators are flashed.

13 A. Okay. Well, most of the time it will be right
14 here (indicating) where the insulator is flashed near the
15 steel. These are non-ceramic. So this is -- you know,
16 this is like porcelain. Some of them are glass. These
17 are like rubberized. But most of the time the flash will
18 be right about here (indicating), and it just looks like
19 a white spot on the insulator.

20 Q. How big?

21 A. It varies. It can be the size of a quarter or
22 they could be the size of a softball.

23 Q. Okay. How close do you have to get to see
24 flashed insulators?

25 A. That also varies. Sometimes you can see them as
26 you're approaching just depending on the lighting and

1 that sort of thing. Other times you get a real good look
2 and you have to have the pilot hover and look at it with
3 binoculars to tell.

4 Q. Okay. All right. Let's move on to Exhibit 251.
5 Do you see Exhibit 251?

6 A. Yes.

7 Q. Do you recognize Exhibit 251?

8 A. I don't remember it but, yeah. I mean, this is
9 a form that we used for sure.

10 Q. Okay. So what is this form marked as
11 Exhibit 251?

12 A. This is a tag for the same tower on the
13 Caribou-Palermo 24/200, and it has a damaged conductor.

14 Q. And what is the date on this one?

15 A. This one is the same date; January 10, 2017.

16 Q. So same tower, same date, two separate
17 notifications?

18 A. Yes.

19 Q. Can you explain to us why.

20 A. I don't know why. It's an accounting thing.
21 But, yeah, I don't know why. It has to be -- each
22 facility needs its own tag. So if you have damaged
23 insulators, damaged conductor, and it needs high voltage
24 signs, that's three different tags.

25 Q. Okay. So you don't just generate one tag to
26 cover everything in the tower?

1 A. No.

2 Q. So there's multiple problems in the tower and
3 you generate multiple tags?

4 A. Yes.

5 Q. All right. And this, as you said, is another
6 tag for 24/200?

7 A. Yes.

8 Q. Same date. And what is this tag for?

9 A. It is to -- that is the middle phase conductor
10 is damaged.

11 Q. Okay. So let's skip back again to page 3, I
12 think. Do you recognize the photographs on page 3?

13 A. Yes.

14 Q. And what are those photographs?

15 A. They are of the center phase and the condition
16 of the conductor.

17 Q. Okay. Describe for us real briefly what you
18 mean when you say "the center phase."

19 A. There's a three phase on a tower line. So two
20 of them on the Caribou-Palermo and two of them on the
21 outside of the tower and one of them is in the center of
22 the tower. So this is the center or the middle
23 conductor.

24 Q. So explain to us what we're looking at in these
25 photographs.

26 A. Basically, on this -- on this style of tower

1 there's insulators that are above the conductor. So we
2 have a set of insulators attached to the tower coming
3 down. The conductor is on the bottom of the insulator
4 there and then we have another set of insulators going
5 from the conductor down but basically holding that center
6 conductor because it literally goes through the middle of
7 the tower from swaying side to side.

8 Here the bottom insulator string had come loose
9 from the conductor and basically allowed that conductor
10 to swing and come in contact with the tower. And that is
11 where you see the --

12 Q. Feel free to get up there.

13 A. -- the damage here and here (indicating).

14 Q. Okay. Let me give you one more tool here to
15 play with. Come on. It takes a minute.

16 What color would you like?

17 A. Any color is fine.

18 Q. All right. You got red. So your finger is now
19 a pen. You can draw all over this.

20 A. Okay. So here we have damage, here we have
21 damage here, and this right here (indicating) we have
22 damage here as well. Those are things you can see that,
23 you know, have some strands missing there.

24 Q. Okay. So you believe based upon what you're
25 seeing that this conductor -- this energized conductor
26 came in contact with the tower structure itself?

A. Either -- that would be my guess. I don't know for sure, but that's with the -- with the bottom insulator string coming loose. It just allowed that conductor too much movement.

Q. What makes you think that the conductor came into contact with the structure?

A. The amount of damage.

Q. How so?

A. Usually, if it was lightening, you don't see the conductor damaged. It's mostly insulator damage. So this looks like to me something that it went straight to the ground.

Q. Okay. Let me save this, and we will get that marked as 251-A.

[Exhibit 251-A marked
for identification.]

BY MR. NOEL:

Q. Now, the photographs -- are these again taken from the helicopter?

A. I don't know.

Q. Okay. Well, let's move on. There is one more picture. I'm sorry. The last page.

Can you tell us what we're looking at in the last picture.

A. It looks -- it's the insulator string. I can't tell if maybe those are -- if that is arcing on the tower

1 or not. Where the conductor may have contacted that I
2 don't know.

3 Q. What do you mean "arcing"?

4 A. I can't tell if it's the leg. It may be this
5 discoloration right here (indicating). I can't tell if
6 that is just the tower drying off or if that is somewhere
7 that the conductor contacted. I'm not sure.

8 Q. So if the energized conductor contacted the
9 tower, the tower would be scarred by that?

10 A. Yes.

11 Q. Okay. All right. Let's move on to 252. Do you
12 recognize the document marked as 252?

13 A. Let's see here. I don't -- I mean, if -- this
14 looks -- this looks like one of our newer tags, but it
15 says "10/28/18 end date."

16 Yeah, it looks like one of our newer tags
17 whereas the ones with the yellow on them were our older
18 tags. This looks like one of our newer tags.

19 Q. Okay. And which tower structure was this?

20 A. This is also 24/200.

21 Q. Okay. And what I'm looking at specifically is
22 "reported by."

23 A. Yes. That is my LanI.D.

24 Q. And January 10, 2017?

25 A. Yes.

26 Q. So same date as the other two that we were just

1 looking at; correct?

2 A. Yes.

3 Q. And this is for conductor damage?

4 A. Yes.

5 Q. All right. Do you understand how this fits in
6 with the other -- the corrected work forms that you
7 actually fill out?

8 A. This -- to me this looks like a copy of the
9 actual tag that the foreman filled out when he completed
10 the repairs.

11 Q. Okay. So this isn't something that you
12 completed or that you necessarily know anything about?

13 A. No.

14 Q. Okay. So let's move on from that.

15 So now I want to talk a little bit about the
16 mechanics and the helicopter inspection itself.

17 A. Okay.

18 Q. We have talked about the inspection that you
19 actually did on the Caribou-Palermo line in 2017 and
20 other lines that you've done.

21 How many helicopter inspections do you think
22 you've done as a troubleman?

23 A. I couldn't count. I don't have an idea. A lot.

24 Q. You have quite a few lines that you're
25 responsible for; correct?

26 A. Yes.

1 Q. Explain to us the process of how you arrange a
2 helicopter for the aerial patrols.

3 A. Okay. At the beginning of the year we get
4 our -- we get our quarterly patrols so we know what is
5 due in first, second, and third quarter. Probably about
6 a month out you fill out a helicopter request form. And
7 it will have basically the dates that you'd like to fly
8 and what lines you're flying and if you have a specific
9 type of helicopter that --

10 You know, the higher elevation -- warm weather,
11 higher elevation you need a helicopter with more power
12 than if it's cool weather down here in the valley. So
13 you basically give them all that information and you
14 submit a request to Heli Ops.

15 Q. Okay. Helicopter request form. Describe it for
16 us.

17 A. It's just a form I bring up on the computer. It
18 asks when I want to fly, what lines I want to fly. It
19 asks how much I weigh, what equipment I'm going to be
20 bringing with me, if I have a preferred vendor to use,
21 and where I want to be picked up or where I want to meet
22 the pilot. That sort of thing.

23 Q. Okay. What do you mean a preferred vendor?

24 A. Well, we have multiple companies that we use.
25 So usually I will try to fly with someone that is here
26 local just to eliminate basically ferry time. I don't

1 want to have a pilot flying two hours before he picks me
2 up if possible.

3 Q. Okay. Is there a company that you normally fly
4 with?

5 A. I try to fly with A&P.

6 Q. And where is A&P located?

7 A. They are in Richvale just east -- or west of
8 Oroville.

9 Q. You said that you tell them what date you want
10 to fly?

11 A. We have to look at our schedule depending on how
12 our ground patrols are coming and what kind of switching
13 that we have.

14 Q. Excuse me a second. And then you indicate where
15 you want to be picked up?

16 A. Yes.

17 Q. Explain, please.

18 A. Well, if I'm going to use the A&P, for instance,
19 I will drive to their hanger and get in the ship there.
20 If it's another vendor, I usually get picked up at the
21 Oroville Airport. So that is something -- they just want
22 something -- basically an idea of where you're going to
23 meet the pilot.

24 Q. Okay. And all of this is put into a form that
25 you said is submitted to where?

26 A. To helicopter operations.

1 Q. And what is helicopter operations?

2 A. It's a department within PG&E. They are down in
3 Vacaville. They kind of oversee basically, you know,
4 when -- who's flying where and what ships are in the area
5 for safety reasons.

6 Q. Okay. All right. Is there some process for
7 requesting the helicopters?

8 A. That form. For me that is the process. Once it
9 goes to Heli Ops, they will check and see what ships are
10 available or if any at all.

11 Q. All right. How many helicopter aerial patrols
12 do you do at a time?

13 A. Do you mean how many lines at one time?

14 Q. Yes, Sir.

15 A. They would vary. It just depends on how many
16 you're assigned right then. And also you can have so
17 many that you can't do it in one day. Usually it takes
18 two or three days to complete them all.

19 Q. Okay. So I want to go to Exhibit 253 which is
20 next in order there. Now, do you recognize Exhibit 253?

21 A. I don't. I recognize the lines on it, but I
22 haven't seen this before.

23 Q. Okay. This is an e-mail; correct?

24 A. Yes.

25 Q. And it was sent from someone named (WITNESS
26 #21)?

1 A. Yes, that's correct.

2 Q. And do you know (WITNESS #21)?

3 A. Yes, I do.

4 Q. Who is (WITNESS #21)?

5 A. She's our clerk at Table Mountain.

6 Q. Okay. And to someone named Aja Lodigiani?

7 A. Yes. She's a lady that works at Heli Ops.

8 Q. Okay. Down in Vacaville?

9 A. Yes.

10 Q. And it's cced to (WITNESS #22). Who is (WITNESS

11 #22)?

12 A. He is my supervisor.

13 Q. And (WITNESS #18)?

14 A. (WITNESS #18) is also a transmission troubleman.

15 Q. Okay.

16 A. Myself. (WITNESS #10) is a transmission

17 troubleman. (EMPLOYEE #16) is also a transmission

18 troubleman. And I don't know what Stacie Doyle does.

19 Q. Okay. And this is an e-mail from September 22nd

20 of 2017; correct?

21 A. Yes.

22 Q. Now, specifically what we're talking about is

23 this (indicating) down here in green; right? "Flown on

24 9/13/17."

25 A. Yes.

26 Q. There's three entries in there.

1 A. Yes, that's correct.

2 Q. Caribou-Palermo, Caribou-Westwood, and Butt
3 Valley Caribou?

4 A. Yes.

5 Q. Correct?

6 A. Yes.

7 Q. What are Caribou-Westwood and Butt Valley
8 Caribou?

9 A. Caribou-Westwood is a 60 kV line. It's a wood
10 pole line. It runs from Caribou Powerhouse to Westwood
11 Substation.

12 Q. And where is Westwood Substation?

13 A. Westwood Substation is in between Chester and
14 Susanville. It's in the town of Westwood. The Butt
15 Valley Caribou is a 115 steel tower line that runs from
16 Butt Lake to Caribou Powerhouse.

17 Q. Okay. And these were on 9/13 of '17?

18 A. Yes.

19 Q. So that is the same date that you did the 2017
20 aerial patrol of the Caribou-Palermo; correct?

21 A. Yes.

22 Q. So you actually patrolled three lines that day?

23 A. Yes, that's correct.

24 Q. And the day before you did three other lines; is
25 that correct?

26 A. Yes.

1 Q. So this e-mail is just showing the schedule of
2 lines that you're doing?

3 A. Yes.

4 Q. Okay. How long does it take generally to fly
5 the Caribou-Palermo?

6 A. Oh, I would say depending on conditions three to
7 four hours.

8 Q. All right. So I want to talk about things
9 you're looking for. You said earlier -- let me make sure
10 I got it right. When you're doing an aerial patrol, you
11 are looking for glaring issues; is that correct?

12 A. Yes.

13 Q. You also said you're not paying attention to
14 smaller details. What would you consider smaller
15 details?

16 A. Smaller details to me are, you know, like the
17 markings, the tower number, the high voltage signs. That
18 sort of thing.

19 Q. What about connection points?

20 A. I think connection points are very important.
21 Unfortunately, it's not -- it's not something that you're
22 going to be able to, oh, kind of really dissect in an air
23 patrol.

24 Q. How come?

25 A. There's various reasons. Depending on the
26 proximity of the other transmission lines, trees,

1 mountains, weather, sun angle, sometimes you can't hover.
2 Sometimes the best you can do is make a very slow pass.
3 All those things just make it difficult to see something
4 in great detail.

5 Q. Okay. So how would you look at connection
6 points?

7 A. I would -- I would look at them as we went --
8 you know, on the patrol the same as I would look at an
9 insulator. And if I saw something that caught my
10 attention, at that point I would ask the pilot to
11 position himself the best he can and I would look at it
12 with binoculars.

13 Q. In your experience as a troubleman now, what do
14 you think would be the best way to inspect towers for
15 issues of wear of the cold-end connection points?

16 A. The best way to look at the cold-ends? Ground
17 patrols are good. You can be limited sometimes by
18 terrain. And the drone inspections that they're doing
19 are getting some really good pictures as well.

20 Q. Okay. What about climbing?

21 A. Yeah, the climbing inspections are kind of a
22 different department. So I'm sure that climbing
23 inspections are great as well.

24 MR. NOEL: Okay. Do you guys want a break? I
25 was going to try and finish this up as quick as I could.

26 GRAND JUROR NUMBER FIVE: Finish.

1 GRAND JUROR NUMBER EIGHTEEN: Finish.

2 MR. NOEL: Finish? All right.

3 BY MR. NOEL:

4 Q. You say climbing inspections are a different
5 department?

6 A. Yes. To my knowledge, the tower department does
7 the climbing inspections.

8 Q. So to your knowledge troublemen aren't supposed
9 to climb towers?

10 A. I wouldn't say that. I've climbed lots of
11 towers.

12 Q. To inspect or to repair?

13 A. To repair.

14 Q. To repair. So let me rephrase that. Troublemen
15 are not supposed to climb towers to inspect towers;
16 correct?

17 A. I don't know that.

18 Q. But you've been doing this for a couple of years
19 now?

20 A. Yes.

21 Q. Have you ever climbed a tower to do an
22 inspection?

23 A. I've climbed a tower to get a better picture of
24 something that I saw from the ground.

25 Q. Okay. Do you recall when and what tower?

26 A. It was -- I don't remember the tower. It was on

1 the Bucks Creek Rock Creek Cresta.

2 Q. Have you ever climbed a tower on the
3 Caribou-Palermo?

4 A. Yes, I have.

5 Q. As a troubleman or as a lineman?

6 A. As a lineman.

7 Q. And why did you climb the tower on the
8 Caribou-Palermo?

9 A. We were making repairs. We were changing
10 insulators and also repairing hold-downs.

11 Q. Okay. Do you remember what towers you were on?

12 A. I don't remember specific numbers, no.

13 Q. Do you remember when that occurred?

14 A. Oh, the last time I worked on the
15 Caribou-Palermo was probably April of 2018.

16 Q. As a lineman?

17 A. I was -- as a troubleman I assist the line crew
18 when they need extra help.

19 Q. And what were you doing in April of '18?

20 A. We were changing insulators and also making
21 repairs to the hold-downs.

22 Q. Okay. But you don't remember exactly what
23 towers?

24 A. I don't remember specific numbers, no.

25 Q. Do you remember if it was upstream from Big Bend
26 or downstream?

1 A. Oh, it was upstream from Big Bend for sure,
2 yeah.

3 Q. Okay. Closer to Caribou or closer to Big Bend?

4 A. Closer -- oh, oh, like closer to Belden. Just
5 down river from Belden. So that's closer to Caribou.

6 Q. Okay. Somewhere between Belden and Rock Creek?

7 A. Yes.

8 Q. Do you remember why you were changing out
9 insulators and tie-downs?

10 A. Oh, the insulators were flashed and the
11 tie-downs had come loose.

12 Q. All right. Switching gears again now I want to
13 go through a series of photographs with you starting off
14 with 254, Exhibit 254.

15 Do you see Exhibit 254?

16 A. Yes, I do.

17 Q. Do you see anything in that photograph that
18 would concern you?

19 A. Yes, I do.

20 Q. What's that?

21 A. Oh, this -- the closest C-hook here is well worn
22 into that piece of iron.

23 Q. How can you tell that?

24 A. I can just tell by the picture that it is worn
25 in there. I can see it worn in the metal and there is
26 quite a bit of the hole exposed above the C-hook.

1 Q. When you say "quite a bit of the hole," you're
2 talking about up here at the top?

3 A. Yes.

4 Q. There's not supposed to be that much hole
5 exposed?

6 A. No. That would not be desirable, no.

7 Q. Okay. Is that something you can see from a
8 helicopter?

9 A. In my opinion, that's not something I could see
10 from a helicopter.

11 Q. Okay. Let's move on to 255. Do you see
12 anything wrong in that photograph?

13 A. I would say again it looks like -- it doesn't
14 look as extreme as 254, but it does look like it is worn
15 into the steel again.

16 Q. "It" being what?

17 A. The C-hook.

18 Q. Let's move on to the next one which is actually
19 193. Did they get out of order? There you go.

20 So now you're looking at the photograph marked
21 as Exhibit 193?

22 A. Yes.

23 Q. And do you see an issue in that photograph?

24 A. It does. The C-hook does look worn into the
25 plate.

26 Q. How can you tell that?

1 A. If you look at the bottom of the C-hook, it's
2 lower than where the circle in the plate -- the bottom of
3 the circle in the plate should be.

4 Q. Okay. So does the amount of space at the top --
5 between the top of the C-hook and the top of the hole --
6 is that significant in your experience?

7 A. I would pay attention to that amount of space,
8 but that does vary sometimes. What I'm more looking at
9 is the C-hook. Like how far it is seated into that hole?

10 I've looked at lots of these towers since the
11 investigation started. And when I look at a C-hook from
12 back -- from the back of the C-hook -- not the open side
13 of the C-Hook. I can't -- for some reason I can't see it
14 from the open side of the C-hook. But from the back of
15 the C-hook from the ground, I could see that the C-hook
16 was seated deeper in the eye than it would have been
17 originally. The reason that -- the space on top of it,
18 that would, you know, be something to look at.

19 But it does vary. Different generations --
20 well, different generations of C-hooks are built
21 differently. Some of them are -- you know, the newer
22 ones are thicker, they're beefier, and they take up more
23 of the eye in the plate.

24 Lots of those towers have multiple coats of
25 paint. And that actually takes up some space as well on
26 some of the towers. T when I can get a view of the back

1 of the C-hook, that's when I get my best view if it's
2 been wearing into the plate.

3 Q. Okay. Now, you mentioned that you've seen lots
4 of this during the investigation. What investigation are
5 you talking about?

6 A. The investigation over the Camp Fire.

7 Q. Okay. So have you been out reinspecting the
8 Caribou-Palermo since the Camp Fire?

9 A. No, I have not. I -- just for access and
10 knowing where the towers are I have taken people out
11 there.

12 Q. Okay. But you yourself weren't inspecting them?

13 A. No.

14 Q. All right. Let's move on to 183. It should be
15 2160. There you go.

16 Looking at the photograph marked 183, again do
17 you see anything that would be a problem?

18 A. It looks worn in. It doesn't look as severe as
19 some of these other ones, but it does look like it has an
20 oblong hole a little bit.

21 Q. Okay. And would that be something that would be
22 visible from a helicopter?

23 A. In my opinion, that kind of detail is not -- it
24 would have to be perfect conditions. That kind of detail
25 wouldn't catch my eye in a helicopter.

26 Q. Okay. Next is number 256.

1 A. Is that the number of the photo?
2 Q. The number on the tag.
3 A. Oh, okay.
4 Q. Should be right there.
5 Do you see the photograph marked as Exhibit 256?
6 A. Yes.
7 Q. And anything in this photograph that would catch
8 your attention?
9 A. No. I mean, I can't -- I can't -- that's not
10 something I'm going to catch from a helicopter.
11 Q. Okay.
12 A. You know.
13 Q. Moving on now we're at 184. Do you have 184?
14 A. Yes, I do.
15 Q. Anything on that photograph that would catch
16 your attention from a helicopter?
17 A. No, not that I can -- not that I can see.
18 Q. Looking at the photograph is there anything that
19 catches your attention?
20 A. Yes. It also looks worn into the steel.
21 Q. And when you say "it, what --
22 A. The C-hook.
23 Q. The C-hook?
24 A. Yes.
25 Q. All right. Let's move on to Exhibit Number 37.
26 A. Oh.

1 Q. Exhibit 37 is easy to find because it's the only
2 one on photo paper.

3 Are you looking at Exhibit 37?

4 A. Yes, I am.

5 Q. Anything that you see on that photograph that
6 would concern you?

7 A. I can't tell on this one. It looks like it
8 might be -- the C-hook might be worn into the plate a
9 little bit, but I can't tell.

10 Q. One other thing unusual. This plate -- have you
11 ever seen that before?

12 A. No, I cannot say that I have.

13 Q. Okay. Anything about the string -- the
14 insulator string that is unusual?

15 A. No, not that I see.

16 Q. Let's move on to 257. Do you have Exhibit
17 Number 257?

18 A. Yes, I do.

19 Q. This is a photograph marked "Tower 243."

20 A. Yes.

21 Q. Anything that you see in that photograph that
22 would concern you?

23 A. Yes. This one is very concerning. It's
24 severely worn.

25 Q. What's severely worn?

26 A. The C-hook is severely worn into the plate.

1 Q. Let me -- let's use our Smart Board up here
2 again and tell me what you're talking about.

3 A. So we have the hole -- the round hole here. And
4 you can see that it just continues straight down to not a
5 lot of steel left.

6 Q. So you're talking about right in here
7 (indicating); right?

8 A. Yes.

9 Q. This hole is -- it's almost like a keyhole
10 shape, isn't it?

11 A. Yes.

12 Q. Is that the way it's supposed to be?

13 A. No.

14 Q. So that is pretty extremely worn?

15 A. Yes.

16 Q. And can you tell what type of tower this is or
17 which phase we're looking at here?

18 A. I would assume this is a middle phase. I can't
19 tell for sure, but I don't see an end of the tower on
20 either side. Some of my assumption would be this is a
21 center phase or maybe a jumper support of some kind.

22 Q. Okay. Is this something that would have been
23 visible from a helicopter?

24 A. No. This is completely on the underside of this
25 beam right here (indicating).

26 MR. NOEL: Okay. Let's save that one. And that

1 will be 257-A.

2 [Exhibit 257-A marked
3 for identification.]

4 BY MR. NOEL:

5 Q. All right. Let's move on to 175. I'm sorry.
6 Those got out of sequence. There's 175.

7 Do you see anything in the photograph marked as
8 175 that would concern you?

9 A. I can't see with enough detail to tell anything
10 on this.

11 Q. Okay. Can you see the connection points for the
12 insulator strings, the jumper strings?

13 A. Yes.

14 Q. Actually, let's back up. I should probably ask
15 you about that. What kind of tower is this?

16 A. That is a transposition power.

17 Q. Okay. And that's different from most of the
18 other towers?

19 A. Yes.

20 Q. And we're talking about the left phase here and
21 the connection point between the insulators, the C-hook,
22 and the tower arm; correct?

23 A. Okay.

24 Q. Do you see anything about that connection point
25 that would raise concerns?

26 A. I can't tell. It looks like there's more air,

1 more space, but the underside is down in the shadow. The
2 top one is up in the sunshine. So I mean, I can't see
3 with enough detail.

4 Q. Right. But there's an awful lot of light
5 showing through that hole, is there not?

6 A. Yes.

7 Q. And that would be something that would be
8 visible from a helicopter, wouldn't it?

9 A. Possibly.

10 Q. Okay. Let's go on to 187. Is there anything in
11 187 that concerns you?

12 A. One eighty-seven makes it look like the other
13 side is worse now, but I can't -- I can't see with enough
14 detail to tell if it's worn. But there is a space with
15 light in there.

16 Q. Okay. Let's go to 188.

17 A. One eighty-eight looks like it could be worn a
18 little bit. It doesn't look too severe to me, but it
19 looks like it could be worn down.

20 Q. Okay. Could that be something that you could
21 see from a helicopter?

22 A. I'm sure it's possible. These pictures look
23 like drone pictures to me. So drone pictures are -- you
24 know, they get quite a bit closer than a helicopter can,
25 but I'm sure that, you know, it could be possible.

26 Q. So when you're up in the helicopter, you have

1 stabilizing binoculars; correct?

2 A. Yes.

3 Q. And you have a camera?

4 A. Yes.

5 Q. An actual camera, not a cellphone; right?

6 A. Yeah, an actual camera.

7 Q. And do you have any type of telephoto lenses or
8 anything to use?

9 A. The camera has a zoom on it. The lenses aren't
10 detachable, but it does zoom.

11 Q. Okay. So you can get much closer --

12 A. Yes.

13 Q. -- then you actually are?

14 Okay. All right. Let's move on to 176. Do you
15 see anything in 176 that concerns you?

16 A. The closest C-hook looks like it could be worn
17 into the steel a little bit.

18 Q. Again, is this something that would be visible
19 from the helicopter?

20 A. Possibly.

21 Q. And other than a helicopter how would you be
22 able to see this?

23 A. This looks like it's taken -- because of how far
24 that hillside is on the other side, I know that is across
25 the canyon. So if I was on a ground patrol, I could be
26 on this side of the hill. You know, get myself up high

1 to where I'm looking straight across at this and get a
2 good view of it.

3 Q. All right. Let's look at 247. Nope. It should
4 be the last one in there, I think. Where did it go?

5 A. I'm not sure.

6 Q. Maybe -- I thought I pulled it. We can use the
7 photograph on the board. We've got the photograph of
8 Exhibit 247 with the exhibit sticker on it signed by the
9 foreperson dated June 25, '19.

10 Anything on the photograph marked as 247 that
11 would catch your attention?

12 A. No, nothing I can see.

13 Q. Okay. Let's move on to 191.

14 A. That -- I have 191. That C-hook does look worn
15 into that steel.

16 Q. And is that something that you could see from
17 the helicopter?

18 A. I don't think so.

19 Q. And let me rephrase that. Is that something
20 that you can see from the helicopter as you do patrols?

21 A. In my opinion, this is not something that I'm
22 going to catch in an air patrol.

23 Q. The way that you're flying; correct?

24 A. The way that -- yeah, the way that air patrols
25 are done.

26 Q. Okay. 192.

1 A. I can't really tell. I mean, it looks like it
2 could possibly be worn in but -- yeah, it looks worn a
3 little bit. There's quite a bit of a hole at the top,
4 but I can't see underneath.

5 Like I said, this -- I don't know why. The
6 opening side of the C-hook I can't see it the way I can
7 see the backside, but it does look worn.

8 Q. Okay. But normally, the backside that you were
9 looking at, that would be the outside of the hole or
10 outside the tower; correct?

11 A. It varies depending on who put the C-hook there.
12 They will go in from either direction. Usually, if it's
13 a helicopter that is bringing you the insulators, then
14 you want, you know, the outside of your C-hook facing out
15 so when the helicopter brings you the insulator, you
16 slide it right on. But, yeah, it can vary.

17 Q. All right. And finally, I believe 185. Do you
18 see anything about that photograph that --

19 A. It looks like it could be worn in a little bit.
20 It doesn't -- there's a lot of steel underneath that
21 C-hook still, but it looks like it could be worn down.

22 Q. Okay. And again, have you ever seen these
23 brackets before?

24 A. I -- I have not noticed those type of brackets
25 specifically.

26 Q. Okay. And I was wrong. There is one more. We

1 have 186. There should be 186 up there someplace.

2 A. I could look at it on the screen.

3 Q. Awe-huh. I left it in there. Sorry.

4 All right. And there's Exhibit 186.

5 A. So it looks like the plate was added. The
6 previous hole is reamed out for sure.

7 Q. When you're talking about the plate, you're
8 talking about this two-bolt bracket that is bolted on the
9 end of the tower arm?

10 A. Yes.

11 Q. And you're talking about the previous hole would
12 be the hole in the arm itself in the background?

13 A. Yes.

14 Q. That hole is not supposed to be that shape?

15 A. No.

16 Q. Which shape is that hole supposed to be?

17 A. It's supposed to be round.

18 Q. All right. And then what about the C-hook
19 itself?

20 A. It looks like a newer style C-hook to me. It's
21 hard to tell. It looks beefier than the older style. I
22 mean, it's discolored, but the C-hook looks fine.

23 MR. NOEL: All right. That's all the questions.

24 MR. FOGG: I have some questions.

25 MR. NOEL: Go ahead.

26 **EXAMINATION**

1 BY MR. FOGG:

2 Q. Mr. (WITNESS #6), I have a couple questions for
3 you. I won't make you go through the whole thing again
4 though, I promise.

5 Exhibit 257; is that a typical perspective you
6 could see from a ground inspection?

7 A. It would vary upon terrain.

8 Q. How would it vary given the terrain?

9 A. Sometimes in the canyon it literally could be
10 just super rocky, super steep. There's also areas where
11 there's lots of brush. So that can dictate where you can
12 stand and look at it. But I think that it would be
13 fairly reasonable to get this view from a ground patrol.

14 Q. Is it fair to say though that the only way to
15 see this cold-end attachment point like 257 on a ground
16 patrol would depend on the terrain around the tower and
17 how well you can get a vantage point of the cold-end
18 attachment plate? Is that fair?

19 A. Yes.

20 Q. Before the Camp Fire in your work with PG&E, had
21 you seen a worn C-hook on a transmission tower?

22 A. I had -- when we change insulators, we install
23 new C-hooks. I had seen C-hooks that were lightly worn.
24 I'd never seen anything with like an obvious groove in
25 it, no.

26 Q. Before the Camp Fire, had you received any

1 training from PG&E about C-hooks wearing out?

2 A. No. I had not -- I had not ever heard of a
3 C-hook failing.

4 Q. Before the Camp Fire, did you know that a C-hook
5 could fail?

6 A. No, I did not.

7 Q. And before -- in the pictures you've seen today
8 you mentioned a couple of times various things in the
9 pictures that caught your attention; is that correct?

10 A. Yes, that's correct.

11 Q. Before the Camp Fire, would these pictures have
12 caught your attention?

13 A. Yes.

14 MR. FOGG: Okay. I don't have any other
15 questions.

16 Do the grand jurors have any questions for
17 Mr. (WITNESS #6)?

18 So, Mr. (WITNESS #6), we'll need a minute to
19 gather the questions and take a look at them and I'll ask
20 them.

21 THE WITNESS: Would it be all right if I go get
22 a drink real quick? Or is it going to be quick?

23 MR. NOEL: It should be quick.

24 THE WITNESS: Okay.

25 MR. NOEL: It should be quick.

26 [Counsel conferring off the record.]

1 MR. NOEL: All right. We have a few questions
2 from the jurors for you. It's just like questions we
3 asked you, only better.

4 **FURTHER EXAMINATION**

5 BY MR. NOEL:

6 Q. Did you receive any official training on how to
7 determine the priority of a repair; for instance, "A"
8 now, "B" 90 dates, or "E" one year?

9 A. I did receive some training on, you know, how
10 we're going to categorize issues. It's the training that
11 you receive. The examples are very obvious. So
12 extremely broken -- a broken pole laying in the road, you
13 know, a tower down, those are obvious "A" tags. There
14 was some -- as I remember, there was some good examples,
15 but for the most part you're giving -- you know, giving
16 your opinion on how long something is going to last is
17 exactly that. It's just your opinion.

18 And if -- the more experience you have, the more
19 you understand, like, how long something will last even
20 though it could look, you know, fairly damaged. But it's
21 just something that comes with experience. It's
22 something that you're going to take into consideration
23 the circumstances.

24 If it's something that is going to fall down
25 across a major highway, then it's going -- you know, it's
26 going to get a pretty good priority to get changed out

1 quickly. If it's something that has a large consequence,
2 it's going to get scrutinized more and get a quicker fix
3 date.

4 But for the most part, you're getting -- or
5 you're determining the time factor by your experience and
6 just all the surrounding conditions that you can kind of
7 put together.

8 Q. Just a couple follow-ups from me on that. Did
9 any of your training include how to determine how long
10 it's going to go?

11 A. I can't say I was trained to determine that.
12 There are conditions that, you know, if you have to use a
13 snow cat to get there, if you have to use a helicopter to
14 get there, you know, that could determine, oh, kind of
15 the timeframe that you would do it in. Just -- oh, just
16 overall conditions. You just take a lot of things into
17 consideration.

18 Q. Okay. Like we still have 257 up here on the
19 board this photograph. We're talking at this wear, this
20 keyhole in the connection eye in the C-hook. Any
21 training at all in how long it takes for that weld --
22 that metal to wear?

23 A. No.

24 Q. Since you've been a troubleman, have you
25 received anything from PG&E indicating how long it takes
26 metal to wear like that?

1 A. No.

2 Q. And have you received anything at all with
3 regards to the age of towers and the life expectancy of
4 towers?

5 A. No, I haven't.

6 Q. Okay. All right. When done with PG&E training,
7 are you required to take a test?

8 A. Some training, yes. Some training it's -- it's
9 a written test or on the computer. Some training it's
10 actually a practical test. Not all of them but most of
11 them there's some sort of a test.

12 Q. Okay. To become a troubleman did you have a
13 test?

14 A. I didn't have a specific test. You have to be a
15 journeyman lineman for two years and there are numerous
16 classes that you have to -- every training that I had
17 there was -- well, for instance, the switching training I
18 had, there's testing at the end of those. The climbing
19 classes, those are all practical. You're climbing during
20 the classes and stuff like that.

21 Q. Okay. And do you receive a certificate at the
22 end of the training?

23 A. You do for those. I didn't receive a
24 certificate for becoming a troubleman, but I did get
25 certificates for my trainings, yes.

26 Q. And was there -- again, no specific training on

1 how to do inspections?

2 A. Not other than the Electric Transmission
3 Preventative Maintenance Manuel.

4 Q. As a sedgeway are you required to read the
5 manual completely?

6 A. No. I used to carry my manual with me. I carry
7 multiple manuals with me and refer to them when I have
8 questions. For the most part for me when it comes to
9 actual rules and regulations, you know, I learned those
10 during the class and from my supervisor in that. When I
11 come across stuff that I'm unsure of in the field, I
12 contact other troublemen or foremen and bounce ideas off
13 of them.

14 Q. During your training, does PG&E go over the
15 policy manuals completely?

16 A. Not completely.

17 Q. Do you know the size of the hole where the
18 C-hook goes through?

19 A. I do not know the exact dimensions.

20 Q. Do you know the diameter of the C-hook?

21 A. No, I don't.

22 Q. That wasn't part of your training?

23 A. No.

24 Q. On a non-routine inspection do you inspect the
25 entire line or just the area where the error occurred?

26 A. That varies. If it's -- if you have a good day

1 just weather-wise and you look at the -- you start in the
2 target area and you don't find anything, then oftentimes
3 you will look at the whole circuit.

4 There are some circuits that -- well, you'd
5 still look at the whole circuit if you had time. There
6 are some circuits that take hours and hours to look at.
7 So there are times the weather permitting when you're
8 only going to look at your target area and then you might
9 get blown out or whatever. And there are other times
10 when you will look at the whole circuit.

11 Q. Did you receive any training for size, age,
12 metal fatigue, characteristics, structural hardware, and
13 attachments to the towers?

14 A. No.

15 Q. During air inspections do you routinely look for
16 out-of-ordinary wear or hanging hardware in tower arms
17 and braces?

18 A. During an air inspection as I'm finishing the
19 tower we're leaving, when we're approaching the next
20 tower, I am looking for anything obvious, anything that
21 might be hanging down, any loose steel or something like
22 that. But for the most part, on air inspections I am
23 mostly looking at conductors and insulators.

24 Q. And for insulators that's flashing; correct?

25 A. Flashing or broken insulators.

26 Q. Not the connection points?

1 A. No.

2 Q. Does the list of previously written tickets
3 indicate whether the issue has actually been fixed?

4 A. Most of the time if it's on the prior sheet, it
5 has not been completed. There are circumstances
6 sometimes where the prior might be listed and the work
7 has already been done. But for the most part, if you
8 receive the priors, then that particular item hasn't been
9 worked yet.

10 MR. NOEL: Okay. Anything further?

11 I don't think we have anything further for you
12 today. Madam Foreperson is going to have an admonition
13 for you.

14 GRAND JURY FOREPERSON: Mr. (WITNESS #6), you
15 are admonished not to discuss or disclose at any time
16 outside of this jury room the questions that have been
17 asked of you or your answers until authorized by this
18 grand jury or the Court. A violation of these
19 instructions on your part may be the basis for a charge
20 against you of contempt of court. This does not preclude
21 you from discussing your legal rights with your own
22 attorney.

23 Mr. (WITNESS #6), what I have just said is a
24 warning not to discuss this case with anyone except the
25 Court, your lawyer, or the district attorney.

26 Do you understand?

1 THE WITNESS: Yes, I do.

2 GRAND JURY FOREPERSON: Okay. Thank you.

3 MR. NOEL: You're free to go. And thank you
4 very much, Sir.

5 THE WITNESS: All right. Thank you.

6

7 (PROCEEDINGS OMITTED.)

8

9 [Whereupon the luncheon recess is taken
10 from 11:38 a.m. until 1:38 p.m.]

11 --oOo--

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1 AFTERNOON SESSION

2 JULY 16, 2019

3
4 (ROLLCALL OMITTED.)

5
6 MR. NOEL: Are we prepared for this afternoon?

7 GRAND JURY FOREPERSON: We are prepared. All
8 members of the jury are present and ready to go.

9 MR. NOEL: Thank you.

10 Next witness will be Investigator Nick Moore.

11 GRAND JURY FOREPERSON: Mr. Moore, before you
12 have a seat, would you mind raising your right hand to be
13 sworn in, please.

14 Mr. Moore, do you solemnly swear that the
15 evidence you shall give in the matter pending before the
16 grand jury shall be the truth, the whole truth, and
17 nothing but the truth so help you God?

18 THE WITNESS: I do.

19 GRAND JURY FOREPERSON: Thank you. Have a seat,
20 please.

21 **EXAMINATION**

22 BY MR. NOEL:

23 Q. For the record, could you please state your name
24 spelling your last name.

25 A. Nicholas Moore, M-o-o-r-e.

26 Q. By whom are you employed?

1 A. I am employed by the Butte County District
2 Attorney's office as an investigator.

3 Q. And what is an investigator?

4 A. An investigator is a peace officer in the State
5 of California.

6 Q. What are your duties as an investigator?

7 A. I'm currently assigned as the environmental
8 investigator specifically investigating environmental
9 crimes. And at the moment I have been tasked with the
10 investigation of the Camp Fire and PG&E's involvement.

11 Q. How long have you been an investigator with the
12 Butte County District Attorney's Office?

13 A. Been employed full-time for approximately
14 14 months and worked two years prior to that as an extra
15 help investigator.

16 Q. How long have you been a peace officer?

17 A. Been a peace officer since 2004.

18 Q. Prior to coming to the Butte County District
19 Attorney's Office, where did you work?

20 A. Prior to that I worked in the state of Colorado
21 as a deputy sheriff in Routt County for two and a half
22 years and then I moved to the Steamboat Springs Police
23 Department in Routt County where I worked for
24 approximately another eight and a half years before
25 moving to California.

26 Q. You said your current assignment is the Camp

1 Fire?

2 A. That is correct.

3 Q. Describe your duties as an investigator on the
4 Camp Fire.

5 A. As a lead investigator in the Camp Fire I have
6 been helping to coordinate a multi-agency investigation
7 into the cause and origin of the fire and various
8 responsibilities of multiple agencies both state, local,
9 and federal into the matter understanding their complex
10 dynamics of both the regulatory and the legal system and
11 how it may apply to PG&E's involvement and maintenance of
12 their electric transmission lines.

13 Q. As an investigator do you also review documents
14 received from PG&E?

15 A. I do.

16 Q. And can you explain that process for us.

17 A. Over the last several months we have made a
18 series of data requests in cooperation with PG&E's
19 attorneys as well as the grand jury to obtain documents
20 on a variety of topics. In particular of late we have
21 been reviewing the documents that pertain to maintenance,
22 the schematics, and overall understanding of the
23 different components in the electric transmission system.

24 Q. Pull the microphone over in front so it's a
25 little easier to hear you.

26 How are those documents stored?

1 A. We receive a hard drive from PG&E that contains
2 several gigabytes, if not terabytes of data. We receive
3 multiple downloads of information which we refer to as
4 data dumps. Those data dumps are received here at the
5 court in a sealed envelope with an encrypted hard drive.
6 Those hard drives are then taken and downloaded into
7 servers both here and at the attorney general's office.

8 They are all Bates stamped by PG&E so they have
9 a number that correlates to each and every document. And
10 then through the use of the attorney general's software
11 we are able to search those documents for different terms
12 and things that may be found on those documents and begin
13 reviewing each of those documents.

14 Q. I want to go back to the Bates stamp. What is a
15 Bates stamp?

16 A. A Bates stamp is a number that is provided by
17 PG&E to reflect the document's authenticity. There's
18 only one correlating Bates stamp per document. And so
19 it's a way to track each of those documents.

20 Q. We've gone over this. We've heard this before
21 but never had an explanation for it. The number that is
22 generally somewhere on the margin of every page
23 "PG&E-Camp-CF-000000001," is that what you're referring
24 to as the Bates stamp?

25 A. Yes.

26 Q. And that is something that PG&E puts on the

1 documents before they turn them over to us?

2 A. That is correct.

3 Q. Okay. We've seen several different variations
4 "PGE-Camp-CF, PGE-Camp-BC, PGE-Camp-GJ." Do you know the
5 difference?

6 A. I don't know all of the exact designators. I
7 know for sure those that are marked "GJ" refer to
8 subpoenas SDTs from the grand jury itself.

9 We received documents in a variety of different
10 configurations both through formal requests through our
11 office, and I believe each of those designators reflect a
12 different portion of time in the investigation.

13 Q. Now, as part of your duties as an investigator
14 were you asked to mine the documents provided by PG&E for
15 documents pertaining to the age of the Caribou-Palermo
16 line?

17 A. Yes, I was.

18 Q. What were you able to find?

19 A. In both my review of those documents and the
20 information provided by PG&E and that of my fellow
21 investigative team, we were able to determine that the
22 Caribou-Palermo line was built circa 1920. So
23 approximately in the 1920 date range is when construction
24 was ensuing and these towers were designed and put
25 together.

26 Q. What kind of documents did you locate in the

1 documents received from PG&E indicating that this tower
2 or these towers were built around 1921?

3 A. We received legal letters from their attorneys
4 outlining the request and the production of the data and
5 then kind of a synopsis of each of those data dumps. And
6 in particular, we received different schematics that had
7 different dates on them. There are different material
8 lists and things of that nature that date back to that
9 timeframe.

10 Q. You have in front of you what is marked as
11 People's Exhibit 259. And that is also being displayed
12 on the big board.

13 Do you recognize Exhibit 259?

14 A. Yes, I do.

15 Q. What is Exhibit 259?

16 A. Exhibit 259 is a Bates stamped PG&E-Camp-CF and
17 the last four digits are 1493. It is a schematic. In
18 particular, it has kind of in the center -- lower center
19 right a picture of a suspension hook which is used to
20 hold the insulator string onto the towers. And it gives
21 a dimension of that suspension hook as well as a part
22 number.

23 Q. Okay. We have a big board up here and you can
24 use it if you want to if you want to use the pen to
25 circle and tell us what you're talking about.

26 A. This particular --

1 Q. Oops. It takes a minute to kick in. There we
2 go.

3 A. This particular image right here (indicating) is
4 that of a suspension hook. I will actually refer to --

5 Do you want to take it off the marker?

6 Q. Okay. That's not going to let us blow it up.

7 A. I'll just go back to the piece of paper here.
8 If you look at the image itself, it's a little too blurry
9 to read.

10 There's a series of numbers on the document
11 you've been provided. If you look at this particular
12 portion of the hook and the corresponding number, there's
13 a measurement of 15/16ths indicating the diameter of the
14 hook at that portion. And there's also several other
15 diameters including the gap between the hook which is
16 15/16ths as well. And the hook from right to left is
17 approximately 2 and 13/16ths in measurement.

18 Q. So at its apex here this hook is 15/16ths of an
19 inch?

20 A. That's correct.

21 Q. Okay. All right. Let's move on to 260. It
22 needs to be rotated. There you go.

23 Do you recognize Exhibit 260?

24 A. I do. Two sixty is Bates stamped
25 PGE-CampFire-CF -- excuse me. Camp-CF-1342. It is a
26 schematic of the support arm for a transposition tower

1 with a snow-bearing load.

2 Of particularly note on it you'll see there are
3 dimensions for the hole size of the drilled hole in the
4 suspension arm where the hook is supposed to suspend the
5 insulator string.

6 Q. Let's back up for just a second. Have you been
7 up to the towers?

8 A. Yes, I have.

9 Q. Have you investigated -- physically gone up and
10 investigated the Caribou-Palermo towers?

11 A. I have. I've done a variety of different visits
12 to the area. They've included both ground review of
13 different towers on aerial inspections of the towers from
14 different vantage points trying to locate towers that
15 were similar to the tower that failed; the 27/222. And
16 these are -- these are the schematics for those type of
17 towers which were referred to as transposition towers.

18 Q. Okay. And so you're familiar with what the
19 transposition towers look like?

20 A. Yes, I am.

21 Q. And PG&E provided pursuant to a data request the
22 schematics for those towers?

23 A. That's correct.

24 Q. Okay. So 260 is actually schematics for the
25 tower?

26 A. That's correct.

1 Q. All right. Before we get into it, do you know
2 what Great Western Power Company was?

3 A. Great Western Power Company was the original
4 company that constructed the Caribou-Palermo line. They
5 drew up the plans and executed the actual construction of
6 the Caribou-Palermo electric transmission line.

7 Q. And what is the date for this schematic for the
8 transposition tower?

9 A. It's dated 2/2 of 1921.

10 Q. Okay. Now, you started talking about the holes.
11 Tell us about what you can ascertain about the holes from
12 the schematics.

13 A. If you look at the center of the drawing -- and
14 I'll step up here real quickly.

15 Q. Here we go.

16 A. In particular, this schematic here, the
17 schematic with the crossarm with the drilled hole for the
18 eye hook -- it's the C-hook or J-hook or suspension hook
19 depending on the terminology used mounted onto the tower
20 itself to hold the insulator string on the jumper line.

21 Q. And is there anything in the schematics that
22 indicate how big that hole was designed to be?

23 A. Yes. There's a measurement of 1 and 1/8th inch.

24 Q. So we know from 259 that the hook was designed
25 to be 15/16ths of an inch wide at its apex. And the
26 holes are designed to be 1 and 1/8th inch?

1 A. That's correct.

2 Q. How's your math?

3 A. Pretty good.

4 Q. Well, what would 1 and 1/8th inch minus 15/16th
5 of an inch be?

6 A. 3/16ths of an inch.

7 Q. All right. So armed with that knowledge did you
8 venture into the Feather River Canyon?

9 A. I did. I used coordinates that were provided on
10 all of the aerial and ground inspection forms that we
11 received from PG&E. And each of those forms listed the
12 towers with their GPS coordinates. Using Google Earth I
13 was able to insert those GPS coordinates into the mapping
14 system and pin the locations of those various towers.

15 I then contacted our pilot Jake Hancock who is a
16 fellow investigator. And we coordinated an air flight
17 over the Feather River Canyon particularly looking at a
18 multitude of different transposition towers.

19 On the day that we went out, which was
20 January 31st of this year, we flew over tower 24/199,
21 tower 27/222, tower 32/260, and tower 35/289. And I took
22 various photographs of those towers.

23 Q. Okay. So let's back up because that was a lot.
24 You were able to locate GPS locations for certain towers;
25 correct?

26 A. That's correct.

1 Q. And what types of towers did you choose for the
2 GPS locations?

3 A. I specifically wanted to focus on transposition
4 towers which were the same configuration as tower 27/222.
5 The reason for that is the transposition towers have
6 different hardware. They have what is called a jumper
7 spring which transposes the line from one phase, for
8 example, the right phase of the line. There are three
9 lines coming in. And it moves the current to a different
10 phase to help maintain balance on the electrical -- the
11 electric physics of the current as it runs down the line.
12 You have it keep it balanced in order to have a steady
13 flow of energy down the line.

14 Q. Now, you obtained these GPS coordinates from
15 PG&E documents?

16 A. That's correct.

17 Q. Would those have been the transmission object
18 lists that are attached to all of the annual reports?

19 A. That's correct.

20 Q. Both the detailed ground inspection reports and
21 the aerial patrols?

22 A. Yes.

23 Q. Okay. So you used PG&E's own coordinates to
24 plot out a map of the transposition towers?

25 A. Yes, that's correct.

26 Q. In front of you you have 261. It's up on the

1 board. Do you recognize Exhibit 261?

2 A. Yes, I do.

3 Q. And what is Exhibit 261?

4 A. Two sixty-one is a map which I used to plot
5 those coordinates along the Feather River Canyon.
6 Whenever we do aerial observations, it's very helpful to
7 know where we're going. So this is a map that I used to
8 kind of lay out our flight path. And each of those
9 yellow pins represents the coordinates that were on the
10 information that we received from PG&E and pinpoint each
11 of the locations of the towers throughout the canyon.

12 Q. And you said you flew the line?

13 A. That's correct.

14 Q. On January 31st?

15 A. Yes.

16 Q. Are you a pilot?

17 A. I am not.

18 Q. Can you fly?

19 A. I flew in the helicopter next to the pilot.

20 Q. You need the helicopter and you need a pilot;
21 right?

22 A. That's correct.

23 Q. So where did you get the helicopter?

24 A. The helicopter is owned by the sheriff's office,
25 and it's used by multiple agencies here in Butte County.
26 We have an agreement that allows us to use that

1 helicopter. And one of the pilots happens to be an
2 investigator in our office as well.

3 Q. Next question is where did you find a pilot?

4 A. Jake Hancock is a fellow investigator. I
5 coordinated the flight with him, and we went on out the
6 31st.

7 Q. Describe the weather conditions in the 31st.
8 January 31st.

9 A. January 31st was a pretty cool morning, clear,
10 pretty ideal conditions. And we try to leave at times in
11 the day when the light in the canyon is good to be able
12 to see. If you go too early, it's very dark in the
13 canyon. And depending on the weather conditions of the
14 day, wind can be a factor in flight. Knowing that we
15 wanted to take detailed photographs we tried to pick the
16 best time of day where we could get into the area and
17 fly.

18 There was also -- I believe there was a forecast
19 of some weather coming in that afternoon, which also kind
20 of helped determine what time we flew. So we try to fly
21 within all the safe parameters to make sure that we have
22 a safe flight and follow all the FAA rules in doing so.

23 Q. What were the wind conditions?

24 A. It was moderately windy on the day in question.

25 Q. Have you flown in the canyon before?

26 A. Multiple times.

1 Q. Is there general -- in your experience general
2 wind conditions in the canyon?

3 A. Yes. There is what's called the Jarbo Gap
4 effect. What typically happens in steep terrain like
5 this is you have high mountain valleys like Lake Almanor
6 and depending on the day and the weather inclementation
7 you have -- cold air will move down the valley, and it
8 funnels in those canyons and is closed in by the
9 topography of the mountains. That can increase the wind
10 speeds.

11 And in effect this region is known for the Jarbo
12 Gap winds which are -- what was experienced on the
13 morning of November 8th.

14 Q. I'm just talking about your personal experience
15 with the wind.

16 A. I'm not sure I understand.

17 Q. Is it always windy when you fly up there?

18 A. It's not always windy, but it can typically be
19 very windy. Whether you're standing on the ground or up
20 in the air there, it's a high-wind area. So when you're
21 on top of the ridge tops or down in the valley, it can
22 play a big difference in whether it's calm or you're up
23 in the top of a windy peak and there's a constant wind.

24 Q. And on -- what was the weather or the wind like
25 on January 31st compared to other occasions you've been
26 up there?

1 A. I would say a pretty average day for the wind.
2 The winds were forecasted to pick up as the day and the
3 storm increased, but we managed to beat all of the
4 elements. It was a little bit -- a little bit windy at
5 certain times of the day in different areas of the
6 canyon.

7 As that air is forced down the canyon, it
8 bounces off the canyon walls. And so when you're in a
9 helicopter, again safety and trying to get the picture in
10 mind you have to be very delicate in how you position the
11 aircraft.

12 And so there were times where our pilot did
13 struggle to keep the helicopter in the right place to
14 take a photograph. However, for the most part it was a
15 very safe and normal flight.

16 Q. What was the purpose of your photography that
17 day?

18 A. The purpose was to document the condition of the
19 various transposition towers. In investigating this
20 particular incident in order to make a fair and impartial
21 investigation I believe that you need to compare apples
22 to apples. For that reason, transposition towers were
23 chosen. And in order to get a good sample of whether
24 this was a single incident involving an equipment failure
25 or to show a pattern of equipment, we had to go out and
26 document what the different states of the transposition

1 towers were throughout the canyon.

2 Q. All right. So we're going to go through a
3 series of photographs starting with 262.

4 Do you have 262 in front of you?

5 A. I do.

6 Q. And do you recognize Exhibit 262?

7 A. I do. Exhibit 262 is a photograph I took of
8 tower 24/199.

9 Q. And this is one of the transposition towers?

10 A. That is correct.

11 Q. And you took this from what?

12 A. I took this from the helicopter.

13 Q. Okay. Move on to 263. Or no.

14 A. Two eighty-three.

15 Q. Two eighty-three. And ignore the little yellow
16 tag that says "Exhibit 223." We just remarked it.

17 A. Exhibit 283 is a closer-up photograph a little
18 lower in elevation but particularly focused in on the
19 arms, the suspension arms of the tower and the jumper
20 insulators and the hoods holding those insulator strings
21 to the tower.

22 Q. Now, focusing in on this picture right here, how
23 close to the tower were you to take this picture?

24 A. If I had to guess, I would say probably within
25 150 feet of the tower to 200 feet. Part of -- because of
26 the windy conditions, the pilot focuses on flying the

1 airplane and I'm looking through a camera and trying to
2 focus in on the different parts so . . .

3 Q. Now, that's where I want to go with this. What
4 kind of camera are you using?

5 A. I use a digital Cannon \$500 Costco camera.

6 Q. Any special equipment on that camera?

7 A. I have a telephoto lens that comes with two
8 lenses. Kind of a standard set. In this particular case
9 I used the stronger of the two lenses.

10 Q. Okay. So you're sitting probably 100 to 150
11 feet off the tower with a camera and photo lens and
12 taking these photographs?

13 A. That's correct.

14 Q. Can you stand up and show us the significance of
15 this photograph.

16 A. So as you are looking down canyon, this is up
17 canyon on the right side. The terminology that's used is
18 right phase and left phase of the -- of the arms on the
19 suspension towers or the transposition towers.

20 So this would be the left phase insulator string
21 on the jumper. There is a bolted-on bracket, which if we
22 were to go back to the schematics on the second image
23 that we showed, you will see that the original design did
24 not have these bolt-on brackets on them. They just
25 showed a straight arm with the hole drilled into them.

26 Q. Now, let's stop right there real quick. In your

1 perusal of the records -- the age-of-tower records from
2 PG&E, have you located any records regarding those
3 bolt-on brackets?

4 A. To date I have not. As I continue to
5 investigate, I continue to find places where we may look.

6 Q. Pointing out a good thing. You're referring to
7 this as the left phase and this is the right phase.
8 Describe it for the record as you're --

9 A. So the left phase would be the insulator string
10 on the lower right corner of the image and on the kind of
11 upper center it would be -- that would be the right phase
12 and this would be the left phase.

13 Q. So what exactly are we looking for when you're
14 taking this photograph?

15 A. Some of what I'm looking for is this exact
16 attachment point here.

17 Q. Yep. We can do it right here.

18 A. This image is a little hard to see. I've got a
19 couple of other pictures that we'll see in a moment. But
20 in particularly the focus is right here on the hanger
21 plate and the suspension hook in this (indicating) area.

22 Based on the dimensions that were provided in
23 this schematic and that 3/16ths size, I'm just using that
24 information to determine how much wear there potentially
25 could be on the hanger plate and in the hook.

26 Q. So correct me if I'm wrong, you're looking at

1 daylight between the top of the hook and the top of the
2 hole?

3 A. That's correct. A lot of factors. I'm looking
4 at the shape of a hook and the hole. I'm looking at the
5 distance between the top of the hole and the top of the
6 hook. You can depending on the angle look at where that
7 hook seems to set on a hanger plate whether it seems to
8 be lower down or higher up.

9 Q. Prior to November 2018, did you ever see a
10 suspension hook or a transposition tower arm?

11 A. I'm sure I had driven by them unknowingly many
12 times, but I had never drawn my attention to them.

13 Q. Have you ever had any training in inspecting
14 transmission lines?

15 A. No, I have not.

16 Q. Have you ever inspected a transmission line
17 before?

18 A. Not until this investigation have I begun to
19 understand both the engineering and the design concepts
20 behind the electrical transmission grid and the function
21 of the towers and the different components on it.

22 Q. So you looked at the schematics for the tower,
23 got a helicopter and a pilot, and went out looking at the
24 hooks and the holes?

25 A. That's correct.

26 Q. And found space?

1 A. Yeah. Based on the different towers that we
2 looked at, we were able to make a fairly educated guess
3 that if we were to go and get those hooks as an example,
4 that we were very likely going to find wear similar to
5 what we had observed in the malfunctioning components of
6 tower 27/222.

7 Q. So prior to this had you actually seen the
8 components that were taken off the 27/222 under the
9 supervision of Captain Tom Kluge?

10 A. I reviewed both photographs and the actual
11 physical evidence.

12 Q. All right. Let's move on to 263.

13 A. Exhibit 263 is a photograph of tower 260.
14 Excuse me. 32/260. This particular tower sits in the
15 bottom of the canyon approximately 75 yards upstream or
16 uphill from the Feather River Canyon, the river itself,
17 but it's very well protected down at the base of the
18 canyon.

19 Q. And 260 is again a transposition tower?

20 A. That's correct.

21 Q. And this photograph was taken when?

22 A. On the 31st of January 2019.

23 Q. And how did you take this photograph?

24 A. Via helicopter.

25 Q. Let's go to 264. Do you recognize 264?

26 A. I do.

1 Q. What is 264?

2 A. Two sixty-four is a close-up photograph of the
3 suspension arms and jumper insulator strings on tower
4 32/260.

5 Q. How did you take this photograph?

6 A. I took this photograph with the helicopter as
7 well.

8 Q. How far from the tower were you?

9 A. About 100 feet directly across from the tower.

10 Q. And using what kind of camera equipment?

11 A. The same Canon digital camera.

12 Q. So were there any obstructions that got in your
13 way of taking photographs of this tower?

14 A. This is kind of a tight area in the canyon, and
15 the wind does -- just upstream there is a little bit of a
16 formation in the rocks. So the wind does kind of buckle
17 around there and swirl a bit. So this was a difficult
18 position for the pilot to get into and maintain the
19 aircraft safely for photographs. However, we were able
20 to take multiple pictures safely from that vantage point.

21 Q. When you said the 32/260 was very well
22 protected, protected from what?

23 A. Because it sits at the bottom of the canyon, the
24 winds can be significantly less as well as the topography
25 of that particular location. With the upstream
26 topography it formed kind of a leeward side of the wind

1 coming down the canyon where this particular tower sits.
2 So it tends to deflect the wind away from the tower.

3 The other image that you saw of tower 24/199 and
4 tower 27/222 -- and later on you'll see photographs of
5 tower 35/281. Those are all in the ridge tops so they're
6 much more exposed to the wind and there's not a lot of
7 shelter for them.

8 And those other towers are also very near
9 confluences of different canyons within the Feather River
10 Canyon. So there is typically a convergence of wind in
11 those areas.

12 Q. So you can step up to the big board. And I've
13 got it all set up for you to zoom and everything.

14 Describe the significant areas of this
15 photograph.

16 A. In particular, we're looking here at the
17 curve -- excuse me, the curve in the hole and the support
18 arm. I'm looking at how does that particular hook sit
19 within that support arm.

20 In this case, there's not a lot of daylight but
21 still has daylight that you can see through. And from a
22 different angle this is kind of the inside of the arm.
23 From the outside of the arm is a little easier to see
24 just how much space sits between the two.

25 Q. So when you're talking about the inside of the
26 arm, you're talking about the right phase which basically

1 goes through the center of the photograph and ends with
2 the hook in the hole on the right-hand center of the
3 photograph; right?

4 A. That's correct.

5 Q. And when you're talking about the outside,
6 you're talking about the left phase which is in the lower
7 left of the -- of the photograph?

8 A. That's correct. And the other significance of
9 this particular photograph is that you see that there are
10 not bolt-on brackets. This indicates to me that this is
11 some of the -- both the original suspension arm from the
12 tower and, without knowing any of the maintenance history
13 of that particular tower, I do understand through my
14 conversations with various linemen and troublemen that
15 these brown insulator bell strings are very similar to
16 the original era equipment that was used on these towers.

17 MR. NOEL: Again, remember the admonition on
18 hearsay. And I will leave it at that.

19 BY MR. NOEL:

20 Q. All right. On to photograph number 265.

21 A. This is a photograph of tower 35/281.

22 Q. And when was this photograph taken?

23 A. This photograph was taken January 31st of 2019.

24 Q. Anything around 35/281 that obscured the tower
25 or made it difficult for you to photograph this tower?

26 A. This tower sits just below the road at the top

1 of the canyon. It's a fairly open and easy location to
2 get to. It is at the confluences of two canyons. But as
3 far as approach from the aircraft, it was a very simple
4 approach.

5 Q. No trees growing up? No rocks? No cliff faces?

6 A. Nothing that obscured my vision from this.

7 Q. Going on to 266, do you recognize 266?

8 A. I do. This is also a -- this is a photograph of
9 the right and left phase suspension arms and insulator
10 string. On the center right side of the image is the
11 right phase insulators and then the left side of the
12 center is the left phase insulator string.

13 Q. Okay. What do you see as significant in this
14 photograph?

15 A. Particularly looking at the right phase eye
16 hook, you can see a lot of daylight and you can see the
17 hill right here in that photograph. And this is just
18 like a clear straight image. And you're able to zoom in
19 with a lot of clarity. These images are very crystal
20 clear and not as grainy as they are in the pdf format
21 here.

22 Q. Okay. Going on to 267.

23 A. Exhibit 267 is a close-up of the left phase of
24 the tower and the insulator string hook and the eyelet
25 where it is suspended from on the suspension arm. If
26 you'll take a look at that picture, the significance

1 there is again keeping in mind the schematics that this
2 hole is 1/18ths inch in diameter and the hook is
3 15/16ths. This hook --

4 Q. Let me -- you said 1/18ths of an inch. It's
5 1/8th of an inch?

6 A. 1/8th of an inch from the diameter of the hole
7 and 15/16ths of the hook. If you look at the top of that
8 hook, it's below center of that eyelet. To me that's an
9 indication that there is a lot of wear on that particular
10 component and it is not as tight as the original
11 tolerances were built when it was placed there.

12 Q. Now, again you're taking these photographs from
13 a helicopter?

14 A. That's correct.

15 Q. And at a distance of how far?

16 A. In this particular case, again approximately
17 150, 200 feet away.

18 Q. So you're still taking it with a Costco camera
19 and the telephoto lens?

20 A. That's correct.

21 Q. Next up is 268.

22 A. Two sixty-eight is again a photo of tower
23 35/281. This is the right phase and similar to the left
24 phase and again focused on the eyelet.

25 And so we switch to the next. That is 267.

26 Q. Oh, shoot. I forgot.

1 A. So there's the eyelet and the insulator string
2 on the kind of left center of the image again focusing in
3 on that diameter of that hole and the hook and how that
4 hook sits in there. It's hard to see in the light a
5 little bit here.

6 But when you start looking at these images and
7 start seeing the shape of the round hole where that hook
8 sits, it's very easy to start seeing the increase in the
9 space. You're looking at the daylight, the foreground,
10 the background, the shade.

11 With the benefit of digital imagery it's very
12 easy to kind of see what's going on with that hook.

13 Q. Now, these photographs were taken after the Camp
14 Fire; right?

15 A. That's correct.

16 Q. You were able to survey the areas around each of
17 these towers; correct?

18 A. That's correct.

19 Q. Any evidence that you could see of large trees
20 or any other obstructions that had been removed?

21 A. When you fly over this particular area and many
22 of the locations, the three different tower lines are
23 next to each other within 75 yards of one another to
24 100 yards. And so they're -- especially when you look at
25 Google Earth image you will see a very large swath of
26 trees that were removed as part of the vegetation

1 management plan that PG&E does to stay in compliance with
2 the CPUC. And so these areas typically are much more
3 open because trees are removed and shrubbery is kept to a
4 minimum.

5 Q. But I'm just trying to figure out if -- I know
6 after the fire there is nothing obstructing you. Is
7 there any evidence before the fire there was anything
8 that would have obstructed a helicopter from being able
9 to fly in and take images like that?

10 A. No. I did not see in any of the towers that I
11 went to any evidence that there would be anything that
12 would prevent a helicopter from mirroring our flight path
13 and having access to the towers as we did.

14 Q. All right. Moving on to -- well, let me --
15 let's back up on that for a second.

16 All right. So on January 31st you flew the line
17 and you took the photographs that we've been looking at?

18 A. That's correct.

19 Q. And put together the data?

20 A. Yes.

21 Q. What was the next step?

22 A. The next step was to attempt to obtain these
23 hooks and the eyelets as further evidence so that we
24 could examine them and see if there was similar wear that
25 we had observed from the components that we received from
26 tower 27/222.

1 That was a lengthy process. The inner workings
2 of trying to take components off of an electric
3 transmission line, something that had never been done
4 before in terms of a coordinated investigation like this.
5 Typically, when there's a fire, Cal Fire works with PG&E
6 to have their employees take the components off of the
7 towers.

8 Given the nature of this particular incident, we
9 had to weigh the benefits and the potential pitfalls of
10 using PG&E employees to take equipment off of their own
11 towers. We researched if there were other entities that
12 could, in fact, do this for us. At the end of that
13 lengthy process, we determined that the best course of
14 action and safest way for both us as law enforcement
15 trying to obtain these items and the public safety was to
16 work with PG&E and have their personnel under our
17 supervision remove those items in a very controlled
18 manner.

19 Q. How long -- well, was there a -- a name given to
20 this project?

21 A. We called it kind of the exemplar towers project
22 within our group.

23 Q. Okay. How long did it take to set up the
24 exemplar towers project to obtain the evidence from each
25 of these towers?

26 A. I flew the line on the 31st of January and by

1 the 28th and 29th of March we were able to complete those
2 tasks and take possession of those items.

3 Q. Between when you flew the line on the 31st of
4 January and March 28th, did you physically go up into the
5 canyon and visit all of these towers on foot?

6 A. On multiple occasions myself and other members
7 of the investigative team began to research the different
8 options. Coordinating an effort like this could be
9 costly. The use of the helicopters is not an inexpensive
10 tool. And we also recognized that PG&E primarily uses a
11 helicopter in their maintenance of these towers.

12 So we had to survey and reconnoiter around these
13 areas, pinpoint the location, check the access in and out
14 of them. And as part of that I asked Captain Tom Kluge
15 of Cal Fire to check this particular tower out. He had
16 brought up a crew of --

17 Q. Okay. Well, we can talk about that later.

18 At some point between January 31st and
19 March 28th you physically visited these towers?

20 A. Yes.

21 Q. And I've gone back to 265. Exhibit 265 you said
22 is a photograph. It's the first photograph we showed of
23 35/281.

24 A. Yes.

25 Q. When you physically went up to visit 35/281 in
26 February, what did you find?

1 A. I did not physically go there. I asked
2 Captain Kluge to go there and to coordinate the effort
3 and --

4 Q. Okay. I don't want to talk about what
5 Captain Kluge did. You actually physically visited this
6 tower; correct?

7 A. I did not physically visit that tower until the
8 day that I -- actually, I did not physically visit that
9 tower. When did I do that? I did physically visit that
10 tower, but it was not until, I believe, the day that we
11 removed the items on the 28th or 29th.

12 Q. Okay. Do you know Jon McGormley?

13 A. I do, yes.

14 Q. Who is Mr. McGormley?

15 A. All right. I did visit the tower earlier. I
16 could not recall the exact date.

17 Mr. McGormley is an engineer who specializes in
18 failure analysis. Prior to the collection of the
19 evidence on the 28th and the 29th, we had visited tower
20 27/222, tower 32/260, and tower 35/281. And we were able
21 to drive to this tower within 50 yards of it and walk up
22 to it.

23 On that date we observed that the insulator
24 strings were no longer on the tower. They had been
25 replaced with a new set of insulator strings of a
26 different style.

1 Q. Using the photograph -- well, let's back up and
2 lay the foundation.

3 When you went to visit this tower sometime in
4 February or March, this tower had been changed; right?

5 A. That's correct.

6 Q. What had been changed about this tower?

7 A. The insulator strings that you'll see, the
8 suspension insulator strings both the right and left
9 phase and the dead-end up above had all been changed.
10 The new insulator strings were a modern composite
11 insulator string. They're gray in color and they attach
12 completely different than the hook and eyelet style.
13 They are actually bolted on to the arm. And the arms had
14 been modified to receive a different set of insulator
15 strings.

16 Q. Did you attempt -- sorry. Did you make attempts
17 to find the insulator strings that came off 35/281?

18 A. Yes. Through correspondence with PG&E's
19 attorneys we were able to learn that they had removed
20 those suspension arms and the insulator strings including
21 the hooks.

22 We coordinated to meet with them on March 8th in
23 the Berkley area and obtain those items from them. They
24 had taken those items and secured them and had them
25 packaged up. And we secured them through a chain of
26 evidence and brought them back to Cal Fire's evidence

1 locker.

2 Q. Now, referring you to Exhibit Number 269, do you
3 recognize 269?

4 A. I do.

5 Q. What is 269?

6 A. Two sixty-nine is a photograph of the right and
7 left phase insulator hooks that were removed from tower
8 35/281.

9 Q. These were recovered from what? From where?

10 A. These were recovered from the contractor that
11 PG&E had hired to secure the evidence and analyze the
12 components to see what their failure -- basically to
13 analyze what the wear and their failure on these systems
14 with these different components are. So these were
15 exemplar hooks that they were going to use in their
16 analysis of the Caribou-Palermo line.

17 Q. All right. Next, we talked a little bit about
18 you said at the end of March, the 28th and 29th, you were
19 finally able to remove components from the tower?

20 A. That's correct.

21 Q. The towers. I'm sorry.

22 Explain briefly for us the process and how this
23 was accomplished over these days?

24 A. On the 28th we were able to go to 20/160, which
25 we were able to drive to. That was kind of an all-day
26 process. From that process we used a ground crew to

1 drive to the tower and remove the dead-end insulator
2 string, the right and left phase insulator strings, the
3 jumper cable, and the right and left support arms for the
4 left and right phase of the towers.

5 Q. Moving on to the 29th, what was the process that
6 was followed on the 29th?

7 A. On the 29th the towers in question were much
8 more remote and difficult to get to. There were roads
9 that accessed both of those over time. However, there
10 was a washout on the line that -- on the road that
11 accessed tower 24/199. And we had to use multiple
12 helicopters to access the area, one by PG&E to bring
13 their crew and equipment in that ultimately was used to
14 remove all of that equipment and fly it to a landing zone
15 below the tower along the Feather River Canyon.

16 Q. So this is evidence; correct? The things that
17 are being removed from the towers are evidence?

18 A. That's correct.

19 Q. What precautions were taken to establish a chain
20 of evidence?

21 A. I flew into the area and set up before the
22 equipment was removed. I began to take photographs as
23 the crew did their work. I had sat and observed from the
24 ground as the crew dismantled the different components on
25 the tower and watched as the helicopter flew in. The
26 items were attached to a long line on the helicopter and

1 flown off.

2 I then radioed to Captain Kluge with Cal Fire
3 who was waiting at the landing zone. I would watch the
4 bird move towards him, he would pick up the bird, and the
5 bird would drop down out of the view, lower down in the
6 landing zone where he was waiting to receive those items.

7 Q. So I want to back up a little bit. You flew
8 into the area. You flew to the tower. Please describe
9 to the jurors how you flew into the tower.

10 A. Part of my job I routinely train with the
11 helicopters in the marijuana enforcement unit. So we are
12 trained in STABO. STABO is basically a system in which
13 we wear a harness and we are hooked onto the long line.
14 The helicopter will pick us up. We basically dangle
15 below the helicopter, and they will lower us into a safe
16 place. We unhook from the helicopter and can proceed on
17 foot from close proximity to the towers.

18 Q. So do you know how long the line was that you
19 were STABOed on?

20 A. I believe it was about a 120 foot line.

21 Q. Okay. So were you able to STABO into 24/199?

22 A. That's correct.

23 Q. A helicopter was able to carry you and put you
24 down on the road in the area?

25 A. That's correct.

26 Q. How about the PG&E personnel?

1 A. The PG&E personnel were also on the long line.
2 The difference is they were flown in to the top of this
3 tower. You'll see there in the center top of the picture
4 is this particular structure here on the steel on the
5 tower.

6 They're basically lowered in. The first
7 individual is brought in. He secures himself on the
8 tower and then they start to bring in ladders and
9 different pieces of equipment. And then the crew starts
10 to show up kind of in ones and twos depending on the
11 weight to get the entire crew in.

12 And then I just sat and observed that whole
13 process and then watched as they took each component
14 apart and would hook it to the helicopter and fly it off.
15 And then I would receive confirmation from Captain Kluge
16 that he received that. And then the helicopter just kept
17 making multiple trips until all the components that we
18 needed were taken away and secured.

19 Q. And Mr. Ramsey is raising a good question in my
20 ear. Were these power lines energized?

21 A. No. That was one of our biggest concerns about
22 this. To my knowledge, the Caribou-Palermo has not been
23 re-energized since the Camp Fire. And at the time that
24 this was going on the lines were de-energized. However,
25 the crews still take precautions to ensure -- even
26 knowing that the line is de-energized, they still ground

1 out the lines and do everything to practice a safe
2 working environment.

3 Q. All right. So let's move on to photograph
4 marked 271.

5 A. Two seventy-one is a photograph of the right
6 phase insulator string as it's being lifted by the
7 aircraft and taking the weight off of that line. In
8 particular, if you kind of look to the left center of the
9 photograph, you can see the two eyelets and where the
10 hook sits in the eyelet.

11 You can see just how much of that hook does not
12 sit in the round hole as it's sitting there in its
13 original state as it's being taken off of the tower.

14 GRAND JUROR NUMBER FOUR: Which tower is this?

15 THE WITNESS: This is tower 24/199. And there
16 is the right phase insulator string.

17 BY MR. NOEL:

18 Q. And you're taking these photographs from where?

19 A. About 100, 150 yards away on the ground. The
20 ground topography is such that the -- it was kind of
21 uphill, but there's a little bit of a plateau above the
22 base of the tower that sits probably 15 to 20 feet up and
23 then the hill slopes up and away. So I was at a safe
24 vantage point away from the work that was being done
25 overhead.

26 As a precaution in case something was dropped

1 from either the helicopter or by the workers, it would
2 not be safe to observe from below.

3 Q. Next photograph 272.

4 A. Two seventy-two shows the string and the hook as
5 it is just coming off of the tower. When you're able to
6 zoom into this particular photograph -- it's a little bit
7 grainy, but you can see this dark shadow here. On the
8 actual digital image of this particular photograph you
9 can observe the wear in that hook that is coming out of
10 the bracket.

11 Q. And you can also see the holes?

12 A. That's correct. And you can observe right --
13 here are the two -- the - this would be the original
14 bracket hole and this is the bolt-on hanging plate. And
15 the hole where the hook had been was replaced at some
16 point.

17 Q. And photograph number 273.

18 A. Photograph number 273 shows the right phase
19 insulator string being lifted out of the tower area in
20 route to the landing zone.

21 Q. And 274.

22 A. EXhibit 274 is a photograph of the crew as they
23 are starting to unbolt and loosen the right phase support
24 arm on tower 24/199.

25 Q. And 275.

26 A. Exhibit 275 is a photograph of the helicopter

1 removing the right phase support arm from tower 24/199.

2 Q. And 276.

3 A. Exhibit 276 is the crew working to unbolt or
4 remove the support arm of the left phase of the tower
5 from 24/199.

6 Q. And 277.

7 A. It's a photograph of the helicopter taking off
8 with the left phase support arm in tower 24/199.

9 Q. And 278.

10 A. Exhibit 278 is a photograph of tower 32/260.
11 This is the tower that sits down in the bottom of the
12 Feather River Canyon.

13 Q. Okay. Let's spend a little bit of time on this
14 photograph. Whose helicopter is that?

15 A. I believe that is PJ Helicopters that was
16 contracted by PG&E to assist them in the removal of the
17 components off the towers that day.

18 Q. So we see lots of trees in the background.

19 A. Correct.

20 Q. Where are those trees in relation to the tower?

21 A. Those are across the canyon on the other side of
22 the river.

23 Q. So it's quite a distance away?

24 A. That's correct.

25 Q. Is there anything that you saw that is
26 obstructing the helicopter from getting in close to that

1 tower?

2 A. No. The pictures that I took on the 31st would
3 have been taken -- you see the helicopter at the top
4 center of this photograph. If you were to remove that
5 helicopter and lower its position down to approximately
6 the center right of the photograph and out of the tower,
7 that's where we took the photographs from on the 31st.

8 Q. So you were taking the photographs on the 31st
9 actually from the canyon side of the tower looking back
10 towards the tower?

11 A. That's correct.

12 Q. And how far is this tower from the road?

13 A. It's probably 300 yards downhill from the road.

14 Q. But it looks like -- well, where are you taking
15 this photograph from?

16 A. I am below the second set of lines on the -- in
17 that particular area. So I am approximately -- oh, given
18 the angle I'm not as -- the actual distance if you were
19 to walk on that very steep angle was probably closer to
20 200 yards away, but actual distance from the tower was
21 probably closer to 100 yards, 75 yards away.

22 Q. And how did you get to that location?

23 A. I drove down and then hiked from the road down
24 to the tower.

25 Q. Moving on to photograph 279.

26 A. Photo 279 shows the left phase insulator string

1 being lifted off of tower 32/260.

2 Q. Oh, sorry. There we go.

3 A. The insulator string is right here (indicating)
4 in the lower center of the photograph. And you can see
5 the long line to the helicopter. If you look at the very
6 bottom center of the photograph, you will see the support
7 arm, left phase where the insulator was removed from.

8 Q. And photograph number 280, what are we looking
9 at here?

10 A. Photo 280 is the right phase insulator string
11 being lifted off of tower 32/260 on the 31st of January.

12 Q. And photograph 281.

13 A. Photo 281 is the right phase support arm being
14 removed from tower 32/260 on January 31st of 2019.

15 Q. Photograph 282.

16 A. Photo 282 is the left phase support arm being
17 removed from tower 32/260 on January 31st of 2019.

18 Excuse me. The removal occurred on the 29th of March,
19 not January. I apologize. For all of those components
20 on that tower.

21 Q. And all of the hardware, the components that
22 were taken off the three towers we talked about -- 2160,
23 24/190 and 32/260 -- what were done with all of the
24 components?

25 A. As each of those components were removed from
26 the tower, we had assembled an evidence team from the

1 Federal Bureau of Investigation that assisted us in
2 photographing, cataloging, and collecting these items.
3 They documented those items for us and photographed them
4 in the photograph log and helped us take measurements and
5 very detailed photographs of each of those components in
6 the condition they were in as they were removed. The
7 items were then packaged and transported to Cal Fire's
8 evidence storage facility and logged into evidence with
9 Cal Fire.

10 MR. NOEL: I believe that's all I have. Anybody
11 else have any questions?

12 Go ahead.

13 **EXAMINATION**

14 BY MR. FOGG:

15 Q. Mr. Moore, how many towers did you photograph on
16 the 31st of January?

17 A. On the 31st I did 24/199. I took photos of
18 27/222 just because we were flying over that particular
19 area. I took photographs of tower 32/260 and tower
20 35/281.

21 Q. How long did you spend on each tower
22 photographing?

23 A. Anywhere from a minute to two minutes.

24 Q. And how long does the whole flight take?

25 A. You know, travel time from the airport, up the
26 canyon and back was probably approximately an hour and a

1 half.

2 MR. FOGG: Thank you.

3 MR. NOEL: Jurors have any questions for this
4 witness?

5 [Counsel conferring off the record.]

6 BY MR. NOEL:

7 Q. Investigator Moore, the one question we have
8 from the jurors is were the components of 27/222 also
9 removed? And if so, where are they?

10 A. Those components were removed by Cal Fire
11 shortly after the fire. I don't know the exact date. I
12 know it was within the first couple days of the fire they
13 had used their investigative techniques to work their way
14 back using their cause analysis of the fire. They
15 secured those -- that equipment off the tower and
16 subsequently logged it into their evidence.

17 Some of those components have subsequently been
18 turned over for processing to the Federal Bureau of
19 Investigation laboratory.

20 MR. NOEL: Any other questions?

21 I think that's all we have for
22 Investigator Moore today and those are all of the
23 witnesses that we have for today.

24 Madam Foreperson.

25 GRAND JURY FOREPERSON: Mr. Moore, you are
26 admonished not to discuss or disclose at any time outside

1 of this jury room the questions that have been asked of
2 you or your answers until authorized by the grand jury or
3 the Court. A violation of these instructions on your
4 part may be the basis for a charge against you of
5 contempt of court. This does not preclude you from
6 discussing your legal rights with your own attorney.

7 Mr. Moore, what I have just said is a warning
8 not to discuss this case with anyone except the Court,
9 your lawyer, or the district attorney.

10 Do you understand?

11 THE WITNESS: I do.

12 GRAND JURY FOREPERSON: Okay. Thank you so
13 much. Thank you for your time.

14 MR. NOEL: If you will wait out there, you can
15 help me bring everything back to the office.

16 Madam Foreperson, that is all we have for today.
17 I think depending upon what you guys want to do we're
18 done for today.

19 GRAND JURY FOREPERSON: Okay. So next week
20 8:30?

21 MR. NOEL: Yes.

22 GRAND JURY FOREPERSON: Next week 8:30. Thank
23 you.

24 [Matter adjourned at 2:45 p.m.]

25 --oOo--
26

COURT REPORTER'S CERTIFICATE

This is to certify that I, Lisa McDermid Welch, a Certified Shorthand Reporter of the State of California was present at the time and place the foregoing grand jury proceedings were had and taken in the within matter; and that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings; and afterwards caused my said shorthand writing to be transcribed into typewriting; and the foregoing pages, beginning at the top of Page 1 to and including Page 131 hereof, constitute a full, true, accurate, and complete record of the proceedings.

DATED: This 6nd day of June, 2022.

[Lisa McDermid Welch](#)

LISA MCDERMID WELCH, CSR, RPR
CSR LICENSE NO. 10928

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

BCSC-2019-GJ-01

REDACTED
CERTIFIED
COPY

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, JULY 23, 2019

VOLUME 13

OROVILLE, BUTTE COUNTY, CALIFORNIA

JENNIFER L. HUNT, CSR 10735, OFFICIAL COURT REPORTER

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DEPARTMENT OF JUSTICE

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OROVILLE, BUTTE COUNTY, CALIFORNIA

TUESDAY, JULY 23, 2019

8:30 a.m.

(Confidential Grand Jury Proceedings)

-oOo-

[ROLL CALL OMITTED.]

[DISCUSSION OMITTED.]

GRAND JURY FOREPERSON: (WITNESS #13), before
you have a seat, would you raise your right hand please
to be sworn.

(WITNESS #13)
having been called as a witness in
the matter now pending, having been first
duly sworn, testifies as follows:

THE WITNESS: I do.

GRAND JURY FOREPERSON: Thank you.

Have a seat, please.

EXAMINATION

BY MR. NOEL

Q. (WITNESS #13), can you please state your name,
your full name, and spell your last name for the court
reporter, please.

1 A. (WITNESS #13), (SPELLING REDACTED) .
2 Q. Are you currently employed?
3 A. Yes.
4 Q. By whom are you employed?
5 A. I'm employed by a company called Cannis
6 (phonetic) .
7 Q. How long have you been with Cannis?
8 A. Since 2014.
9 Q. Prior to 2014, were you employed?
10 A. For a year I was off.
11 Q. Okay. And were you employed prior to that?
12 A. With PG&E.
13 Q. What did you do for PG&E?
14 A. I was on a line crew most of the time.
15 Q. What was your job when you retired?
16 A. When I retired, I was a T-line supervisor for
17 Transmission in Bakersfield.
18 Q. When did you start with PG&E?
19 A. 1976.
20 Q. How did you come to work with PG&E?
21 A. I bugged them until they couldn't stand me
22 anymore.
23 Q. So when you started with PG&E, what position
24 did you begin in?
25 A. I started out as a groundman.
26 Q. What's a groundman?

1 A. It's kind of a learning position. You get
2 material and do other odd jobs on the ground for the
3 crew.

4 Q. How long were you a groundman?

5 A. About a year.

6 Q. What did you do after you were a groundman?

7 A. Then I took an apprentice job.

8 Q. Apprenticing to what?

9 A. Apprentice lineman.

10 Q. Are we talking transmission or distribution?

11 A. Distribution.

12 Q. So you became an apprentice distribution
13 lineman --

14 A. Correct.

15 Q. -- is that correct?

16 Do you remember how long it took you to
17 complete your apprenticeship?

18 A. My apprenticeship was three years.

19 Q. So somewhere around 1980 you became a
20 journeyman lineman?

21 A. Yes.

22 Q. How long were you a lineman in the Distribution
23 Division?

24 A. About ten years.

25 Q. So from approximately 1980 to 1990?

26 A. Approximately.

1 Q. After being an apprentice -- journeyman lineman
2 for ten years, what job did you assume next?

3 A. I took a crew foreman job in Coalinga.

4 Q. Again was that the Distribution side?

5 A. On Distribution, yes.

6 Q. How long did you do that job?

7 A. I was there about three years.

8 Q. At some point did you switch over to the
9 Transmission side?

10 A. After I was a crew foreman, I took a lineman
11 job in Transmission in Sacramento.

12 Q. Okay. So sometime approximately 1993?

13 A. Approximately.

14 Q. What position did you take in Sacramento?

15 A. Lineman.

16 Q. That's a transmission lineman?

17 A. Transmission lineman, yes.

18 Q. What training did you receive before becoming a
19 transmission lineman after all those years as a
20 distribution lineman?

21 A. Training as in?

22 Q. Any specialized training for transmission?

23 A. It's just on-the-job training.

24 Q. Okay. And can you explain to us what you mean
25 by that?

26 A. I went out and worked with other linemen that

1 had been working in the Transmission for quite some time,
2 and they showed me how to do it.

3 Q. So you said you were a transmission lineman in
4 Sacramento for a year, for about a year. What was your
5 next job?

6 A. I was a transmission troubleman.

7 Q. Where was that?

8 A. That was in the same yard there in Sacramento.

9 Q. Before you became a transmission troubleman,
10 did you receive any training to qualify you for the
11 troubleman position?

12 A. No.

13 Q. Did you receive any training at all in being a
14 troubleman?

15 A. No.

16 Q. How long were you a troubleman in Sacramento?

17 A. About two years.

18 Q. What was your next job?

19 A. I took a six-month rotation as a supervisor,
20 transmission supervisor, in that same yard in Sacramento.

21 Q. How long did that job last?

22 A. About three years.

23 Q. Heard the term "temporary-permanent"?

24 A. Yes.

25 Q. So were you a temporary-permanent supervisor?

26 A. Yes.

1 Q. All right. So approximately three years, that
2 leads us up into the late '90s about; right?

3 A. Right.

4 Q. So you were the T-line supervisor in Sacramento
5 for about, you said about three years?

6 A. About three, three and a half, something like
7 that.

8 Q. Three, three and a half years. What was --
9 your job was a T-line supervisor, just what were, what
10 were your duties? Describe them for us.

11 A. I was in charge of the tree trimming. I also
12 was in charge of the maintenance and the patrolling and
13 everything of the lines, too.

14 Q. Patrolling, you mean the troublemen
15 inspections?

16 A. Yes.

17 Q. How many troublemen were you supervising in
18 Sacramento?

19 A. Three.

20 Q. So after approximately three to three and a
21 half years as the temporary T-line supervisor in
22 Sacramento, what was your next job?

23 A. I took a permanent supervisor job as the
24 T-lines supervisor in Table Mountain.

25 Q. Do you remember what year?

26 A. I think it was around 2000. It was around

1 2000, 2001, something like that. I can't remember
2 exactly.

3 Q. So you became the T-line supervisor at Table
4 Mountain?

5 A. Yes.

6 Q. Had you ever been to Table Mountain prior to
7 that?

8 A. Yes.

9 Q. How many times?

10 A. I couldn't tell you exactly. Quite a few.

11 Q. And for what reasons?

12 A. We came up to help the crews up here.

13 Q. So you were somewhat familiar with Table
14 Mountain?

15 A. Yes.

16 Q. When you'd come up prior to becoming the T-line
17 supervisor at Table Mountain, had that, had any of those
18 jobs that you helped with included the Caribou-Palermo
19 transmission line?

20 A. I don't remember.

21 Q. Once you got up here as the T-line supervisor
22 of Table Mountain approximately 2000, 2001, did you
23 receive any training on the specific lines, transmission
24 lines, you'd be supervising at Table Mountain?

25 A. No.

26 Q. How long were you the T-line supervisor at

1 Table Mountain?

2 A. One year.

3 Q. What was your next job after that?

4 A. I took a lineman job. I went out of management
5 and took a lineman job at the same yard.

6 Q. How long were you a lineman at Table Mountain?

7 A. I was a lineman for about two years, but I was
8 upgraded to a T-man almost immediately.

9 Q. Okay. So you were a troubleman at Table
10 Mountain?

11 A. Yes.

12 Q. And do you remember, were there certain lines
13 that you were in charge of?

14 A. I was in charge of the Feather River Canyon.

15 Q. So any of the transmission lines running up and
16 down the Feather River Canyon?

17 A. Yes.

18 Q. That would include the Caribou-Palermo 115 kV
19 line?

20 A. Yes.

21 Q. How long were you a troubleman at Table
22 Mountain?

23 A. I think I was a troubleman for three years.

24 Q. What was your next job?

25 A. I took a supervisor job back in Sacramento as a
26 T-line supervisor again.

1 Q. Back in the same division that you had been
2 prior?

3 A. Yes.

4 Q. How long did that last?

5 A. I was the supervisor there for about two years,
6 but I never actually sat at that desk. They put me in
7 Eureka and a whole bunch of different other spots.
8 Basically I just moved around.

9 Q. So you were technically the supervisor in
10 Sacramento, but you were actually all over the north
11 state?

12 A. A roving supervisor.

13 Q. Roving. That's a good word for it. That's
14 what I was looking for. Roving?

15 A. Yes.

16 Q. An itinerate supervisor?

17 A. Yes.

18 Q. How long did you do that job?

19 A. About two years.

20 Q. And what was your next job?

21 A. I took the supervisor job in Bakersfield as a
22 transmission supervisor.

23 Q. How long did you hold that job?

24 A. Until 2013, October 2013, when I retired.

25 Q. So you retired out as a T-line supervisor in
26 Bakersfield?

1 A. Yes.

2 Q. So going through it, by my calculation, you
3 were a T-line supervisor almost 20 years? I'm horrible
4 at math, but looks like probably somewhere around 1996 or
5 so, '95 or '96, you became a T-line supervisor?

6 A. Yes.

7 Q. Is that about right? And with the exception of
8 the four years in Table Mountain, you were T-line
9 supervisor until 2013?

10 A. Yes.

11 Q. So, let's see, '96, that's 17 -- so about 13
12 years you were T-line supervisor? Does that sound about
13 right?

14 A. Sounds close.

15 Q. And you supervised transmission lines and
16 troublemen in Sacramento?

17 A. Yes.

18 Q. In Eureka?

19 A. Yes.

20 Q. Table Mountain?

21 A. Yes.

22 Q. And Bakersfield?

23 A. Yes.

24 Q. And anywhere else you can think of?

25 A. Metcalf, Petaluma.

26 Q. So when you were in charge as a T-line

1 supervisor and you were a T-man for those three or four
2 years in the early 2000s, do you recall the policies that
3 you had that were in place with respect to inspections
4 and inspections of transmission lines?

5 A. I don't know what you mean by policies.

6 Q. Well, when you were a troubleman, especially in
7 the early 2000s, was there an *Electric Transmission*
8 *Preventative Maintenance Manual*?

9 A. No.

10 Q. Do you remember any written policies that told
11 you how often you were supposed to do different types of
12 inspections and which, what you were supposed to look at,
13 those kinds of things?

14 A. Not that I recall.

15 Q. So what was your policy with regard to the
16 frequency of inspections of transmission lines?

17 A. I did a ground patrol and an aerial patrol
18 alternating each year.

19 Q. So ground patrol one year, aerial patrol the
20 next? Ground patrol, aerial patrol?

21 A. Yes.

22 Q. Describe for me, from your experience, what you
23 mean by ground patrol.

24 A. I would travel along the line in a, either a
25 pickup or I had a quad runner that I would ride for some
26 of the smaller trails. And you would go to each

1 structure and look it over as best you could with a pair
2 of binoculars.

3 Q. How close would you get?

4 A. As close as I could.

5 Q. And what in particular were you looking at?

6 A. Just for anything wrong on the tower.

7 Q. What would you do during a ground patrol if
8 there was parts of the tower you couldn't see?

9 A. I don't know. On a tower it's basically -- I
10 mean, you just look at one side. I didn't usually circle
11 the tower to look at it. You can pretty much see what
12 you need to see from one side or the other.

13 Q. Okay. Did you ever climb towers during --

14 A. No.

15 Q. -- during your inspections?

16 A. No.

17 Q. When you were a supervisor, did you ever have
18 your crews do any climbing inspections?

19 A. No.

20 Q. Are you familiar with climbing inspection of
21 towers?

22 A. Yes.

23 Q. And during your time as a troubleman and as a
24 transmission line supervisor, to your knowledge who was
25 doing climbing inspections?

26 A. Usually the Tower Department would do the

1 climbing inspections.

2 Q. How would the tower department make the
3 decision to climb, do you know?

4 A. If it was at my request they would do it.

5 Q. Why would you request the Tower Department to
6 do climbing inspections?

7 A. I don't recall that I ever did, but that would
8 have been one trigger. And I don't know any other reason
9 why they would do it.

10 Q. So when you were doing your ground patrol --
11 let me back that up. Are you familiar with the term
12 "cold end attachments" from the insulators?

13 A. Yes.

14 Q. When you did your ground patrols and
15 inspections of the towers, was one of the things you were
16 looking at the cold end connections of the insulators?

17 A. As best I could from the ground.

18 Q. Okay. And how would you look at those things?

19 A. With binoculars.

20 Q. And what would you be looking for?

21 A. Just anything out of the ordinary. Rust.
22 That's about all you could really see from the ground
23 usually, if it was rusty.

24 Q. Did you look for wear on the C hooks or the
25 hanger bolts?

26 A. You couldn't see it.

1 Q. From the ground?

2 A. No.

3 Q. Do you know what I'm talking about when I use

4 the term "C hook"?

5 A. Yes.

6 Q. In your experience with PG&E, did you ever see

7 a, what you would consider a worn C hook?

8 A. Yes, I have.

9 Q. Tell us about that.

10 A. We were changing all the insulators on the

11 line, it was a 115 line in the Cordelia area, and one of

12 the insulators we took off the C hook had a worn spot in

13 it.

14 Q. What type of worn spot?

15 A. Where the insulators had been swinging back and

16 forth in the wind, and it had worn a groove in the C

17 hook.

18 Q. Like a channel?

19 A. Yes.

20 Q. About the size of the hanger plate or the

21 hanger?

22 A. Yeah, looked like somebody had sawed it.

23 Q. Do you remember when that was?

24 A. No, I don't. It was when I was a new lineman

25 in the Transmission Department.

26 Q. So we're talking about way back in the '80s?

1 A. Yes.

2 Q. What did you do with that C hook?

3 A. We gave it to our supervisor.

4 Q. Do you remember who that was?

5 A. John Handy.

6 Q. Do you know what Mr. Handy did with it?

7 A. No.

8 Q. So you said this was in Cordelia?

9 A. Yes.

10 Q. Where is Cordelia?

11 A. It's out -- if you go out to 80 and through

12 Vacaville, and Cordelia is the last little town before

13 you go across the straight into the Bay Area.

14 Q. Okay. Are you familiar with the junction of

15 Interstate 80 and Highway 680?

16 A. Fairly.

17 Q. Okay. Is Cordelia somewhere around there?

18 A. It's -- that's on the other side, I believe.

19 So this would be on the Vacaville side.

20 Q. Okay. You said the wind had caused this to

21 rock back and forth?

22 A. Yes.

23 Q. In your experience, was that a windy area?

24 A. Yes.

25 Q. And what type of tower, if you remember?

26 A. I couldn't tell you exactly. It was just a 115

1 tower, single circuit.

2 Q. Suspension tower?

3 A. Yes.

4 Q. Transmission?

5 A. Suspension.

6 Q. Suspension tower.

7 So you guys took off this C hook, saw the

8 groove. That seem unusual to you?

9 A. Yes. That's the first time I had ever seen it.

10 Q. Okay. And so you pulled it and gave it to your

11 boss?

12 A. Yes.

13 Q. And you never heard anything more about it?

14 A. No.

15 Q. How far worn do you think that C hook was that

16 you saw?

17 A. Probably a third of the way through.

18 Q. Now, let's talk about your air patrols. Tell

19 us your procedure for doing air patrols when you were a

20 towerman -- or troubleman and again as a T-line

21 supervisor.

22 A. You would start at one end of the line and you

23 would fly extremely slow, I would say probably about like

24 at a fast walk. And --

25 Q. How close to the towers?

26 A. Probably about 30 feet, depending on how the

1 wind was blowing. If the wind's blowing, then you have
2 to fly a little farther away.

3 Q. Okay. So it would be safe to say that you
4 wanted to fly as close to the towers as safe?

5 A. Yes.

6 Q. How many transmission lines do you inspect
7 through air patrols on -- per day?

8 A. It was generally just one. Maybe even partial.

9 Q. And what were you looking for when you were
10 doing air patrols?

11 A. Flashed insulators, conductor damage, anything
12 basically you could see a problem with it, top of it,
13 tower.

14 Q. How about the cold end attachments, the
15 connectors, the insulators?

16 A. You would be able to see if they were rusted or
17 something like that, but you wouldn't be able to see the
18 wear.

19 Q. Okay. As a lineman, later as a troubleman or a
20 T-line supervisor, did you ever get any training on what
21 the cold end connectors were supposed to look like new?

22 A. Other than the fact I saw them new, that was
23 about it.

24 Q. Let's go specifically to the Caribou-Palermo
25 line. Did you get any training on what those were
26 supposed to look like, those cold end attachments were

1 supposed to look like when they were new?

2 A. No.

3 Q. So you've got the holes and you've got the

4 hooks. Did anybody tell you to look for daylight between

5 the top of the hook and the top of the hole?

6 A. No.

7 Q. Would that have been something that would have

8 been visible to you from the air?

9 A. Probably not.

10 Q. Okay. What if there was a lot of space between

11 the two?

12 A. I wouldn't have thought anything about it.

13 Q. Okay. Because nobody told you?

14 A. No. And those holes are all different sizes

15 sometimes. They can be big; they can be small.

16 Q. Yeah. Were you given any special instructions

17 for inspecting the Caribou-Palermo 115 line?

18 A. Not that I recall.

19 Q. Did you give any special care to the

20 Caribou-Palermo 115 line?

21 A. No more than any other line.

22 Q. Were you familiar with the history of the

23 Caribou-Palermo 115 line?

24 A. I knew that it was old.

25 Q. Did you know how old?

26 A. No.

1 Q. So in your other jobs when you were the T-line
2 supervisor in Sacramento, when you were a roving T-line
3 supervisor in Eureka and Metcalf and I think you said
4 Petaluma, and then finally T-line supervisor in
5 Bakersfield, did you have any old transmission lines?

6 A. There's a lot of old lines in PG&E, so I would
7 say yes.

8 Q. All right. And let's define old as pre-World
9 War II.

10 A. Yes.

11 Q. Were there ever any special instructions on
12 inspecting and maintaining those lines?

13 A. No.

14 Q. Were you ever instructed to give any special
15 care to maintaining or inspecting those lines?

16 A. Not that I recall.

17 Q. Were you ever told to do climbing inspections
18 of those lines?

19 A. No.

20 Q. Were you ever told to do enhanced inspections
21 of those lines?

22 A. No.

23 Q. Were you ever told to do increased frequency
24 inspections on those lines?

25 A. No.

26 Q. Now, you were a T-line supervisor in 2010;

1 correct?

2 A. Yes.

3 Q. I want to talk just post 2010. Starting in
4 2011, were any changes made to the inspections for the
5 older transmission lines, those that were at that time
6 70, 80, 90 years old?

7 A. Not that I recall.

8 Q. So no changes 2011 in terms of how you were
9 inspecting, the frequency that you were inspecting, what
10 you were looking for?

11 A. Not that I remember.

12 Q. Now, as a T-line supervisor, how much influence
13 did you have on the budget for your unit?

14 A. None.

15 Q. What was your role in the budget?

16 A. I was just tasked with keeping my costs down
17 and staying within whatever budget they gave me.

18 Q. So you were given a budget?

19 A. Yes.

20 Q. And told to stay within it?

21 A. Yes.

22 Q. Did that, was that difficult in some years?

23 A. Sometimes.

24 Q. What kinds of things could you do in those
25 years where keeping within your budget was difficult to
26 save money?

1 A. Road work was always my pet peeve. We never
2 had enough money to maintain our roads.

3 Q. Okay. How about the helicopter inspection, the
4 air patrols?

5 A. Never had a problem with that.

6 Q. All right. How were those covered in your
7 budget?

8 A. The money was allotted for patrols. And, yeah,
9 I didn't really have any control over that either.

10 Q. How much influence, or how much control did you
11 have over which lines got inspected which years?

12 A. None.

13 Q. How did you know what which lines to inspect in
14 which years?

15 A. It was just depending on what happened last
16 year; you swapped it around.

17 Q. Was there somebody else giving you a schedule?

18 A. We were told how often we were supposed to do
19 it, I guess. I don't recall anyone ever giving me a
20 schedule and saying, "Hey, here do this."

21

22 (Grand Jury Exhibit 284 was marked for identification.)

23

24 Q. All right. You have in front of you three
25 packets of documents. Top one should be number 284.

26 A. Okay.

1 Q. Do you recognize that document?
2 A. Yes.
3 Q. What is that document?
4 A. This is a ground patrol of the Caribou-Palermo
5 line.
6 Q. Is that a ground patrol that you did?
7 A. Yes.
8 Q. When did you do it?
9 A. I completed it on 8/11 of '03.
10 Q. When did you start it?
11 A. I don't know.
12 Q. Can you look through it and tell?
13 A. Probably not. I don't think they kept dates on
14 it. This was before we started dating them. So no, I
15 can't tell you when I started it.
16 Q. How long did it generally take you to complete
17 the ground inspection of the Caribou-Palermo line?
18 A. I'm not sure.
19
20 (Grand Jury Exhibit 286 was marked for identification.)
21
22 Q. Well, let's skip over from there, from 284.
23 Let's go to 286. Should be on -- there you go. Do you
24 have 286?
25 A. Yes.
26 Q. Do you recognize 286?

1 A. Yes.

2 Q. What is 286?

3 A. It is the same thing, ground patrol of the
4 Caribou-Palermo line done in 2005.

5 Q. And this, again, was a ground patrol that you
6 did?

7 A. Yes.

8 Q. That's your name on the front?

9 A. Yes.

10 Q. Now, this was after you had started keeping
11 dates on each page; correct?

12 A. Yes.

13 Q. So can you tell us when you started this
14 inspection and when you finished it?

15 A. I started it in June 28th of '05.

16 Q. And when did you finish it?

17 A. I completed it 8/1 of '05.

18 Q. So it took you quite a while to do?

19 A. Yes.

20 Q. Why so long?

21 A. Because I didn't just stay on this patrol and
22 do it. They often had me, pulled me off and go do other
23 things.

24 Q. Okay.

25 A. So I would work on it one day, then come back
26 three days later and work on it again, so on so forth.

1 Q. But in '05 you dated it every day --
2 A. Yes.
3 Q. -- as to what work you did on that day?
4 A. Yes.
5 Q. And how many different days did you work on
6 that inspection?
7 A. I'd have to count them.
8 Q. Go ahead.
9 A. So I started at 6/28.
10 Q. You can just tell us the dates that you worked
11 on those.
12 A. Separate the pages here. Then 7/1, 7/8, 7/9,
13 7/12, 7/14, 7/15, 8/10, 8/11, 8/12, and I go back to 8/1.
14 Q. So that sounds like about 14 or 15 days that
15 you spent completing this inspection?
16 A. Close. I wasn't counting how many.
17 Q. I was trying to count as you went through.
18 It's all in the record. So we can count them later.
19 Why did it take you so long, so many days to
20 inspect the Caribou-Palermo?
21 A. Probably because they were pulling me off to go
22 do other things.
23 Q. Do you remember how long the Caribou-Palermo
24 line was?
25 A. In miles you mean?
26 Q. Yeah.

1 A. Not off the top of my head, no.

2 Q. Or the structures?

3 A. No.

4 Q. Would those be in your report?

5 A. It should be in here, yes.

6 Q. Somewhere in here.

7 A. It says 62 miles and 432 structures.

8 Q. What's the topography of the Caribou-Palermo

9 line?

10 A. It runs along the side of a canyon.

11 Q. So those things have anything to do with the

12 reason it took you so many days to actually complete the

13 inspection?

14 A. Some of them are very hard to get to.

15 Q. Let's talk about that. Did you have processes

16 or procedures for how to, how to get to and inspect

17 hard-to-reach towers?

18 A. I don't know if I would call it a process or

19 procedure, I would just get to it in my truck as best I

20 could. And if I couldn't get to it in a truck, I would

21 take the quad runner. If I couldn't get to it in that,

22 I'd try to walk to it.

23 Q. How about helicopters?

24 A. I didn't use helicopters there.

25 Q. Did you ever -- in your experience, did you

26 ever use helicopters to help with ground inspections?

1 A. Yes, if you were able to actually land a
2 helicopter somewhere. Up that canyon, you can't.

3 Q. Explain to us how you would use a helicopter to
4 assist with a ground inspection.

5 A. Well, there's a 500 line that I used to have my
6 crew that I would put like four guys in a helicopter and
7 the helicopter would stop at each tower and drop somebody
8 off, and then we'd just hopscotch them along.

9 Q. So you'd actually use the helicopter to insert
10 the troublemen to inspect that tower?

11 A. Actually, that was linemen doing that.

12 Q. Linemen?

13 A. Yes.

14

15 (Grand Jury Exhibit 285 was marked for identification.)

16

17 Q. All right. We talked about 284 and 286. Let's
18 go to the middle, 285.

19 Do you recognize that document?

20 A. Yes, I do.

21 Q. What is that document?

22 A. This is an air patrol of the Caribou-Palermo
23 completed on 9/1 of '04.

24 Q. And you completed that patrol?

25 A. Yes.

26 Q. And that's your report?

1 A. Yes.

2 Q. So 2003 you do a ground inspection of the
3 Caribou-Palermo; correct?

4 A. Yes.

5 Q. 2004 an air patrol of the Caribou-Palermo?

6 A. Yes.

7 Q. 2005 we're back to ground inspection?

8 A. Yes.

9 Q. Do you know when that changed?

10 A. No. No. Not that I remember.

11 Q. Just a couple more.

12 Do you remember who your predecessor was as the
13 supervisor at Table Mountain?

14 A. (EMPLOYEE #9). No, take that back. Yeah, it
15 was (EMPLOYEE #9). No, it wasn't. It was (EMPLOYEE #3).

16 Q. Okay. And do you remember who your successor
17 was?

18 A. It was (EMPLOYEE #9) who came in afterwards. I
19 moved around so often it's hard to remember.

20 MR. NOEL: I think that's all I have.

21 GRAND JURY FOREPERSON: Okay.

22 MR. NOEL: Jurors have anything?

23 The jurors, if they have questions, they write
24 the questions down and we will ask them to you.

25 (Grand Jury Foreperson and counsel confer).

26 Q. (By MR. NOEL) (WITNESS #13), these are

1 questions from the jury.

2 When in your career did you first see a
3 maintenance inspection policy manual?

4 A. I don't remember the exact date. It was when I
5 was in Bakersfield.

6 Q. Would it surprise you to learn that there's a
7 standard of specifications for the components to cold end
8 connectors that define specific and regular sizes for
9 those components?

10 A. Would it surprise me?

11 Q. Yeah.

12 A. No.

13 Q. Did you ever see those?

14 A. No.

15 Q. As part of your job as either a lineman or a
16 towerman, or a T-line supervisor, did anyone ever show
17 you the specs for the things that you were supposed to be
18 inspecting?

19 A. No. I was never a towerman, though.

20 Q. Okay.

21 Anything else?

22 All right. I'll give this back to Madam Clerk.

23 I have nothing further of this witness.

24 GRAND JURY FOREPERSON: (WITNESS #13), you are
25 admonished not to discuss or disclose at any time outside
26 of this jury room the questions that have been asked of

1 you or your answers until authorized by the Grand Jury or
2 the Court. A violation of these instructions on your
3 part may be the basis for a charge against you of
4 contempt of court. This does not preclude you from
5 discussing your legal rights with your own attorney.

6 (WITNESS #13), what I have just said is a
7 warning not to discuss this case with anyone except the
8 Court, your lawyer, or the district attorney. Do you
9 understand?

10 THE WITNESS: Yes.

11 GRAND JURY FOREPERSON: Okay. Thank you.

12 [DISCUSSION OMITTED.]

13 GRAND JURY FOREPERSON: (WITNESS #22), before
14 you have a seat, would you please raise your right hand
15 to be sworn.

16
17 (WITNESS #22)
18 having been called as a witness in
19 the matter now pending, having been first
20 duly sworn, testifies as follows:

21
22 THE WITNESS: Yes.

23 GRAND JURY FOREPERSON: Thank you. Have a
24 seat, please.

25 THE WITNESS: Thank you.
26

EXAMINATION

BY MR. NOEL

Q. (WITNESS #22), can you please state your full name, spelling your last for the record.

A. My name's (WITNESS #22), (SPELLING REDACTED).

Q. Are you employed, (WITNESS #22)?

A. Yes, sir.

Q. By whom?

A. Pacific Gas & Electric.

Q. What capacity?

A. I am the Table Mountain area maintenance transmission line supervisor.

Q. How long have you had that job?

A. Since July of 2017; so two years.

Q. Who was your predecessor?

A. (WITNESS #12).

Q. All right. When did you start PG&E?

A. 2007. July of 2007. I started at PG&E down in Fremont in the Materials Department for the company.

Q. What were you doing in Materials Department?

A. I was what they called a "material handler," so it was loading/unloading packaging up material for distribution to local yards.

Q. How long did you do that job?

A. I was there until July of 2009, at which point

1 I took a position with our Tower Department group out of
2 Davis.

3 Q. What position did you fill with the Tower
4 Department?

5 A. I took a position as a utility worker, which
6 turned into a towerman position probably within nine
7 months to a year after that.

8 Q. What is the Tower Department?

9 A. Tower Department, it's a division within PG&E
10 that they do maintenance and construction of all steel
11 transmission structures. So anything from 60 kV on up,
12 anything that has a concrete foundation. We do new tower
13 installation, new LSP -- lattice steel pole -- basically
14 a pole made out of angle iron, and new towers. So we do
15 everything from the excavation to the foundation,
16 installing foundation and building the structure.

17 Q. What about existing structures, does the Tower
18 Department deal with those?

19 A. Yeah. So they'll do the maintenance,
20 construction. We'll do inspections. So Tower Department
21 inspects the 500 kV climbing inspections. That's part of
22 their job duties, also.

23 Q. When you say 500 kV, are you talking about the
24 big 500 kV transmission lines?

25 A. Correct.

26 Q. What about the 115 line, does the Tower

1 Department do inspections on those?

2 A. We can do inspections, yeah, as they're
3 triggered. There's no cycle for doing inspections on
4 those, but, you know, sometimes we'll have a reconductor
5 project, we'll pull new wire through an existing circuit.
6 And a lot of times we'll preinspect it before the job
7 takes place.

8 Q. So you said you started off in the Tower
9 Department as a utility worker. What's a utility worker?

10 A. Utility worker is basically what we call a
11 "groundman." They're there to -- it's entry-level job.
12 You know, you learn the basics. All ground-related
13 activities, because you're not climbing yet. So you do
14 the concrete work, mostly excavations, that type of work.

15 Q. You said that after spending about a year as a
16 utility worker you became a towerman?

17 A. Correct.

18 Q. What's a towerman?

19 A. So a towerman is essentially somebody who
20 climbs and does the aerial work.

21 Q. What do you mean by "aerial work"?

22 A. Work off the ground. So within the structure.

23 Q. So actually going up into the structure,
24 climbing the structure itself, as opposed to flying over
25 it in a helicopter?

26 A. Yeah. Towerman doesn't fly. They won't, they

1 won't fly over it.

2 Q. Right.

3 A. They'll fly to it, land on it, but yeah,
4 they're not --

5 Q. Just trying to make -- we've heard the term
6 over and over again, aerial, aerial, aerial in terms of
7 air patrols.

8 A. Right.

9 Q. When you're talking about towermen --

10 A. Aerial, off the ground.

11 Q. -- aerial, off the ground, you're talking about
12 them actually climbing up into the structure itself?

13 A. Correct. They can do either way. They can fly
14 underneath the helicopter. We call it long-lining, where
15 they're attached to the line. So a towerman can be
16 trained to do that, where he will be landed on a
17 structure, or at the base of a structure.

18 Q. How long were you a towerman?

19 A. I was a towerman until I took the tower
20 supervisor job I believe in January of 2015.

21 Q. So basically went to Tower Department '09, you
22 became a towerman about 2010. So to about 2015; is that
23 about right?

24 A. Correct.

25 Q. So about five years that you were a towerman.

26 While you were a towerman, did you ever work on

1 the Caribou-Palermo line?

2 A. Yeah. Yeah, I was a -- Caribou-Palermo was one
3 of the first circuits I did some climbing on right after
4 climbing school. And then we, you know, we've done
5 various work. We had some foundation erosion issues. We
6 put a new structure in at one location. We had several,
7 we had five towers fall down, we put five towers in to
8 replace those. Or actually they were TSPs. But we
9 definitely did some work during my time as a towerman.

10 Q. Why were you climbing towers in the
11 Caribou-Palermo?

12 A. I believe it was for an upcoming NERC project.
13 NERC is where they'll go through and LIDAR the circuit to
14 ensure we have proper ground clearance at every location.
15 They do it with a helicopter and some sort of lasers or
16 something that measures very accurately the distance from
17 the conductor to the ground. And we've had these
18 projects go through where they'll raise certain
19 structures to get additional height out of them. So I'm
20 pretty sure that was on the books and we were doing a,
21 just a sample inspection of the structures to see what we
22 saw.

23 Q. So you were going up and inspecting to find out
24 if you could raise the height of towers?

25 A. I'm assuming that's what it was, right. Like I
26 said, this was day four out of climbing school, and I was

1 barely a towerman, so I just did what I was supposed to.

2 Q. All right. So let's go back. You said
3 foundation erosion. What is foundation erosion?

4 A. So we had one tower out there where the entire
5 hillside was sliding. The tower moved, you know, a
6 certain amount of feet. So we had to replace a structure
7 uphill from it where the conditions were still stable.
8 We had a pretty large rock go through another one about
9 the size of a Volkswagen Beetle. Those kind of
10 foundation problems.

11 Q. Okay. You said you did a tower replacement on
12 the Caribou-Palermo?

13 A. Correct.

14 Q. Do you recall what tower?

15 A. No.

16 Q. Why replace the tower?

17 A. Because a boulder had gone through it.

18 Q. Okay. That's the one that got hit by the
19 Volkswagen-sized boulder?

20 A. Correct.

21 Q. Then you said you had to replace five towers?

22 A. Correct.

23 Q. That was during 2012?

24 A. Must have been right around there.

25 Q. Okay. And what was your job with regard to the
26 tower replacement?

1 A. I was a towerman when we tore them out. So we
2 flew out all the damaged structures. And then at the
3 time, Line Department came and put a temporary wood pole
4 shoo-fly in.

5 Q. So you actually physically took the towers
6 that, the fallen towers, out of the canyon prior to the
7 installation of the shoo-fly?

8 A. Yeah. We had to get them out of the way at
9 least for the wood pole structures to go in. So the ones
10 that were flew out, we flew out, and the ones that
11 couldn't, we couldn't flew out, we moved them uphill so
12 we they could get wood poles in there.

13 Q. What kind of training did you receive to
14 qualify you as a towerman?

15 A. We go to climbing school. It's down in
16 Livermore. They teach, you know, the basics of climbing.
17 We do a hundred percent fall protection where we, they
18 train us on using our hundred percent climbing tools to
19 mitigate any fall hazards. We go to grounding school
20 where they teach us how to ground, deenergize circuits.
21 A lot of on-the-job training, too. But we have tower
22 foundation course where we learn how to put in
23 foundations.

24 Q. Did any of your training include specs for the
25 towers you were going to be working on?

26 A. I don't understand the question.

1 Q. Specific measurements, what things are supposed
2 to look like, how they're supposed to fit together?

3 A. No.

4 Q. What size things went in which towers?

5 A. No. I mean, you might be referring to like
6 drawings. We have drawings for pretty much all of our
7 tower types, which is where you would find dimensions,
8 steel size, hole distances, if that's what you're asking
9 about.

10 Q. Right. Is that part of your training?

11 A. Yeah, that's probably the on-the-job portion of
12 the training where we build a lot of, whether it be tower
13 extensions, and part of it's print reading.

14 Q. So, for instance, when you were doing the, the
15 NERC project on the Caribou-Palermo, in looking at towers
16 for the possibility of raising them, did you look at the
17 written, the documented, printed specifications for that
18 tower before going in?

19 A. No. We were looking more at access to each
20 structure and, you know, conditions of the structure in
21 the areas around the structures. You know, as a
22 towerman, we're not engineers, we can't tell, you know,
23 what type of extension or if the tower can be extended or
24 anything. That all comes from our engineering group.

25 Q. When you're climbing around up in the towers,
26 obviously, you have a specific job you were going up

1 there for; right?

2 A. Right.

3 Q. Are you also, as you're climbing around,
4 looking around in the tower for signs of wear or
5 corrosion or rust?

6 A. Yep.

7 Q. Any of those things?

8 A. Definitely looking at the condition of the
9 tower.

10 Q. So how can you determine wear if you don't know
11 how the things are supposed to fit together in the first
12 place?

13 A. I don't understand.

14 Q. Well, using the example of a hook in the hole,
15 how can you determine if there's wear on the hook in the
16 hole, if you don't know how they're supposed to fit
17 together in the first place, how much space there's
18 supposed to be?

19 A. Well, I mean, you can look at a piece of steel
20 and determine if it's wearing or not.

21 Q. Okay. How?

22 A. By missing metal.

23 Q. And how would you see that?

24 A. Well, because the steel's going to be a certain
25 thickness all the way into a point where it's not that
26 thickness anymore.

1 Q. Okay. So if you're looking at things like
2 hooks in holes, you'd be able to see those when you're
3 climbing around up in the tower?

4 A. Oftentimes, yeah.

5 Q. And so when you were climbing around the
6 Caribou-Palermo towers, were you looking for those
7 things?

8 A. I was looking at conditions, condition of the
9 steel, yes. We were looking for bent steel, rusted
10 steel, missing bolts, damaged hardware. Like I said,
11 foundation issues, yes.

12 Q. All right. So after you were a towerman you
13 said you became a supervisor in the Tower Department?

14 A. Correct.

15 Q. Around 2015?

16 A. Correct.

17 Q. And what did you do as a supervisor in the
18 Tower Department?

19 A. I -- the -- my first tower supervisor job was
20 in the north coast area. So we did -- my first large
21 project was a reconductor Contra Costa, Moraga. So it
22 went from Antioch down to Moraga. It was a series of
23 tower extensions working in conjunction with Line
24 Department to pull new wire through.

25 Q. What was -- you said you did that job until
26 2017?

1 A. Yeah. We did a re-org. So at one point the
2 north coast was no longer north coast. We went to a
3 north, central, south region, at which point I became the
4 north tower supervisor. So that happened probably 2016;
5 sometime in there. So I sort of changed jobs, but I kind
6 of didn't because it was still a lot of the same area,
7 but --

8 Q. Okay. And 2017 you became the transmission
9 line supervisor at Table Mountain?

10 A. Correct. Yeah, I did some temporary
11 assignments with Sacramento maintenance, and then with GC
12 line, then I ended up at Table Mountain in July.

13 Q. So what training did you get to qualify you as
14 a T-line supervisor at Table Mountain?

15 A. We do -- you know -- we do annual training on
16 our preventive maintenance. You know, we have a manual
17 that we -- is pretty much our Bible in the maintenance
18 world. And it's a lot of the similar training to what we
19 have in the Tower Department, too. We're going to do
20 the, you know, structure rescue, that type of training.
21 But -- does that help? Is that clear?

22 Q. Actually was a great segue into our first
23 slide. You have in front of you a binder that's marked
24 as Exhibit No. 248. It's the top blue binder. Flip open
25 to the first page. You should see a sticker that says
26 248.

1 A. Okay.

2

3 (Grand Jury Exhibit 248 was marked for identification.)

4

5 Q. Do you recognize Exhibit 248?

6 A. Yes.

7 Q. What is Exhibit 248?

8 A. The *ETPM Manual*.

9 Q. That's the *Electric Transmission Preventative*
10 *Maintenance* that you just mentioned?

11 A. Correct.

12 Q. Which version of this?

13 A. 2016.

14 Q. Are there multiple versions?

15 A. Yes. They are continually coming out with new
16 versions of this.

17 Q. Okay. So I want to flip through this and look
18 at a few things.

19 First off, there's Table 2, section 1.4. You
20 said you received regular training in *ETPM*?

21 A. Yeah, they do -- we do an initial training
22 where we cover pretty much everything in here that
23 happens, once; then they do refreshers yearly, and that
24 covers any new information. And this manual has been
25 continually updated more oftentimes recently than it has
26 been historically. So it changes quite often these days.

1 Q. How important is this manual to what you do at
2 Table Mountain?

3 A. This manual is pretty important to what my
4 troublemen do.

5 Q. So drawing your attention to section 1.4.1,
6 Table 2, do you see that table?

7 A. Uh-huh.

8 Q. What is this table?

9 A. The "Inspection Best View Position."

10 Q. What is this table for?

11 A. It's a, basically the best view of how you're
12 going to see different facilities from which angle.

13 Q. Okay. Can you give us some of the context of
14 this table?

15 A. Yeah. So take, for example, foundations;
16 right? You're not going to be able to look at a
17 foundation from ten feet above. The optimal position is
18 going to be at ground level.

19 Q. Right.

20 A. Structure, it's going to be a combination.
21 Arms, you're not going to look at the arms from
22 the ground level.

23 Q. So in this left-hand column here, description,
24 all the things that are listed in there, are those things
25 you're supposed to be looking at during your inspections
26 and patrols?

1 A. Correct.

2 Q. And then what type of inspection or patrol is

3 the best to look at those things; correct?

4 A. Correct.

5 Q. What are insulators and hardware?

6 A. Exactly that, insulators and the attachment

7 point. A lot of times it's a C hook, or it could be a Y

8 ball, different types of connections that basically will

9 hang a string of insulators onto the structure.

10 Q. So cold end attachment points?

11 A. Right, on towers.

12 Q. So that would be the hardware that they're

13 talking about in this section?

14 A. Correct.

15 Q. All right. So according to the *ETPM*, what are

16 the best ways to inspect the hardware, the cold end

17 attachment points?

18 A. From an aerial inspection, ground inspection,

19 or climbing inspection.

20 Q. What type of ground inspection?

21 A. Above ten feet.

22 Q. What does that mean?

23 A. Climbing or being elevated.

24 Q. Being elevated how?

25 A. Really we don't have many options. It could be

26 just the nature of the terrain is probably the only way

1 you're going to get above ten feet without climbing.

2 Q. So according to the book, the only way that you
3 can look at the cold end hardware attachments -- yeah,
4 cold end attachment points, is either by the aerial
5 inspection or by the climbing inspection?

6 A. Correct. That's the best view position.

7 Q. Now, what's the --

8 A. It's --

9 Q. Go ahead.

10 A. I was going to say it's not the only way. I
11 mean, this table is kind of a guideline for how you're
12 going to get the best view.

13 Q. Okay. You've worked in the Tower Department,
14 you've worked now the Transmission Line Department.
15 Where is the line between the two jurisdictions?

16 A. I don't understand.

17 Q. Where does the Tower Department duties end and
18 the Transmission Line Department's --

19 A. For like maintenance and construction?

20 Q. Yes.

21 A. Okay. So towermen will work from the
22 foundation, anything up to the steel, out to the arms,
23 and pretty much to the working eye, however that
24 insulator is attached to the structure. Line Department
25 is responsible for the insulators down to the shoes out
26 to the wire.

1 Q. So who is in charge of those attachment points,
2 that cold end attachment point, the hook and the hole?

3 A. What do you mean who is in charge of it?

4 Q. Who is responsible for it, the towermen or the
5 troublemen or the T-line?

6 A. I don't understand. I don't understand what
7 you mean, who is responsible for?

8 Q. Who is responsible for looking at it and
9 determining wear?

10 A. Troublemen or towermen, it could be either.
11 When a towerman's doing a climbing inspection, he's
12 looking at everything. And when you said "jurisdiction,"
13 I mean, I think what you're referring to is who is
14 responsible for doing maintenance on these things. So a
15 lineman isn't going to be changing out a working eye
16 plate. A towerman isn't going to be changing out
17 insulators. But both of them are responsible for looking
18 at the entirety.

19 Q. Okay. All right. Let's go on. Table 13,
20 "Overhead Inspection Frequencies."

21 A. Page number?

22 Q. No, I didn't put the page number on there.
23 Should be section 2.1.3, I believe.

24 A. Got it.

25 Q. Was that right, 2.1.3?

26 A. You nailed it.

1 Q. Describe Table 13 for us.

2 A. This is our inspection frequency. So it has
3 500 kV, 230 kV, 115 kV, and our 60 and 70 kV, and the
4 structure type and the frequency at which we do various
5 inspection types.

6 Q. How often do you inspect steel 115 line?

7 A. Every five years.

8 Q. All right. Next section, 2.1.4. "Inspection
9 Documentation." Are you familiar with this section?

10 A. Yes.

11 Q. As a supervisor, is this a section that you
12 have to deal with a lot?

13 A. Not so much this section of the manual, but the
14 forms that it's alluding to.

15 Q. This section talks about which forms the
16 troublemen or the inspector -- let me back that up.

17 The terms that's used in there is "QCR." Do
18 you know what a QCR is?

19 A. I believe the acronym is Qualified Company
20 Representative.

21 Q. Okay. So QCR should have these certain
22 documents before they do an inspection?

23 A. Correct.

24 Q. And it's the responsibility of the QCR,
25 yourself, and the clerk to make sure that they have all
26 the correct documents?

1 A. Correct.

2 Q. Who is the clerk?

3 A. Who is my specific clerk?

4 Q. Yep.

5 A. (WITNESS #21).

6 Q. So the documents: The Transmission Line

7 Inspection Data Patrol Data Sheet?

8 A. Uh-huh.

9 Q. That's one of the documents? Remember, we have

10 to talk out loud for her.

11 A. Yes.

12 Q. She can't type head nods.

13 A. There's no button for that?

14 Q. And then the object list?

15 A. Correct.

16 Q. Now, what's the Transmission Line Inspection

17 Data Patrol, or Inspection Patrol Data Sheet, what kind

18 of form is that?

19 A. It's a sheet where they will document any

20 findings that they have during their patrol and

21 inspection.

22 Q. What's the object list?

23 A. The object has every structure on that patrol

24 in its own sort of box where you mark whether they found

25 anything there or not.

26 Q. All right. 2.2, "Climbing Inspections."

1 Familiar with this section?

2 A. Sure.

3 Q. What kinds of things would trigger a climbing
4 inspection of a 115 line?

5 A. Pretty much, you know, like I said, projects,
6 upcoming project work, could. That's historically what
7 I've seen. We did an inspection on a circuit that ran
8 from Vacaville to Lakeville because they were going to do
9 some NERC work on it, raising some structures,
10 reconductor, whatnot. That will trigger a climbing
11 inspection. We went out there and looked at every
12 structure to make sure it was in good condition before
13 they added on top of them.

14 Q. So you don't just do climbing inspections to
15 get up there and look around and see what kind of
16 condition this tower is in; correct?

17 A. Unless it is a trigger, right.

18 Q. Right. So let's say something, you've got a
19 tower line and something goes wrong in one tower, would
20 that trigger a climbing inspection for the rest of those
21 towers?

22 A. It's case by case. It's hard to say that. We
23 have -- you know -- we do maintenance on all of our
24 structures quite often, and that doesn't necessarily
25 trigger a climbing inspection.

26 Q. And, finally, the Appendix, "Appendix E," "Line

1 Patrol File Guidelines." Are you familiar with this?

2 A. Sure.

3 Q. What does that section tell us?

4 A. This is how we file our, our patrols. We have

5 air patrols, we have the detailed ground patrols, and

6 this covers how we file them.

7 Q. And set up your files?

8 A. Correct.

9 Q. Crossovers. Are -- all of your detailed

10 inspections, you should have an operational control

11 ticket; is that correct?

12 A. Yeah, I'm not horribly familiar with the

13 filing. That's more of a clerical issue, but --

14 Q. All right. The Line Inspection Data Sheet?

15 A. Uh-huh.

16 Q. You have to use words.

17 A. Yes.

18 Q. The Transmission Line Object List?

19 A. Correct.

20 Q. The Existing Notifications?

21 A. Correct. Call it "priors."

22 Q. Priors. And a map of the line, the specifics?

23 A. Not my area.

24 Q. All right. And then air and ground patrols,

25 your Operation Control Tickets, your Transmission Line

26 Inspection Data Sheet, the object list, coversheet, and

1 the Existing Notifications; correct?

2 A. Correct.

3 Q. So as a supervisor are you the one that's
4 actually doing the inspections?

5 A. No.

6 Q. Who is doing the inspections?

7 A. The troubleman does the inspection.

8 Q. What part do you play in the inspection
9 process?

10 A. Ultimately just collecting paperwork toward the
11 end, or at the end of their patrols. And, you know, they
12 have -- we have months that a patrol has to be done by,
13 so that's part of my job is to ensure that when we have a
14 patrol that's due in March, it's completed by March. So
15 I'd say, you know, completing it as scheduled, but not --
16 we don't -- as a transmission line supervisor, we don't,
17 we don't schedule the inspections when they're in, but we
18 ensure that they're done when they're supposed to be
19 done, if that makes sense.

20 Q. Okay. Then once they're done, what is your
21 responsibility?

22 A. Oh, just sign off the paperwork and ensure it
23 gets filed.

24

25 (Grand Jury Exhibit 249 was marked for identification.)

26

1 Q. So in front of you is Exhibit 249. Should be
2 right there. In this stack right here.

3 A. This one?

4 Q. Yep.

5 A. Okay.

6 Q. Do you recognize Exhibit 249?

7 A. Not specifically, no.

8 Q. Why don't you go ahead and flip through it;
9 several pages long.

10 A. Okay.

11 Q. Do you recognize 249?

12 A. Yeah.

13 Q. What is 249?

14 A. It's an inspection that (WITNESS #6) did.

15 Q. Is this an inspection that you signed off on as
16 supervisor?

17 A. Yes. Let me make sure. Yes.

18 Q. What page?

19 A. The fourth page.

20 Q. Is that the Transmission Line Inspection Data
21 Sheet?

22 A. Correct. The inspection, yep.

23 Q. And this down here, is this your signature?

24 A. Yes.

25 Q. All right. And your LAN ID is JP -- actually,
26 might as well have you tell us. It's hard to read.

1 A. JPWI.

2 Q. JPWI is your LAN?

3 A. Correct.

4 Q. All right. Let's back up and go through this.

5 First back to the front page. And what kind of document

6 is the front page?

7 A. The control ticket. I'm -- yeah, this is just

8 basic information on the circuit.

9 Q. Now on there in the middle it says "quarterly

10 patrol, move date to end of September." Do you

11 understand what that means?

12 A. No.

13 Q. But this is an inspection of the

14 Caribou-Palermo line; correct?

15 A. Correct.

16 Q. And you said by (WITNESS #6). Page 2 of the

17 document, anything --

18 A. No.

19 Q. -- of substance?

20 A. There's no information on there.

21 Q. So then page 3, what is page 3?

22 A. Page 3 is a list of the priors.

23 Q. And in terms of the names the *ETPM* gives to it,

24 what would this be called?

25 A. The -- I don't understand.

26 Q. The forms, the names that the *ETPM* gives right

1 here in the appendix that we were looking at, what would
2 this form be called? This form is referred to where in
3 here?

4 A. I'm not sure of the official name. We just
5 call it "priors."

6 Q. Right. Would this be the notification page?

7 A. No.

8 Q. The Open Notification?

9 A. That would be this one. Oh, the Open
10 Notification? Yes.

11 Q. Priors are the open notifications?

12 A. Existing notifications.

13 Q. Then the next page is the Transmission Line
14 Inspection Data Sheet; correct? We already talked about.

15 Then the next page, what is that?

16 A. This is just where he documents what days he
17 made it to which structures.

18 Q. That's the last page; correct?

19 A. I have one more page.

20 Q. Yeah, what's that page?

21 A. This is just the mat codes and just like a
22 legend.

23 Q. One of the things that we noticed is that this
24 report is substantially smaller than every other report,
25 or every previous report. There's no Transmission Line
26 Object List. Do you know why that is?

1 A. No, because -- I don't know, honestly.

2 Q. I mean, you took over as supervisor in 2017;
3 right?

4 A. Correct.

5 Q. You had been with the Tower Department all the
6 way up to when you took over as supervisor, T-line
7 supervisor; correct?

8 A. Uh-huh.

9 Q. Remember, we've got to use our words.

10 A. Yes.

11 Q. When you started, this is the way they were
12 being done; is that --

13 A. Yeah, so the air patrols, you know, in the *ETPM*
14 *Manual*, it states that you check preexisting conditions,
15 but I don't believe it has in there that we need the
16 object list. So it's --

17 Q. Well, in the appendix it actually lists the
18 object list as being something that you're supposed to
19 have in your file; correct?

20 A. Right. And I don't know if this is complete.

21 Q. Okay. Then when we went back here into your
22 forms, it talked about for the aerial inspection it
23 listed a Transmission Line Object List as being something
24 to be pulled for all inspections?

25 A. Yeah, he pulls it to utilize it during the
26 patrol. That's what I'm getting at.

1 Q. Okay. All right. So let's move on. Forgot an
2 exhibit number on this one. Should be Exhibit 287.
3 Should be up next.

4
5 (Grand Jury Exhibit 287 was marked for identification.)
6

7 A. I see it.

8 Q. All right. Do you recognize 287?

9 A. Yes.

10 Q. What is 287?

11 A. 287 was patrol performed by (WITNESS #18) in
12 September of '18.

13 Q. On what line?

14 A. The Caribou-Palermo.

15 Q. And this, again, something you signed off on?

16 A. Yes.

17 Q. So the front page, again, page 1?

18 A. The priors, the existing notifications.

19 Q. No, the very cover page.

20 A. Yep, the control ticket.

21 Q. Page 2?

22 A. Priors.

23 Q. Notification page?

24 A. Yes.

25 Q. Page 3?

26 A. The findings.

1 Q. Transmission Line Inspection Data Sheet?

2 A. Correct.

3 Q. And that's your signature down on the bottom?

4 A. Yes.

5 Q. You signed it 9/25/18?

6 A. Correct.

7 Q. And then this untitled form?

8 A. Uh-huh.

9 Q. Remember, you have to say "yes."

10 A. Yes.

11 Q. All right. And then, again, the last page is

12 what?

13 A. This one?

14 Q. Yeah.

15 A. Just documents what day he went to which

16 structures.

17 Q. Okay. No object list with this?

18 A. Correct.

19 Q. So let's talk about the '18 inspection itself.

20 The Transmission Line Inspection Data Sheet. What

21 problems were found on the Caribou-Palermo?

22 A. He found a damaged insulator at structure 2

23 over 22; and a hold down, repair hold down insulator

24 anchor at 27 over 221.

25 Q. When a troubleman doing an inspection finds a

26 problem on the line, explain to us the process that that

1 initiates.

2 A. So if a troubleman finds a problem on the line,
3 he'll fill out this form, he'll get photographs of it.
4 These days we use iPads to document and upload all of our
5 information into a notification. At which point, it goes
6 to a gatekeeper process, which means -- back then it was
7 myself would look at the photos, his information he
8 supplied with the notification. The troubleman assigns
9 the priority, which is how soon the work needs to take
10 place. That can be altered by myself if I feel it
11 necessary. That happens during the gatekeeping process.
12 A tag will be released. And that's when it gets put into
13 the maintenance cue for work to be completed.

14 Q. Okay. So let's talk about the problem on
15 27/221.

16 A. Okay.

17
18 (Grand Jury Exhibit 288 was marked for identification.)
19

20 Q. Moving on to the next, which would be 288.
21 Should be right there next in line.

22 A. Uh-huh.

23 Q. Do you recognize 288?

24 A. It's an LC tag, yes.

25 Q. What does that mean?

26 A. It's just a notification that we use to

1 complete maintenance work.

2 Q. And walk us through that.

3 A. So this is basically the document that our crew
4 would receive when they are tasked with going out to
5 complete this work. Tells them the circuit, structure
6 number. It's got the due date, the date it was written
7 up, who wrote it up. And a brief, what we call a "long
8 text," a brief information on what actually is to be done
9 out there.

10 Q. All right. And the next page?

11 A. It's a photograph, and another photograph.

12 Q. Two photographs? I think this is the third
13 page, the photograph that I have up on the board?

14 A. Yep.

15 Q. What does that photograph show?

16 A. That's the broken hold down.

17 Q. You can always get up and demonstrate on the
18 board if you need to. Just show us what, what a broken
19 hold down is.

20 A. Okay. So a hold down -- here is a lower arm on
21 this particular tower. And what it is, it has a piece of
22 guide wire that kind of went up to the bottom of that
23 insulator and back down, and it basically would hold that
24 string of insulators.

25 Q. Okay. So going back to the front page of the
26 form itself, what was the priority of this?

1 A. This was an E priority.

2 Q. What does that mean?

3 A. Twelve months to make the repairs.

4 Q. Why so low?

5 A. I don't understand "low." What do you mean?

6 Q. Why so low priority? You've got an insulator

7 that's swinging free out there. Why isn't that something

8 urgent to do?

9 A. Well, this, this particular hold down, it's

10 kind of a redundant piece of the structure. If you want

11 to go back to that photograph, that insulator string

12 above the wire is what we would install these days

13 anymore. We wouldn't even have that lower string on

14 there, and it wouldn't be tied back to the tower like

15 this, this one was at one point. So, yeah, it's just

16 kind of a redundant string of insulators right now.

17 Q. This tower line is old; right?

18 A. Yes. As relative, yes.

19 Q. These towers were designed a long time ago;

20 correct?

21 A. Yes.

22 Q. Science has evolved as our knowledge has

23 evolved, the construction design of these towers has

24 evolved; correct?

25 A. Correct.

26 Q. So what they did when this tower line was built

1 is not necessarily what's done anymore?

2 A. Correct. Yeah. We have several different ways
3 to build and design towers. We don't have many that are
4 alike, actually.

5 Q. But yet this is the way this tower line was
6 built; correct?

7 A. Correct.

8 Q. With something from both, to hold that line,
9 those insulators, in place from both top and bottom?

10 A. Correct.

11

12 (Grand Jury Exhibit 195 was marked for identification.)

13

14 Q. Okay. I want to show you photo number 195.
15 Should be next in order right there under your --

16 A. Got it.

17 Q. See 195?

18 A. Yes.

19 Q. What's wrong with that picture?

20 A. That's the broken hold down.

21 Q. Okay. See anything else wrong with that
22 picture?

23 A. That bottom steel looks like it could be
24 damaged.

25 Q. What makes you think it's damaged?

26 A. Oh, just the bent, the bent steel. You can see

1 it's bent on the top part and little wrinkle down at the
2 bottom.

3 Q. We're talking about right here where this is
4 bent?

5 A. Correct.

6 Q. Twisted right there?

7 A. Yes.

8 Q. How come that wasn't noted in that aerial
9 patrol?

10 A. I'm not sure.

11 Q. Let's go on to 196. This is a photograph
12 that's already in evidence. What do you see wrong with
13 that photo?

14 A. Well, looks like there's some slack in that
15 hold down, which is similar to the other side. It could
16 have been how it came out. And then the steel looks a
17 little bit bent as well.

18 Q. And this has previously been identified as the
19 other side of 221. Does that look familiar?

20 A. No, I'm not familiar with the other side.

21 Q. Shouldn't something like that, the bent steel
22 on both sides on the arms, be caught by your troublemen
23 when they're doing patrols?

24 A. Yeah, I would hope so.

25 Q. But there's no, nothing in there saying that
26 that was noted; correct?

1 A. Correct.

2 Q. All right. I want to back up now a little bit.
3 Did I skip it over, or did we talk about the new *ETPM*
4 here? I don't think we -- I think I skipped it.
5 Probably because I forgot to put a tag on it. Give me a
6 second.

7 All right. There. Now it's got a tag on it.

8 A. There it is.

9

10 (Grand Jury Exhibit 298 was marked for identification.)

11

12 Q. Showing you what's marked as 298. Do you
13 recognize that document?

14 A. Yes.

15 Q. What is that document?

16 A. That's the 2018 version of the *ETPM Manual*.

17 Q. When was that published?

18 A. November 20th.

19 Q. Any revisions between the 2016 version we were
20 looking at before and the 2018 version?

21 A. Not to my knowledge.

22 Q. Okay. So the 2016 version was in place from
23 2016 all the way up to November 20th, 2018?

24 A. To my knowledge, yeah.

25 Q. Okay. All right. Now, I want to talk a little
26 bit in general about your aerial patrols. Tell us about

1 the aerial patrol procedure, or the aerial patrol, how
2 you set up aerial patrols.

3 A. Which part?

4 Q. How do you decide which lines get patrolled per
5 year?

6 A. Our schedule, our patrol cycle, is given to us
7 from our asset strategist. So our Asset Management group
8 dictates what patrols we're doing when.

9 Q. What is the Asset Management group.

10 A. It's the division within PG&E who kind of
11 oversees our structures, our steel structures, our wood
12 poles.

13 Q. How often are you inspecting every line?

14 A. Well, it depends on the line really.

15 Q. Okay. Different cycles for different lines?

16 A. Right. We'll do quarterly air patrols on our
17 500 kVs. We'll do annuals on our steel structures.
18 We'll do -- our wood pole circuits, we ground patrol
19 every other year and air patrol it on the off year.

20 Q. So how often would you be patrolling the 115 kV
21 steel structures?

22 A. Air patrols?

23 Q. Yep.

24 A. Every year.

25 Q. How do you determine when to do each structure,
26 each transmission line?

1 A. Each circuit?

2 Q. Each circuit.

3 A. That schedule is given to us by our asset
4 strategist. So they come out quarterly.

5 Q. How do you determine who does which
6 inspections?

7 A. I have four troublemen, and they each have
8 their own area within Table Mountain's headquarters. So
9 each troubleman will air patrol circuits within their
10 area most often. Sometimes they'll, you know, help each
11 other out. But overall, that's -- it's broken up into
12 different areas.

13 Q. So who would be the troubleman doing the
14 Feather River Canyon?

15 A. (WITNESS #6).

16 Q. What's (WITNESS #18) do?

17 A. He's the Chico-Oroville area. So I basically
18 have my area. My area goes from Oroville up to Burney,
19 you know, over halfway to Eureka. And so I have it kind
20 of split into quadrants. So I have a, I have a lower
21 right, lower left, upper right, upper left section,
22 roughly.

23 Q. How many transmission lines approximately are
24 in your area?

25 A. I'm not sure. I believe around a hundred.

26 Q. And those are to be inspected by four

1 troublemen?

2 A. Correct.

3 Q. So explain to us how you set up an aerial
4 patrol of the Caribou-Palermo.

5 A. I don't understand. Which part?

6 Q. Asset Management tells you, "Okay, it's time to
7 do your aerial patrol of the Table Mountain." So what
8 happens from that point? Or Caribou-Palermo, I'm sorry.

9 A. Yes. So it just has to happen within a
10 quarter. So, you know, basically our troubleman will
11 look at his switching schedule, because that's one of the
12 large tasks our troublemen do is switching circuits for
13 clearances for crew work, contractor work. If they see a
14 gap where they don't have switching for a few days,
15 they'll schedule air patrols and they'll fly patrols
16 during those non-switching times. So it's really, it's
17 really a fluid schedule. Oftentimes it changes if
18 something comes up and they need to do switching, which
19 is why we have to fit it within a quarter and not
20 necessarily a day or a month.

21 Q. Now, where do you get the helicopters to do
22 your patrols?

23 A. Different, we have different vendors we
24 utilize.

25 Q. Does PG&E have its own helicopters?

26 A. We don't do -- we have helicopters for like our

1 hydro division, but we don't have our own helicopters,
2 no.

3 Q. Okay.

4 A. Not for doing patrols.

5 Q. So is there a specific company that does a
6 specific area, or is it just --

7 A. No.

8 Q. What are the helicopter companies you deal
9 with?

10 A. Mostly Sac Executive out of Sacramento, A&P,
11 PJ's and, Redding Air.

12 Q. Who sets up the helicopters for these patrols?

13 A. We have the department within PG&E who you will
14 call to request a helicopter, and they schedule the
15 vendor.

16 Q. What's the name of that department?

17 A. Helicopter Operations.

18 Q. So how do the troublemen do all of the
19 inspections that they need to do on the transmission
20 lines per year? How are, how are they able to do that?

21 A. I don't understand.

22 Q. You have four troublemen; right?

23 A. Correct.

24 Q. Somewhere around a hundred lines. How is it
25 that the troublemen are able to inspect 25 lines per year
26 on --

1 A. Air patrol.

2 Q. -- on air patrol?

3 A. If you spend a day on each one, that's 25 days.

4 That's --

5 Q. But they also have ground patrols that they

6 need to do; correct?

7 A. Correct.

8 Q. And all of their switching?

9 A. Uh-huh. Yes.

10 Q. When you say "uh-huh" or "huh-uh," she gives me

11 a dirty look, and then I give it to you.

12 A. Go easy on him. I'm new.

13

14 (Grand Jury Exhibit 253 was marked for identification.)

15

16 Q. All right. So in front of you you have a

17 document marked as Exhibit 253.

18 A. I see it.

19 Q. Go ahead and look at that document and tell me

20 if you recognize it.

21 A. Okay.

22 Q. Do you recognize that document?

23 A. No. I mean, I'm not familiar with it, but I

24 understand it's an email.

25 Q. Okay. Who is the email from?

26 A. My clerk, (WITNESS #21).

1 Q. Who is the email to?
2 A. Aja Lodigiani. She's in Helicopter Operations.
3 Q. Who is the email CC'd to?
4 A. Myself, (WITNESS #18), (WITNESS #6), (EMPLOYEE
5 #10), (EMPLOYEE #16), and Stacie Doyle.
6 Q. Who are those people?
7 A. My four troublemen. And Stacie Doyle is within
8 our Records Management group.
9 Q. What I want to talk about here is the email
10 itself talks about scheduling of helicopter air patrols;
11 correct?
12 A. Correct.
13 Q. So on 9/8/17, looks like (EMPLOYEE #16) is
14 doing five separate lines?
15 A. On 9/6/17?
16 Q. Is that 9/6 or 9/8?
17 A. Yes. Yes.
18 Q. And then 9/12, (WITNESS #6's) doing three
19 lines; is that correct?
20 A. Correct.
21 Q. 9/13, (WITNESS #6's) doing three lines?
22 A. Correct.
23 Q. 9/14, (WITNESS #18's) doing four lines?
24 A. Correct.
25 Q. Is it common that your troublemen are
26 inspecting, doing air patrols of more than one line per

1 day?

2 A. Yes.

3 Q. And how long is a day?

4 A. Helicopter can fly for eight hours.

5 Q. So in eight hours they're doing multiple lines,
6 inspecting multiple lines?

7 A. Sometimes, yeah. And this is -- it would be
8 hard to distinguish what exactly is happening based on
9 this, because just because they flew something on one day
10 doesn't mean they completed it.

11 Q. Okay.

12 A. So, and the other thing that you should note,
13 too, is they -- Malacha Tap, that third line from the
14 top, that's two structures.

15 Q. Okay. So they're varying lengths?

16 A. They're in varying lengths.

17 Q. We know that generally the name denotes the
18 starting point and ending point of every line; right?

19 A. Usually, yes.

20 Q. For instance, (WITNESS #6) on this day did the
21 Caribou-Palermo, the Caribou-Westwood, and the Butt
22 Valley-Caribou?

23 A. Correct.

24 Q. Where is Westwood?

25 A. Near Chester.

26 Q. Okay.

1 A. So --

2 Q. Now that, you said the helicopter can fly for

3 eight hours --

4 A. Yes.

5 Q. -- correct?

6 Does that include the ferry time?

7 A. Yes.

8 Q. So generally where would your troublemen start

9 their day?

10 A. There's no pattern. It could be at a hangar or

11 it can be at an airport. It depends on the day, it

12 depends on the vendor.

13 Q. Okay. Do you know what helicopter company

14 provided --

15 A. No.

16 Q. -- the --

17 A. No.

18 Q. Is it anywhere on your paperwork what

19 helicopter company provided the helicopter on this?

20 A. No.

21 Q. Is there anything related to how long it took

22 to do any of these individuals?

23 A. No.

24 Q. So, for instance, let's assume say it's A&P.

25 Where is A&P based out of?

26 A. I believe they're in Richvale, near Durham.

1 Pretty close to Chico.

2 Q. So let's assume that you started with A&P.
3 You'd either have to fly all the way to Westwood and come
4 down, or fly to Palermo and fly all the way up to
5 Westwood; correct?

6 A. Correct.

7 Q. And either way, you're flying all the way
8 between Table Mountain or Richvale and Westwood; is that
9 correct?

10 A. I believe so. You're losing me.

11 Q. So what I'm trying to figure out this
12 eight-hour schedule, eight-hour day, between three lines
13 and with all your ferry time how much time they're
14 actually spending doing inspections?

15 A. Like I said, I'd hate to make assumptions,
16 because this doesn't mean they completed these circuits
17 these days.

18 Q. Well, you have the '18 -- or '17 inspection
19 there in front of you. If you can flip back to it.
20 It's, I believe, the first exhibit I showed you.

21 A. Okay.

22 Q. So did (WITNESS #6) finish the inspection of
23 the Caribou-Palermo that day?

24 A. Yes, he did the Caribou-Palermo that day.

25 Q. Nowhere on there it says what helicopter
26 company; correct?

1 A. Correct.

2 Q. No records as to the time spent actually
3 inspecting the Caribou-Palermo?

4 A. Not here, no.

5 Q. So talk to us about the mechanics of a
6 helicopter inspection itself, an air patrol, walk us
7 through how you do them.

8 A. How a troubleman would do them?

9 Q. Yes.

10 A. Troubleman would, obviously, utilize a
11 helicopter patrol to look for more obvious issues; right?
12 We're looking for broken insulators, damaged structures,
13 we're looking for ground erosion problems, encroachment.
14 Say somebody built something underneath our circuit that
15 shouldn't be there. That type of work. He'll fly, you
16 know, from sub to sub typically. Is that what you're
17 asking for?

18 Q. How high, how close, how fast?

19 A. I mean, that's -- there's lots of variables
20 there. We have -- you know, how high they fly is
21 dependent on the weather, the pilot, how comfortable the
22 pilot is flying close to the lines, the terrain around
23 it. You know, we have some structures that run right
24 down the valley, they're easy to fly right next to. We
25 have structures up on the Caribou, too, that are heavily
26 wooded and you can't get very close to them at all.

1 Q. How about the Caribou-Palermo line, how high,
2 how close, how fast would you be flying?

3 A. I'm not sure. I have never flown that line.

4 Q. Okay.

5 A. But, you know, the canyon has some interesting
6 wind patterns that I know it's difficult to fly in a lot
7 of times. I've long-lined up there a lot, but I've never
8 flown inside of a helicopter. So I don't have experience
9 there.

10 MR. NOEL: I think we've been going a little
11 over an hour. You ready to take a break?

12 THE WITNESS: I could use some water.

13 GRAND JURY FOREPERSON: Yes.

14 MR. NOEL: Let's take a 10- or 15-minute break,
15 and then we'll get this finished up.

16 GRAND JURY CLERK: Do we need to admonish?

17 MR. NOEL: We need the admonishment.

18 GRAND JURY FOREPERSON: (WITNESS #22), you are
19 admonished not to discuss or disclose at any time outside
20 of this jury room the questions that have been asked of
21 you or your answers until authorized by the Grand Jury or
22 the Court. A violation of these instructions on your
23 part may be the basis for a charge against you of
24 contempt of court. This does not preclude you from
25 discussing your legal rights with your own attorney.

26 (WITNESS #22), what I have just said is a

1 warning not to discuss the case with anyone except the
2 Court, your lawyer, or the district attorney.

3 THE WITNESS: Got it.

4 GRAND JURY FOREPERSON: Okay. Thank you.

5 THE WITNESS: Thanks.

6 (Break taken.)

7 GRAND JURY FOREPERSON: All the Grand Jurors
8 have returned, and we're ready to begin.

9 MR. NOEL: All right. Ready to proceed; back
10 on the record.

11

12 (Grand Jury Exhibit 193 was marked for identification.)

13

14 Q. (By MR. NOEL) (WITNESS #22), you have in front
15 of you what is marked as Exhibit 193.

16 A. Yes.

17 Q. Also displayed up here on the big board. What
18 do you see in that picture?

19 A. This is a C hook and a working eye from
20 structure 11 over 88.

21 Q. And do you see any problems with this picture?

22 A. Yes. It was taken because it was identified as
23 possibly having worn C hooks or working eyes or both.

24 Q. Was this, to your knowledge, identified in
25 either the '17 or '18 air patrols?

26 A. No, I'm not sure what circuit this is from.

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(Grand Jury Exhibit 183 was marked for identification.)

Q. Okay. How about the next one, 183, do you see that photograph?

A. No.

Q. Did they get out of order again?

A. 183?

Q. Yep.

What do you see in this picture?

A. Same scenario. Worn working eye, possibly C hook.

Q. Would this have been something you would have expected to have been picked up in the '17 or '18 air patrols?

A. I would hope it would be able to be seen from the air patrols.

Q. To your knowledge, assuming this is on the Caribou-Palermo line, was this picked up in the air patrol?

A. To my knowledge, it was not.

(Grand Jury Exhibit 184 was marked for identification.)

Q. Next up is 184. Do you have that photo in front of you?

1 A. Yes.

2 Q. Do you see any problems with that, what's
3 depicted in that photograph?

4 A. Same issue; possibly a worn working eye,
5 possibly worn C hook.

6 Q. Would that be something you'd expect to be seen
7 in an air patrol?

8 A. It would be -- I would hope it would be seen,
9 but it would be difficult.

10 Q. To your knowledge, was that documented in the
11 '17 or '18 air patrols, assuming this is the
12 Caribou-Palermo line?

13 A. To my knowledge, no.

14

15 (Grand Jury Exhibit 191 was marked for identification.)

16

17 Q. Next up is 191.

18 A. Yes, it is.

19 Q. Do you see a photo marked as 191?

20 A. Yes.

21 Q. Do you see a problem with that photograph?

22 A. Yes.

23 Q. What do you see?

24 A. This one's very damaged.

25 Q. Assuming that that's a tower on the
26 Caribou-Palermo line, would that be something you would

1 expect to be seen by an air patrol?

2 A. I would hope it would be seen.

3 Q. To your knowledge, assuming this was on the
4 Caribou-Palermo line, was that picked up in either '17 or
5 '18 aerial patrols?

6 A. To my knowledge, no.

7

8 (Grand Jury Exhibit 192 was marked for identification.)

9

10 Q. Moving on to 192. What do you see in the
11 photograph marked as 192?

12 A. This one's very difficult to make out, but it
13 looks pretty worn.

14 Q. And, again, assuming that's on the
15 Caribou-Palermo line, is that something that you would
16 expect to be noted, expect to be picked up during an
17 aerial inspection?

18 A. I would hope it would be picked up.

19 Q. To your knowledge, was this picked up, assuming
20 it's on the Caribou-Palermo line, during the 2017 or 2018
21 inspections?

22 A. To my knowledge, it wasn't.

23

24 (Grand Jury Exhibit 185 was marked for identification.)

25

26 Q. Next we have 185. Tell us what you see in that

1 photograph.

2 A. Same issues.

3 Q. And would that be something that you would
4 expect to see picked up in a aerial inspection?

5 A. Same answer; I would hope so.

6 Q. To your knowledge, was that problem discovered
7 during the --

8 A. To my knowledge --

9 Q. -- '17 or '18?

10 A. -- it was not.

11 Q. Assuming that it's on the Caribou-Palermo?

12 A. Correct.

13 Q. And this says that, on the type on there, that
14 it's 199?

15 A. Uh-huh. Yes.

16 Q. Is that correct?

17 A. That's what it says.

18 Q. And from this photograph can you tell anything
19 about which line, which transmission line, this is on?

20 A. No, not definitely.

21 Q. Now, you spent quite a few years in the Tower
22 Department; correct?

23 A. Correct.

24 Q. Pointing out this bracket, have you ever seen
25 one of those before?

26 A. Not to my knowledge, no.

1 Q. Do you have any idea of when or how that was
2 installed or why?

3 A. No idea. No, I've -- like I said, to my
4 knowledge, I've never seen something like that bolted on
5 to the end of an arm.

6
7 (Grand Jury Exhibit 186 was marked for identification.)

8
9 Q. Okay. Next up, 186, another view of 199. What
10 do you see in photograph 186, Exhibit No. 186?

11 A. The same as Exhibit 185.

12
13 (Grand Jury Exhibit 247 was marked for identification.)

14
15 Q. Now, 247?

16 A. Going to have to do some digging.

17 Q. Sorry.

18 A. Let me just use your screen. Are these paper
19 clipped?

20 Q. Yeah, those are paper clipped together. I'm
21 pretty sure pulled that out when we were pulling it.
22 Maybe we missed it. We can use the screen up here. We
23 have the screenshot of the exhibit with the exhibit tag
24 that's been filled out, dated, and signed by the
25 foreperson.

26 247, do you see anything, catches your eye, any

1 problems in this photograph?

2 A. No. It's real difficult to see.

3 Q. What about this gap right here, is that an
4 issue?

5 A. The gap, I don't understand "the gap."

6 Q. Between the top of the hook and the top of the
7 hole, all of that daylight that you can see through
8 there.

9 A. Oh, it's kind of hard to tell. I mean, we
10 could assume, but it's -- this picture is not very good
11 at all.

12 Q. Okay. Would that be an indication of wear?

13 A. Not always.

14 Q. Do you know how big that hole is supposed to
15 be?

16 A. No.

17 Q. Do you know how big that hook is?

18 A. As far as --

19 Q. In terms of at its apex, where the hook --

20 A. No, I'm not familiar with the dimensions of it.

21 Q. So let's assume that that hole is 1 1/8 of an
22 inch in diameter, and that hook at its apex right there
23 where it's making contact is 15/16 of an inch wide.

24 A. Uh-huh.

25 Q. Got that?

26 A. Yes.

1 Q. How is your math skills?

2 A. Normally would probably be better than it is

3 right now.

4 Q. $1 \frac{1}{8}$ minus $\frac{15}{16}$, do you know what measurement

5 that would be?

6 A. Let's see, $\frac{3}{16}$?

7 Q. Bingo. Does that gap look to be appreciably

8 larger than $\frac{3}{16}$?

9 A. It could. It's hard to tell.

10 Q. And do you know what tower this is on?

11 A. No.

12 Q. This has been identified previously as 35/281

13 on the Caribou-Palermo 115.

14 A. Okay.

15 Q. So is that something, would that gap be

16 something that would be looked at during an air patrol?

17 A. I don't know if so much the gap would, but the

18 shape; right? You can tell a lot more of the hole if

19 it's worn by the shape of the hole, not necessarily the

20 diameter of the hole. So --

21 Q. Go ahead.

22 A. We have several different structure types with

23 several different hole diameters. It's hard to say that,

24 if that hole, if you can see more or less than $\frac{3}{16}$ of an

25 inch, you have a problem.

26 Q. To your knowledge, did anybody tag this as a

1 problem during the '17 or '18 air patrols?

2 A. To my knowledge, no.

3

4 (Grand Jury Exhibit 139 was marked for identification.)

5

6 Q. Moving on to Exhibit 139.

7 A. See if I can find this one. Did you take half
8 of mine or what?

9 Q. No.

10 (Discussion off the record.)

11 Q. Okay. Well, we can just use the one on the
12 board. You have the exhibit tag up on the right.

13 Do you see any problems with that structure?

14 A. Hard to tell from the photos. I see that
15 insulator string isn't hanging exactly plumb, which may
16 or may not be an issue. No, it looks like it has those
17 extra pieces on the working eyes that you had in the
18 earlier photos. But I don't see any damaged insulators.

19 Q. What about the hanger holes and the hooks?

20 A. I mean, you can't see that one. The picture is
21 too bad. You can't.

22

23 (Grand Jury Exhibit 181 was marked for identification.)

24

25 Q. Okay. Moving on to 181.

26 A. I got it.

1 Q. So what do you see in 181?

2 A. What am I looking for?

3 Q. Any problems.

4 A. Nothing stands out to me.

5 Q. Okay. So let's look at the connection points

6 between the hooks and the holes again on this one. Do

7 you see a difference in this photograph from some of the

8 other ones that we've been looking at before?

9 A. No. Can you be more specific?

10 Q. Okay. First off, do you see those hanger

11 plates mounted on --

12 A. No, no hanger plates on this one.

13 Q. Do you see any light, any daylight, between the

14 top of the hook and the top of the hole --

15 A. Yes.

16 Q. -- on this tower?

17 A. Yes.

18 Q. On which one?

19 A. Both.

20 Q. Both of them?

21 A. You can see dirt in the one and then dirt in

22 the other, not so much daylight.

23 Q. Substantially less than some of the other

24 towers we've been looking at; correct?

25 A. It's a photo; it's hard to tell.

26 Q. Okay. But, I mean, you can best see the

1 daylight up here on the top, what would be the right
2 phase cross arm; correct?

3 A. What's the question?

4 Q. Well, you can best see the relationship between
5 the hook and the hole on the right phase?

6 A. Out of the two, yeah. Yes.

7 Q. How much daylight can you see in there?

8 A. I don't know like a -- you can't get
9 measurements off photos.

10 Q. Okay. I bet if we were talking about -- let's
11 talk about, used the word "phase," let's talk about the
12 phases of the moon. When we go back to say -- let's talk
13 about 247. How much of the moon would you be able to see
14 on this phase?

15 A. It's real hard to, it's really hard to tell. I
16 mean, I don't want to say the wrong thing here, because
17 we're talking about a different angle here. You're
18 looking at the sky.

19 Q. Okay. But ultimately we're looking at the
20 space between the hook and the hole; correct?

21 A. Right.

22 Q. And there's significantly less space between
23 the top of the hook and the top of the hole --

24 A. It would appear.

25 Q. -- in 181 than there is in 247?

26 A. It would appear from the photos that way, yes.

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(Grand Jury Exhibit 171 was marked for identification.)

Q. Let's move on to 171.

A. Got it.

Q. Same question. What do you see -- or do you see anything in this picture that would concern you?

A. It's hard to say, but no.

(Grand Jury Exhibit 187 was marked for identification.)

Q. Move on to 187. Do you see anything in this photograph that would concern you?

A. Yeah, these ones appear to have larger moons. That insulator is not plumb. Clear that might be a problem.

Q. Is there any reason why that space couldn't be seen from an air patrol?

A. Which space?

Q. The space between the top of the hook and the top of the hole.

A. Yeah. I mean, it's, it's all dependent on which structure, which -- where you're at, where you're at, how low you can fly near the structure. It's really hard -- the one thing we learn, it's hard to see the C hooks and the connection points from above the

1 structures.

2

3 (Grand Jury Exhibit 175 was marked for identification.)

4

5 Q. Okay. So this one's already been identified
6 as 35/281. Again, multiple pictures of the, of 35/281.

7 Move on to 175, another picture of 35/281,
8 another angle.

9 A. Got it.

10 Q. If you were flying this, if you were looking at
11 this, is there anything that would cause you concern,
12 anything that you would tag on this structure from what
13 you see in this photograph?

14 A. I'd get a closer look at those working eyes.

15 Q. Okay. To your knowledge, '17 or '18 was this
16 structure ever tagged?

17 A. To my knowledge, no.

18 Q. Go on to 187.

19 A. Share yours.

20 Q. Okay. Again, another view of 35/281. Is there
21 anything that you can see from this view that you would
22 tag?

23 A. Yeah, I would get a closer look at those
24 working eyes.

25 Q. How would you get a closer look?

26 A. Climbing. Climb the structure.

1 Q. Okay. When you're doing a helicopter patrol,
2 what kind of equipment are the towermen equipped with?

3 A. Towermen don't do helicopter patrols.

4 Q. I'm sorry, troublemen.

5 A. Troublemen? Cameras; cameras, iPads. So a lot
6 of times they'll take detailed photos with their -- you
7 know -- we have 50 times zoom digital cameras they can
8 get photos with.

9 Q. How about binoculars?

10 A. Yeah, and binoculars.

11 Q. Is it common to equip the troublemen doing
12 their air patrols with stabilizing binoculars?

13 A. Yes.

14

15 (Grand Jury Exhibit 188 was marked for identification.)

16

17 Q. Now we're on to 188.

18 A. Got it.

19 Q. What does it appear that 188 is to you?

20 A. What's that?

21 Q. What do you think 188 is? What do you think it
22 shows?

23 A. I think we're looking at the working eye again.

24 Q. Got it. And what do you see?

25 A. It looks like you should get a closer look at
26 it.

1 Q. This is a pretty close look; correct?

2 A. It's not as close as you can get.

3 Q. How do you get closer?

4 A. One thing we learned after, after finding these

5 is they're very deceiving until you pull them apart from

6 each other. So we changed out some of these that we

7 thought were significantly worn, to get them apart and

8 find it was just the nature of how they were sitting

9 together, the angle at which the photo was taken that

10 made it look like it was severely worn. So really the

11 only way to see exactly what's going on is to replace it.

12 Q. To your knowledge, when you've been a

13 transmission line supervisor at Table Mountain, have you

14 replaced any of these hooks?

15 A. Have I replaced any C hooks?

16 Q. Yeah. Have any of the C hooks been replaced?

17 A. Yeah, we replace C hooks every time we replace

18 insulators.

19 Q. On the Caribou-Palermo?

20 A. Probably, yes.

21 Q. To your knowledge?

22 A. To my knowledge.

23 Q. I don't want you to speculate.

24 A. To my knowledge, I mean, based on that 2017

25 findings that (WITNESS #6) had in September, those two

26 structures he wrote up were worked. So --

1 Q. But none of these conditions were tagged?

2 A. Right. This is a -- one thing we also learned
3 after this is --

4 Q. Let's not talk about what we learned after,
5 let's talk about -- I don't want to get into that stuff,
6 what you learned from after; okay? Let's move on.

7 176.

8

9 (Grand Jury Exhibit 176 was marked for identification.)

10

11 A. Got it.

12 Q. Another view of 35/281?

13 A. Correct.

14 Q. From this view, anything that would have caused
15 you concerns?

16 A. That hole diameter looks to be larger than the
17 other arm over there. And it does look worn.

18

19 (Grand Jury Exhibit 261 was marked for identification.)

20

21 Q. All right. I'm showing you a map marked as,
22 it's an Exhibit 261. This is a map showing, a Google
23 Earth map, showing the locations of the transposition
24 towers on the Caribou-Palermo line starting at 20/160 and
25 going to 35/281.

26 Are you familiar with that section?

1 A. Sure. Yes.

2 Q. Okay. So aerial patrols, you were talking
3 about all the things that go into how close, how low the
4 helicopters can fly. Can you repeat those for us again
5 so we can remember them?

6 A. Can you repeat the question?

7 Q. What factors go into determining how, how close
8 the helicopters can fly, how low the helicopters can fly?

9 A. Probably how comfortable the pilot is flying in
10 the conditions that are identified that day, tree lines,
11 other circuits. We can't get too close to a circuit if
12 there's another circuit behind us. You've got to have a
13 constant view of the surrounding circuits. Canyon winds
14 play a part. A lot of times you can only fly one
15 direction. The pilot won't be comfortable flying into
16 the wind or along with the wind. So there's several
17 factors.

18 Q. Are you familiar with Google Earth?

19 A. Yes.

20 Q. Do you use Google Earth regularly for your
21 employment?

22 A. Yeah.

23 Q. And the different functions of Google Earth?

24 A. I don't know, was that --

25 Q. Familiar with all the functions?

26 A. No, I'm --

1 Q. Some of the functions?

2 A. I know you can see the earth.

3 Q. Well, you can plug -- did you ever plug GPS

4 coordinates into Google Earth?

5 A. Yes.

6 Q. Now, going back to where we started, we talked

7 something about a transmission object list; correct?

8 A. Uh-huh.

9 Q. Remember that?

10 A. Yep.

11 Q. And the transmission object list you said lists

12 all the structures on the line; correct?

13 A. Correct.

14 Q. What else does the transmission object list

15 tell you about each structure?

16 A. Can you be more specific?

17 Q. Doesn't it give the GPS coordinates of each

18 structure?

19 A. Yes.

20 Q. So you can use those GPS coordinates and plug

21 those into Google Earth to plot all the structures on the

22 line?

23 A. Okay.

24 Q. Is that correct?

25 A. I'm sure you could.

26 Q. Do you guys do that?

1 A. No, we have our own GIS system which has all
2 these already on the map, so we don't need to get GPS
3 coordinates off our object list to do that.

4
5 (Grand Jury Exhibit 261A was marked for identification.)
6

7 Q. Okay. All right. So what I want to do, I want
8 to start at the top of 21/160. Do you see -- the
9 photograph should be 261A, it's in that
10 paper-clipped-together packet. Should be at the bottom.

11 A. Got it.

12 Q. Is -- now, this is a closeup of 2060 -- 20/160,
13 I'm sorry. Are you familiar with the tower?

14 A. Yes.

15 Q. You said earlier that you're also, part of your
16 job is the vegetation management?

17 A. No.

18 Q. Okay. Who runs vegetation management for
19 transmission lines?

20 A. We have a different Vegetation Management
21 Department with their own leads.

22 Q. Okay. Do you do any part of inspections for
23 vegetation management for transmission lines?

24 A. They do their own inspections.

25 Q. Okay. What type of inspections?

26 A. Do they do? I'm not familiar with.

1 Q. Okay. Well, the point is -- we're looking at
2 261A. Go to 261B. That would be -- what happened to
3 261C?

4 A. I got it.

5
6 (Grand Jury Exhibit 261B was marked for identification.)

7
8 (Grand Jury Exhibit 261C was marked for identification.)

9
10 (Grand Jury Exhibit 261D was marked for identification.)

11
12 Q. 261C and 261D. Look at those. And can you
13 tell me what kind of -- do you see any conditions on
14 there that would hinder a pilot's ability to get in and
15 get a closeup view of 20/160?

16 A. I'm not certain on what you're asking.

17 Q. Well, you said that the things that go into
18 determining, the factors that go into determining how
19 close and how low the pilot can fly are -- basically my
20 summary of what you said would be topography and
21 meteorology; is that correct?

22 A. Yeah. Well, the first thing I think is how
23 comfortable the pilot is.

24 Q. Okay. So you employ helicopters that do this
25 for you all the time; right?

26 A. Correct.

1 Q. If -- you're flying these patrols constantly;
2 correct?

3 A. Correct.

4 Q. And in addition -- what other uses do you have
5 for helicopters besides flying in the aerial patrols?

6 A. They do lift work for us, also.

7 Q. What's lift work?

8 A. So they're either transporting personnel or
9 material by long-line.

10 Q. What about non-routine patrols?

11 A. They do those, too, which is pretty much an air
12 patrol.

13 Q. Okay. What's the difference between a routine
14 patrol or an annual patrol and a non-routine patrol?

15 A. A non-routine patrol is when you have a
16 problem, say a relay, maybe a circuit was struck by
17 lightning and it momentarily went out, you'll do a
18 non-routine air patrol to try to find that problem.

19 Q. Is it common to have to do non-routine air
20 patrols after storms?

21 A. It could be.

22 Q. Are the pilots up and flying the canyon when
23 problems occur during the wintertime?

24 A. They can be. It's very dependent on the
25 conditions.

26 Q. But your air patrols are being done, at least

1 on the Caribou-Palermo, in August or September; is that
2 correct?

3 A. They have been last few years, yep.

4 Q. Okay. So do you see anything around 160 that
5 would hinder a pilot's ability to get in low and close to
6 take a closeup look and for your troublemen to be able to
7 look at the connectors, the cold end hardware, the hooks
8 in the holes?

9 A. Like I said, topography I would say.

10 Q. Okay. What about the topography?

11 A. Well, it's very hard to tell by this flat image
12 here, but that vegetation on the right-hand side, those
13 are trees and they're very tall.

14 Q. Well, Vegetation Management makes sure that the
15 trees aren't a danger to the line; correct?

16 A. They aren't a danger to the line, but you can't
17 -- they're on the side of the line where the helicopter
18 can't drop down below them. And this hill goes up very
19 steep. And there's two circuits to the uphill part of
20 this, too.

21 Q. Right. But off here to the right, on the
22 canyon side, you've got lots of wide open air; correct?

23 A. Have you been out to this location?

24 Q. Doesn't matter whether I've been there or not.

25 A. Okay. No, it's -- what Google Earth, it takes
26 a flat image and contours it to look like it's a hill,

1 but these could be 40-, 50-, 60-foot tall trees.

2 Q. Okay.

3 A. So I know, I've been here, and there's, there's
4 definitely vegetation downhill from here. So I'd hate to
5 assume on whether the pilot can get down low over there
6 or not based on this here.

7 Q. Well, the law mandates that the trees not be a
8 danger to the power line; correct?

9 A. Correct.

10 Q. So the trees can't be taller than the power
11 line?

12 A. Oh, they can be taller than the power line.

13

14 (Grand Jury Exhibit 261E was marked for identification.)

15

16 Q. Okay. Let's move on, and do the same thing
17 with 24/199. Picture 261E, which shows the location of
18 24/199.

19 A. Got it.

20

21 (Grand Jury Exhibit 261F was marked for identification.)

22

23 (Grand Jury Exhibit 261G was marked for identification.)

24

25 (Grand Jury Exhibit 261H was marked for identification.)

26

1 Q. And then we have 261F, shows it from the south;
2 261H, from the north; then 261G from the east.

3 So do you see anything in these photographs
4 that would hinder the ability of your troublemen during
5 an aerial patrol to get down to a level where they could
6 actually look at the hooks in the holes?

7 A. Like I said, it's difficult to tell from here,
8 but -- and I don't want to assume on the pilot's
9 abilities. And, again, those are trees, those aren't
10 bushes.

11
12 (Grand Jury Exhibit 261I was marked for identification.)

13
14 (Grand Jury Exhibit 261J was marked for identification.)

15
16 (Grand Jury Exhibit 261K was marked for identification.)

17
18 (Grand Jury Exhibit 261L was marked for identification.)

19
20 Q. Same questions with regard to 27/222. Let's
21 look at 261L, 261M -- I'm sorry -- 261I through 261L,
22 photographs of the Google Earth images 27/222.

23 What do you see that would hinder the pilot's
24 ability so that your troublemen could not get in and take
25 a look at the hooks in the holes?

26 A. I'm not, I'm not sure what the question is.

1 Q. Well, do you see anything that would hinder
2 their ability? We're talking about why aren't your
3 people seeing those issues with the hooks in the holes.

4 A. Okay. So, yeah, I mean, like I said, it's hard
5 to tell on this. And I don't know -- I'm not a pilot, I
6 don't know how to fly a helicopter, and I don't know how
7 comfortable he would be flying to these various
8 locations.

9 Q. I guess the question then would be, if you're
10 in charge of inspecting this line, this hundred-year-old
11 line, and making sure that this line is maintained and
12 repaired correctly, why would you hire pilots that aren't
13 going to be able to put your people, or won't put your
14 people in a position where they can actually take a look
15 at that?

16 A. I'm -- it could be a safety issue. You know,
17 might not be -- there might not be a pilot out there who
18 is comfortable enough to put our employees in, and their
19 own lives, at danger to try to get to a certain vantage
20 point.

21
22 (Grand Jury Exhibit 236 was marked for identification.)
23

24 Q. Let's move on to -- I guess this is Exhibit
25 236. This is from Exhibit 236. This is the 2009
26 Inspection Report of 27/222. Looks like the trees are

1 kept lower than the transmission lines; is that true?

2 A. It's hard to tell. Those look like -- I'm not
3 sure those are even trees. Those could be bushes.

4

5 (Grand Jury Exhibit 261M was marked for identification.)

6

7 (Grand Jury Exhibit 261N was marked for identification.)

8

9 (Grand Jury Exhibit 261-O was marked for identification.)

10

11 (Grand Jury Exhibit 261P was marked for identification.)

12

13 Q. Okay. Let's move on to 32/260, 261M, N, O, and
14 P. Looking at those photos, same question I've been
15 asking, can you see anything that would hinder a pilot's
16 ability to get your people in a position where they could
17 actually see and review the hooks in the holes?

18 A. Same answer I've been giving, it's hard to tell
19 on this.

20

21 (Grand Jury Exhibit 261Q was marked for identification.)

22

23 (Grand Jury Exhibit 261R was marked for identification.)

24

25 (Grand Jury Exhibit 261S was marked for identification.)

26

1 Q. Finally, let's go to 281 -- 261P through T --
2 S, I'm sorry.

3 Do you see anything that would hinder your
4 pilot's ability to get your people in to actually take a
5 look at that tower?

6 A. Same answer, it's hard to determine.

7 Q. Well, what's the difference between 35/281 and
8 the other four towers that we looked at?

9 A. What's the difference?

10 Q. Right.

11 A. Are you referring to the vegetation?

12 Q. Physically the difference.

13 A. That is a two dimensional photo. It's hard to
14 tell where the other circuits are and in relationship to
15 the hillside. I mean, we're asking to do a lot of
16 speculating on --

17 Q. First off, is 281 in the mountains?

18 A. Is it in the mountains?

19 Q. No. Yes.

20 A. Yeah, it's up the Feather River Canyon.

21 Q. Okay. What area is 281?

22 A. This is off Big Bend Road.

23 Q. Right. This is Big Bend. This is down at lake
24 level; correct?

25 A. No.

26 Q. So we're not up on mountain peaks anymore;

1 right?

2 A. The terrain is not much different, if that's
3 what you're getting at.

4 Q. Okay.

5 A. We are very far from the lake here.

6 Q. So, so you're saying that it's similar train
7 and that would impede your pilots from --

8 A. Yeah, I know this structure's pretty difficult
9 to access by foot.

10 Q. Well, it's right off the main street, isn't it?
11 Here's Big Bend Road. Isn't that Big Bend Road up here?

12 A. Yep.

13 Q. That's a public, public roadway?

14 A. Right.

15 Q. And then there's a dirt road that goes right
16 out to the structure, and right at the base of the
17 structure. So -- isn't that correct?

18 A. Yeah. So something that our design engineers
19 and folks in maybe our headquarters in San Ramon have
20 learned, that it's very difficult to tell access and
21 topography from this versus what's really out there. I
22 feel like that's what we're doing. I hear it all the
23 time, "Well, it's right off the road," but it's 200 foot
24 up an 80-degree hill.

25 Q. And you said the other lines in this
26 photograph, that's 261S, you can very clearly see the

1 other lines; correct?

2 A. Yes, you can.

3 Q. So what is there to the left that would affect
4 the ability of a pilot to get in and be able to see the
5 wear?

6 A. I'm not sure; I'm not a pilot. Those are
7 trees. I mean, it's very difficult to tell from this
8 image.

9 Q. How high above the lines are your pilots, are
10 your troublemen flying?

11 A. It's dependent. We go as low as we can.

12 Q. And how low is that?

13 A. Sometimes you can fly underneath the bottom
14 phase on a dual circuit tower if you wanted to. Other
15 times you don't have that option.

16 Q. How fast are they going?

17 A. There's no set speed. It's dependent on the
18 pilot. We go as slow as he can go.

19 Q. How long is the Caribou-Palermo line?

20 A. I'm not sure.

21 Q. Does the paperwork, the inspection report, tell
22 how long, how far that -- how long that line is?

23 A. It's 330 towers on the canyon side of the Big
24 Bend, and I believe 130 towers on the Big Bend to Palermo
25 section. So --

26 Q. Okay.

1 A. Probably about 460 towers.

2 Q. What is it in mileage?

3 A. I'm not sure.

4 Q. If I can approach you real quick, showing you

5 the Transmission Line Inspection Data Sheet from the 2017

6 aerial patrol, does that list the length in miles of the

7 Caribou-Palermo line?

8 A. It has 54.8 on here. Oftentimes, we found that

9 these aren't very reliable. I'm not sure where they pull

10 that information from.

11 Q. So your troublemen are providing that

12 information; correct?

13 A. No.

14 Q. That handwritten information that says 54.8

15 miles?

16 A. That's not handwritten.

17 Q. Right there.

18 A. He's utilizing that printed number right there.

19 Q. Okay. So you're telling us that the

20 pre-printed information that PG&E provides is inaccurate?

21 A. I think a lot of times, say, the line

22 configuration changes and maybe this, however this is

23 pulling this information, is now different than it had

24 been historically. So sometimes it's very accurate and

25 sometimes we've seen it where it's not accurate. But as

26 far as the patrol, it doesn't seem to be too relevant to

1 getting the patrol done.

2 Q. How long does it generally take your troublemen
3 to patrol the Caribou-Palermo line from the air?

4 A. I'm not sure.

5 Q. Well, if you had an eight-hour day and you're
6 patrolling three lines from Westwood to Caribou, Butt
7 Valley to Caribou, and then Caribou to Palermo, how much
8 time is there in a day to patrol the Caribou-Palermo?

9 A. I'm not sure. I'm not sure how much of those
10 other circuits he completed, so it's hard to speculate.

11 MR. NOEL: I think I'm done.

12

13 EXAMINATION

14

15 BY MR. FOGG

16 Q. Good afternoon. Good morning, almost good
17 afternoon, (WITNESS #22). My name's Nicholas Fogg, I'm a
18 Deputy Attorney General. A couple questions.

19 Have you done an air patrol before?

20 A. Yes.

21 Q. How many have you done?

22 A. Probably around a dozen.

23 Q. How many ground inspections have you done?

24 A. None.

25 Q. You saw some pictures earlier of worn C hooks
26 and hanger plates. Would you expect that type of problem

1 to be identified during a ground inspection?

2 A. I would hope so, but, like I said, it's hard to
3 see those working eyes from that angle.

4 Q. So, and the question I'm about to ask, let's
5 limit it to before the Camp Fire. Is the inspection
6 program laid out in the *ETPM* meant to find problems like
7 worn C hooks?

8 A. Yes.

9 Q. What -- of the different types of inspections
10 and patrols laid out in the *ETPM*, which, in your
11 understanding, which is meant to find a worn C hook?

12 A. Which is your best opportunity to find a worn C
13 hook?

14 Q. Sure. Let's say that.

15 A. It's hard to say. Really, like depending on
16 the topography, again, right, like in the canyon you can
17 be at some locations on the ground and be eye level with
18 the C hooks, that which would obviously be a great time
19 to be able to see that. But it goes the other way, too,
20 where some locations you can get really down low in an
21 air patrol and find it. You know, this, these
22 tramposition towers, there's only 13 of them on the
23 Caribou-Palermo out of the 456 structures on there. So,
24 you know, that being said, it wasn't like it was
25 something that we came across very often. And it was a
26 very small sample of structure types that this kind of,

1 these photos even came from.

2 Q. Do you know the Tower Department was conducting
3 any climbing inspections on the Caribou-Palermo line in
4 the months before the Camp Fire?

5 A. Yes, they were.

6 Q. Can you tell us more about those inspections?

7 A. To what I know, they, they were asked to
8 identify about I think six different circuits in the
9 north, which is Sacramento up over to Eureka that we
10 would like to do detailed climbing inspections on with
11 the Tower group.

12 Q. Were you asked? Or the Tower Department was
13 asked?

14 A. The -- my boss asked me to give input, but
15 ultimately it was him and the tower supervisors making
16 that decision.

17 Q. So who is your boss and who is the Tower
18 Department supervisor?

19 A. (EMPLOYEE #11) is my boss and (EMPLOYEE #14) is
20 the tower supervisor.

21 Q. (WITNESS #22), those are the questions I have.
22 The Grand Jurors will have a chance to ask questions.
23 Before they do, I have to give the reminder on hearsay
24 admonishment that you've heard before.

25 He mentioned hearsay where people were asked to
26 do climbing inspections. Please disregard that hearsay

1 coming from (WITNESS #22).

2 MR. NOEL: Can I follow-up with one?

3 MR. FOGG: Sure.

4 MR. NOEL: Do you know what triggered the all
5 of the sudden 2018 climbing inspections?

6 THE WITNESS: No.

7 MR. FOGG: Do any of the Grand Jurors have
8 questions for (WITNESS #22)?

9 (WITNESS #22), we'll take a second to review
10 these with the foreperson, then we'll ask you questions.

11 (Counsel and Grand Jury Foreperson confer.)

12

13 EXAMINATION

14

15 BY MR. NOEL

16 Q. Okay. (WITNESS #22), these are questions from
17 some of the jurors.

18 If both the Tower Department and the line
19 Transmission Department are responsible for inspection of
20 cold end hardware, who is responsible for making the
21 decision to actually replace or leave in place cold end
22 components noted by one or the other as worn?

23 A. Would you repeat that?

24 Q. If both the Tower Department and the line
25 Transmission Department are responsible for inspection of
26 cold end hardware, who is responsible for making the

1 decision to actually replace or leave in place cold end
2 components noted by one or the other as worn?

3 A. Okay. So if the Tower group or the Line group
4 identifies what they think is a worn working eye or C
5 hook or yolk plate or a Y ball, then that generates a tag
6 right there. They're actually the ones doing it. We
7 don't get identified issues and kick them back, because
8 they're not a problem typically. Does that question --
9 the person doing the inspection is the one who creates
10 the notification.

11 Q. Okay. But who makes the decision whether or
12 not you're going to replace it and how quickly?

13 A. That person. Well, you know, they're, like I
14 said before, they'll denote a priority, right, if they
15 think it's an E tag, which is 12 months; a B tag, which
16 is 90 days; or an A tag, which is right now. Then it
17 would go to a gatekeeper, which historically was me, now
18 we have a gatekeeper department where it's several folks
19 with a line that, reliability experience, and they're the
20 ones who, they go over the photos, the documentation, and
21 assign the priority.

22 Q. When did that change occur?

23 A. Relatively lately. After the Camp Fire.

24 Q. In your training, were the standard dimensions
25 of the cold end connector hardware ever mentioned as a
26 means of determining where on hanger eyes and C hooks?

1 A. No. There is no standard. That's the issue.
2 We have some working eyes that are larger than others.
3 We have some that are chamfered. Some of the working
4 eyes are 1/8 inch thick, some are 3/8 thick, 1/2 inch
5 thick. It all depends on the structure type.

6 Q. If aerial inspection patrols are so dependent
7 on pilot comfort for perspective and detail, do you have
8 a professional opinion as to how reliable such
9 inspections are in the Feather River Canyon?

10 A. Yeah. You know, one thing that, you know, I
11 wasn't hardly familiar with being in Tower Department was
12 the air patrols. But after I came over to this group, it
13 was very shocking what these troublemen can find on an
14 aerial patrol. I mean, it blew me away. They find some
15 cracked insulators; right? It's hard to see from
16 anywhere, let alone from a moving helicopter. But that
17 sort of, I guess, bought me into the whole aerial patrol
18 part of it. Between the troublemen's experience and
19 skill, the pilot's experience and skill, and knowing what
20 to look for and where, these guys can see some pretty
21 small, minute issues.

22 Q. With insulators; correct?

23 A. With anything.

24 Q. Okay. Well, you had talked about the post-fire
25 inspections; correct?

26 A. I had talked about the post-fire inspections?

1 Q. Yeah, several times many of those pictures were
2 post-fire inspections, and you brought up and said,
3 "Well, we found these post-fire," and you were going to
4 talk about what you learned from them, and I told you no;
5 right? Do you know how many problems were found on the
6 Caribou-Palermo line during the post-fire inspections?

7 A. No.

8 Q. Do you have a range?

9 A. No. I have no idea.

10 Q. But over and over and over again, worn C hooks,
11 worn hanger holes were found that weren't seen
12 beforehand; correct?

13 A. Right. Once we learned the configuration where
14 this tends to happen, it was a lot easier to determine
15 where they could be issues.

16 Q. As a supervisor, how do you make sure that
17 patrols are actually happening?

18 A. Anymore with technology, they can't not happen;
19 right? These helicopters are tracked every, every minute
20 of the day from when they're flying to when they land
21 again. So that's all documented, their routes, as far as
22 air patrols.

23 Q. How about for ground?

24 A. Ground patrols? The way we do it is basically
25 we do verifications. We'll take a sample, a size of
26 locations that were to be inspected by the troublemen,

1 and we'll go out there and do our own inspection to
2 ensure that, you know, we don't see anything that they
3 might have missed.

4 Q. Have you ever experienced a troubleman
5 falsifying inspection documents?

6 A. No.

7 MR. NOEL: That's all.

8 Any further?

9 We have one more.

10 (Counsel and Grand Jury Foreperson confer.)

11 Q. (By MR. NOEL) All right. We do have one more.

12 If there is no standard for components, how do
13 you determine wear or if it should be replaced? Is there
14 a log that identifies which size component is used for a
15 specific tower?

16 A. Yeah, all of our towers have prints. I might
17 have mentioned that, you know, briefly. We do have
18 basically, you know, whether it be arm dimensions, hole
19 dimensions, how far a hole is from another hole, steel
20 thicknesses, that type of information. And, really,
21 we're looking for any kind of wear; right? It's not
22 necessarily -- if a component's wearing out, it's going
23 to be kind of obvious that it's wearing out because, you
24 know, material will be missing. That's going to be the
25 easiest way to tell. It's not so much a material loss
26 percentage. That, that's how we identify the priority,

1 but not necessarily if something's wearing or not.

2 Q. But how can you tell -- well, going back to the
3 *ETPM* that was in front of you, and it sets up standards
4 -- you were looking at the May 2016 *ETPM*.

5 A. Yeah.

6 Q. And the table that talks about things --

7 A. Material loss?

8 Q. Material loss; 30 percent, 50 percent.

9 A. Right.

10 Q. How can you determine that if you don't know
11 the specifications of the parts?

12 A. Well, it's for tower steel; right? This is
13 what this is indicating. So say I have a piece of steel
14 that's 3/8 thick, and a portion of it is worn down to
15 3/16, I mean, you're the math guy, how much is that?

16 Q. I'm not a math guy, believe me.

17 A. You know, that would make it 50 percent wear.

18 Q. Okay.

19 A. So you don't need to know how -- you know, you
20 don't need to know specifics, you've got the dimensions
21 right there, so you can determine what's missing.

22 Q. So you know that that crescent-shape, half-moon
23 shape, above -- between the hook, the top of the hook and
24 the top of the hole, should be 3/16 of an inch?

25 A. If you know the hole diameter, yes.

26 Q. So that's available to you; correct?

1 A. Sometimes, yeah. So, you know, we got -- we
2 bought this circuit from another utility back in the
3 '20s, so we may or may not have drawings for it.
4 Anything we build nowadays, within the last 20 years,
5 we'll have these dimensions.

6 MR. NOEL: Do you happen to remember -- do you
7 have the full list?

8 GRAND JURY CLERK: I think what you're looking
9 for is 259. This one?

10 MR. NOEL: Yep.

11

12 (Grand Jury Exhibit 259 was marked for identification.)

13

14 Q. (By MR. NOEL) I'm putting up on the board in
15 front of you Exhibit 259. If I can ever get it
16 right-side up.

17 Do you recognize what 259 is?

18 A. It's a print.

19 Q. A print of what?

20 A. Appears to be a transposition arm for an SB
21 tower type.

22 Q. Let's assume this is the print for the
23 transposition towers on the Caribou-Palermo line
24 originally done in 1921.

25 A. Uh-huh.

26 Q. You have access to these; correct?

1 A. Now we do, yes.

2 Q. Okay. So, for instance, that hanger hole right
3 there says it should be 1 1/8 inch. Okay. So you
4 possibly could have known the dimensions of what that
5 hanger hole is supposed to be?

6 A. Right.

7 Q. And this is 259. Do you recognize what's on,
8 what 259 depicts?

9 A. Some hardware dimensions.

10 Q. And specifically down here in the lower right,
11 do you know what that is?

12 A. C hook.

13 Q. That defines the C hook as 15/16 of an inch at
14 its apex; right?

15 A. That particular one, yes.

16 Q. So you've never seen this before?

17 A. No, I've never seen this.

18 Q. You were put in charge of this line, of the
19 maintenance and inspection of this line, but you're not
20 familiar with the components and how they're supposed to
21 fit together and their specs?

22 A. This is probably a spec from a 1921 C hook,
23 which may or may not be different. These drawings
24 weren't discovered until December or January of this
25 year.

26 Q. Well, how do you know that?

1 A. How do I know that?

2 Q. Yeah. How do you know when these documents
3 were discovered?

4 A. Oh, I guess it's hearsay.

5 Q. So --

6 A. You know, an interesting thing about this,
7 though, is we can't -- you know -- it's great that you
8 have a hole diameter and a C hook dimension, but we can't
9 go out to the cold or hot end of a circuit to take
10 measurements.

11 Q. But it would help to know what those
12 measurements were supposed to be in making a
13 determination as to 30 percent, 50 percent, or higher
14 wear; correct?

15 A. Yeah, it could help, but really it's the shape;
16 right? I mean, that's -- you can have all the dimensions
17 in the world, but if your round hole is still round, it's
18 probably not wearing out.

19 Q. And those holes weren't round?

20 A. No.

21 MR. NOEL: I have nothing further.

22 Anything? Any further follow up?

23 Dismiss the witness?

24 GRAND JURY FOREPERSON: Yes.

25 You have a final admonishment that you are not
26 to discuss or disclose at any time out of this jury room

1 the questions that have been asked of you or your answers
2 until authorized by the Grand Jury or the court. A
3 violation of these instructions on your part may be the
4 basis for a charge against you of contempt of court.
5 This does not preclude you from discussing your legal
6 rights with your own attorney.

7 (WITNESS #22), what I have just said is a
8 warning not to discuss this case with anyone except the
9 Court, your lawyer, or the district attorney.

10 THE WITNESS: Got it.

11 GRAND JURY FOREPERSON: Okay. Thank you.

12 THE WITNESS: Thank you.

13 GRAND JURY FOREPERSON: Thank you for your time
14 today.

15 THE WITNESS: Thank you.

16 MR. NOEL: Thank you, sir.

17 THE WITNESS: Thank you guys.

18 MR. NOEL: Lunch break until 1:30. And we have
19 one more witness this afternoon.

20 (Lunch break taken.)

21 [DISCUSSION OMITTED.]

22 [ROLL CALL OMITTED.]

23 [DISCUSSION OMITTED.]

24 GRAND JURY FOREPERSON: Mr. Wines, before you
25 get seated, we'd like to swear you in.
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JASON WINES

having been called as a witness in
the matter now pending, having been first
duly sworn, testifies as follows:

THE WITNESS: Yes, I do.

GRAND JURY FOREPERSON: Thank you. Have a
seat, please.

EXAMINATION

BY MR. NOEL

Q. Please state your full name, spelling your last
for the record.

A. Jason Wines, W-I-N-E-S.

Q. Lieutenant Wines, by whom are you employed?

A. Butte County District Attorney.

Q. In what capacity?

A. As an investigative lieutenant.

Q. Are you a peace officer?

A. I am.

Q. How long have you been a peace officer?

A. Almost 25 years, broken service.

Q. Could you walk us through your career, when you
started to where you are now as an investigative
lieutenant.

1 A. I started in 1994 with the Butte County
2 Sheriff's Office. I worked with them until 1997, when I
3 lost my mind and decided to join the military. I did a
4 six-year term in the military, and in 2003 came back to
5 the sheriff's office. And then in 2005 I was asked to
6 come to the District Attorney's office, where I've been
7 since, working in various capacities.

8 Q. Would you like to tell the jurors what you did
9 with the military?

10 A. I was a Navy SEAL.

11 Q. Where do you live -- or where did you live on
12 November 8th?

13 A. 1843 Dean Road in Paradise.

14 Q. How long have you lived in Paradise?

15 A. I was born there. Grew up in the town called
16 Hayfork in Trinity County, then I moved back with my
17 family in 2003 when I got out of the military.

18 Q. So I'm guessing you didn't live in Paradise
19 when you were a Navy SEAL?

20 A. No.

21 Q. Not a whole lot of oceans near Paradise?

22 A. No.

23 Q. What year did you come back from the Navy?

24 A. 2003.

25 Q. Okay. And you've lived in Paradise, or lived
26 in Paradise from that point on to November of 2018?

1 A. Yes.

2 Q. Have other family members and friends living in
3 Paradise?

4 A. Yes.

5 Q. Do you use, in the course of your employment,
6 Google Earth?

7 A. I do.

8 Q. Can you explain for us your experience using
9 Google Earth?

10 A. It's a -- Google owns the system. It's
11 basically software that takes satellite imagery, and you
12 can navigate the globe, find different locations. And
13 the resolution's quite good, and you can see huse
14 descriptions, sometimes even vehicle descriptions,
15 street. You can zoom in, see the street and see the
16 color of a building. Very useful tool to navigate the
17 country, or different countries.

18 Q. In preparation for your testimony, did I ask
19 you to put together a Google map of the Paradise area?

20 A. You did.

21 Q. And did you do so?

22 A. I did.

23 Q. What type of information did you include in
24 that map?

25 A. Generic pin marks basically where my house was,
26 my neighbors were, friends and family that had lost their

1 homes.

2 Q. Explain to us how you went about that process
3 in Google Earth.

4 A. Most of it I can go from just an aerial view,
5 which is like a bird's-eye view looking down, and basing
6 it off of street corners and different landmarks I know
7 right where the house is. Sometimes if it was hard to
8 see because of trees, I would use what's called street
9 view, which is like you're looking at the front of the
10 house, to find my landmarks, to be able to put a pin on
11 it, or best representation of where I knew that house to
12 be.

13 Q. So I'm showing you a map of Paradise. Do you
14 recognize this map?

15 A. Yes. Just to clarify, what I have here is a
16 duplicate --

17 Q. Yes.

18 A. -- up there?

19

20 (Grand Jury Exhibit 290 was marked for identification.)

21

22 Q. I'm sorry. This should be exhibit number --
23 and I forgot to get my exhibit list out before I started
24 -- 290.

25 A. Yes.

26 Q. You have 290 in front of you?

1 A. I do.

2 Q. 290 up on the board?

3 A. Yes.

4 Q. What is Exhibit 290?

5 A. That is an aerial view of the majority of the
6 town of Paradise. And it's marked with a pin, J and D
7 Wines, for Jason and Debbie Wines. And that is where my
8 house is located.

9 Q. Walk us through the process of how you got the
10 pin to that specific location.

11 A. Once I found the geographic location, there's a
12 tool actually in Google Earth that you can click on the
13 pin, and you can just move the pin to where you want it,
14 and then you can label it whatever you choose to.

15 Q. So as you started filling out this map, you
16 started pinning locations. You said you'd find them on
17 the map and pin them. What's the significance of each of
18 those pins?

19 A. These are the addresses, the locations rather,
20 of family and friends that I know lost their house during
21 the fire.

22 Q. So people, persons you're personally familiar
23 with and knew where they lived at the time of the fire?

24 A. Yes.

25 Q. And subsequently lost their houses?

26 A. Yes.

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(Grand Jury Exhibit 291 was marked for identification.)

Q. Okay. Let's move on to 291. Do you recognize Exhibit 291?

A. I do.

Q. What is 291?

A. That looks like the most recent Google image that I've seen of my house.

Q. Most recent in what terms?

A. We just started building a pool in -- well, we started in December of 2017, but it's a long process. So they finally dug the hole and got the concrete in around March, April time frame. And so I can see that the hole up there is where it's still in concrete, hasn't gone to plaster yet.

Q. You can always get up and use the board. You know how to use all the functions on this board?

A. No, I don't.

The light gray area that appears to be a pit, that is the pool that's still in concrete. I know it hasn't gone to plaster yet because the plaster was a bluish hue, so I know it was prior to July.

Q. Does Google Earth have a function that allows you to look at the same picture from different years?

A. Yes. It has a historical feature. Every time

1 Google updates their maps they don't delete the old map,
2 so you can actually go in and do a timeline back to the
3 very original photo that Google took of your property.

4 Q. So this photograph, Exhibit No. 290 -- 291, I'm
5 sorry, is pre-fire, pre-November 8th, 2018?

6 A. Correct.

7 Q. Now I want you to walk us through the morning
8 of November 8th, 2018. Start around 7:00 a.m., tell us
9 where you're at, what you were doing.

10 A. Normally I leave the house about 5:00 o'clock,
11 but on this morning the office needed to borrow my
12 utility trailer to move boxes. So I was sitting back
13 home, drinking some coffee, talking with neighbors at
14 around 7:00 o'clock, hooking up my utility trailer.

15 And while I was talking with the neighbor, I
16 kind of saw this smoke popping up over the horizon. It
17 just -- I didn't notice much about it other than smoke.
18 It's November, it's a little bit late in the season, but
19 it was dry. Turned around, talked to my neighbor, looked
20 back, and the smoke had moved quite a bit. And so at
21 that point, with the winds that were already starting to
22 go that morning, I just went and told my wife, "Hold off
23 on taking the kids, I don't like the look of this smoke."
24 Told the neighbor, you know, "Don't take the kids right
25 now. I want to see where this is going." And when I
26 came back, I noticed that the smoke had moved

1 significantly again, so I started taking pictures. And I
2 told my office, "Hey, I might be a little late, I just
3 want, I just want to double check this fire, it's not
4 doing what I think it's doing right now.

5 It then became moving so rapidly that I took a
6 sequence of pictures over a short period of time up until
7 it was starting to drop fire ash into the back property.
8 And that's when I just made my family get out.

9 Q. So who else was living with you at the
10 residence on the morning of November 8th?

11 A. My wife and two children.

12 Q. You said you started taking pictures of the
13 fire --

14 A. Yes.

15 Q. -- and smoke?

16

17 (Grand Jury Exhibit 292 was marked for identification.)

18

19 Q. Draw your attention to 292. It's in front of
20 you. Do you see Exhibit 292?

21 A. Yes.

22 Q. What is Exhibit 292?

23 A. That's the first picture that I took of the
24 smoke that I was starting to see moving a little too
25 quick for my liking.

26 Q. Do you recall what time you took that picture?

1 A. It was before 7:30, and it was after quarter
2 after 7:00, so around 7:20-ish.

3 Q. Okay. Let's move on to 292. Do you have 292?

4 A. 293. I just had 292.

5
6 (Grand Jury Exhibit 293 was marked for identification.)

7
8 Q. 293. You're right.

9 A. Yes. 293?

10 Q. Yep.

11 A. This is -- I had just turned to my neighbor and
12 said, "Hey, I don't like the look of this fire, hold off
13 on taking your kids." When I turned back, I noticed the
14 smoke had moved. So this was just maybe a minute later.

15
16 (Grand Jury Exhibit 294 was marked for identification.)

17
18 (Grand Jury Exhibit 295 was marked for identification.)

19
20 (Grand Jury Exhibit 296 was marked for identification.)

21
22 Q. Now, because I forgot, we're going to skip to
23 296 and come back to 295. Actually, you have them in
24 order. They're in order on there, they're out of order
25 on the PowerPoint. Okay. So 295.

26 A. I have this one as 294. I think on the initial

1 they were inverted.

2 Q. Okay. Yep. You're right. 294.

3 A. And this is two or three minutes later. By now
4 I was going to the backyard to kind of see if there was
5 any -- I was noticing some heavy ash dropping, I just
6 wanted to kind of look in the backyard to see if there
7 was anything that was actually hitting the ground that
8 was smouldering.

9 Q. And 295?

10 A. And, again, this is just a couple minutes later
11 after that. I think this was the last picture I took and
12 I was like, "Okay, this is moving way too fast." This
13 was, again, a couple minutes later.

14 Q. After taking the pictures, what did you do?

15 A. It's the modern age, I had to take a video.

16 Q. You have a thumb drive in front of you marked
17 Grand Jury's Exhibit 296?

18 A. I do.

19 Q. Do you recognize that thumb drive?

20 A. Yes.

21 Q. What is that thumb drive?

22 A. This is the one I had them put the video from
23 the camera on.

24 I don't want to do that. Don't open it all the
25 way.

26 Q. All right. Miracles of modern technology. I

1 do not know why that signal just stopped.

2 (Discussion off the record.)

3 (Video plays).

4 Q. (By MR. NOEL) Is this the video you shot?

5 A. It is.

6 Q. Describe it for us, for the record, what we're
7 seeing.

8 A. Well, I had the camera regular, and I thought
9 it would be better to get panoramic, which didn't work
10 out. Just the way it was moving so fast -- my dad used
11 to be a firefighter, and it was always intriguing the way
12 fire moves. So -- and at this time, I didn't think we
13 were going to be dealing with what we were, so I was just
14 going to send it to my office, say, "Hey, check this out;
15 it's kind of cool in its own way."

16 Q. And approximately what time are you taking this
17 video?

18 A. Right from the beginning photo to the video, it
19 was only about 13 minutes.

20 Q. All right. So explain to us what happens after
21 you took the video.

22 A. At that point, I was seeing that it was moving
23 a lot faster, so I told my family, "It's time to go,
24 stop." They were already trying to pack up, but I have a
25 10-year-old and 13-year-old. Trying to get them to work
26 is sometimes difficult. Again, in our mind, it was back

1 to 2008 where, you know, just go through the motions, get
2 everything out and come right back. So at that point, it
3 was moving so fast I said, "It's time to go now."

4 Q. So did you get your family out?

5 A. I sent my wife and my children and then I still
6 had to -- I wanted to see if I could get my travel
7 trailer out just in case.

8 Q. So do you recall what time you sent your wife
9 and children out?

10 A. Probably around 7:40, 7:35-ish, 7:40-ish.

11 Q. What about your neighbors?

12 A. In between, I think in between the last picture
13 and the video, I had actually gone over and there was
14 kind of an older gentleman, I was trying to beat on his
15 door to get him awake to make sure he was aware of what
16 was going on. And the other neighbors were already out
17 and about. So I was pretty comfortable with everybody,
18 except for Richard, was aware.

19 Q. So how long did you stay at the house after
20 your family left?

21 A. Probably five minutes.

22 Q. Describe the conditions.

23 A. It started getting really high winds, and it
24 was throwing pretty good size branches, flaming branches,
25 down on the orchard behind me, and it was catching some
26 of the orchard on fire. So I don't know why, I have a

1 plow blade on my quad, so I jumped on the quad and used a
2 plow blade trying to put out the fires that were starting
3 out in the orchard.

4 When I was doing that, I saw some firefighters
5 coming up from Apple View, it kind of intersects in the
6 orchard. And as I looked around, the orchard was spot
7 fires everywhere, and the firefighters were walking back
8 to their truck. So it was kind of pointless at that
9 time.

10

11 (Grand Jury Exhibit 297 was marked for identification.)

12

13 Q. So in front of you you have Exhibit 297?

14 A. Yes.

15 Q. Explain to us what we're looking at on 297.

16 A. That shows pinpointing my house and kind of
17 shows the area of the orchard. And you can see Apple
18 View.

19 Q. You can go ahead and get up and point things
20 out.

21 A. So this is an easement that has access to the
22 back property and Apple View back up in here. So where I
23 was, I was seeing it kind of open in this area, and then
24 they came from Apple View.

25 Q. They being the firefighters?

26 A. Firefighters.

1 Q. What direction was the fire coming from?

2 A. Well, it started coming here, but as the wind
3 started moving, it started rapping up here. And when the
4 flames actually starting hitting Deal, it was actually
5 coming this direction. And then later on it was coming
6 this way. But mostly where I was at before I left was
7 coming from this direction.

8 Q. So explain that for the record so that the
9 court reporter can take it down. You're saying it
10 started coming from the right-hand side, lower right-hand
11 side, and then kind of moved up towards the top
12 right-hand corner, and then turned left and going towards
13 the center?

14 A. Would it be better if I referenced the screen
15 or cardinal better?

16 So the smoke pictures that came in were coming
17 from the lower right, the southeast, area of what this
18 would be the map, but the flames were coming from the
19 northeast, almost the north, from the top of the monitor.

20 Q. And where were you on your quad with your plow
21 blade?

22 A. Upper left quadrant here into the orchard.
23 Almost right in line with Apple View.

24 Q. And what was the purpose of being out in that
25 area with your quad and the plow blade?

26 A. I thought I could get some dirt on the fires

1 that were spotting up and just keep that from burning out
2 there.

3 Q. How did that work out?

4 A. Not very well.

5 Q. So what did you do when you saw the
6 firefighters leaving?

7 A. It's time to go.

8 Q. So did you evacuate, also?

9 A. Yeah. I knocked on Richard's door one more
10 time, because I wasn't getting a response, so I was
11 hoping that he was already out by that time. And then
12 after no response, then I jumped in my truck and was
13 trying to haul my trailer out.

14 Q. What about the rest of your neighbors?

15 A. They were already gone.

16 Q. Describe the conditions as you were leaving
17 your house.

18 A. As I was leaving the house, you know, Dean was
19 empty. It wasn't until I got to Pentz Road that things
20 kind of went sideways again.

21 Q. How so?

22 A. Just blocked traffic. There was -- I had a
23 36-foot trailer on my Duramax. I take up a lot of room.
24 Trying get along, they had traffic blocked on both sides,
25 so you couldn't go south and you couldn't go north. So I
26 was kinds of just stuck there.

1 Q. While you were stuck there, did you continue to
2 watch the fire behind you?

3 A. At that point, the fire had actually now
4 started coming before me. I didn't see what was going in
5 behind, but I had just made a left on Pentz, and I could
6 see the flame coming from basically right, almost
7 crossing Pentz Road.

8 Q. Okay. Let's go back a few exhibits. Back to
9 where we started, on 290. And can you explain for us the
10 path that you were taking and what you are seeing?

11 A. So initially I turned left. And this is Pentz
12 Road here, one of the three main arteries that goes
13 through the town of Paradise. So I turned left and was
14 trying to get out to Wagstaff, but we were stopped right
15 about in between what's Dean and Merrill Road. And it
16 was just a long line, and it looked like there was a lot
17 of fire right here. And it looked like there was a
18 patrol car with its lights on and looked like everybody
19 was being turned the opposite direction.

20 Q. So when you say "right here," you were pointing
21 at the area just to the south of the intersection of
22 Pentz and Merrill?

23 A. Right at the intersection is where the patrol
24 vehicle was.

25 Q. And at that point could you see what was going
26 on behind you, where you had left?

1 A. I couldn't see anything behind me still.
2 There's a lot of trees right around here. And at that
3 point, it was getting a little dark. And this was quite
4 a bit ablaze already, so that's -- obviously it was, it
5 drew my attention toward the fire to figure out how am I
6 going to get this truck turned around with this trailer.

7 Q. So what did you do?

8 A. The patrol officer was right there, but there
9 was a tree that was going to almost come down on top of
10 his car. I said, "Hey, you better move your car." When
11 he moved his car, I was allowed, I was able to get into
12 Merrill and use a driveway to pull up and back around, so
13 I could start heading north on Pentz.

14 Q. What were the conditions that you observed on
15 Merrill?

16 A. Merrill was pretty empty, looked like everybody
17 was pretty much gone out of there, similar to Dean. So
18 all the feeder streets here, there was not much coming
19 in. Just packed on Pentz.

20 Q. Okay. What about fire?

21 A. The fire was pretty much right here. That's
22 the last place I saw it. I don't remember seeing much
23 fire coming along here on the way back.

24 Q. Okay. So most of the fire you were seeing
25 still is southeast of the intersection of Merrill and
26 Pentz, and you didn't see any on east of Pentz as you

1 proceeded back up Pentz?

2 A. Correct.

3 Q. Okay. Tell us, show us your continued route.

4 A. So at that point, I continued north on Pentz,
5 and I made it to Gate Lane, which is up here. So that's
6 when the traffic started getting blocked. And they
7 actually had just routed me off into Gate. And then --
8 so it was packed beyond Gate, and looked like they were
9 trying a different pattern for traffic. So I turned on,
10 and all the cars started to turn on basically just in
11 front of me and just behind me.

12 Q. Were you eventually able to get out of
13 Paradise?

14 A. Not at that point, no.

15 Q. Okay. How did you get out of Paradise?

16 A. I made it to about right here. I was looking
17 in my rear view. I was watching the smoke coming from
18 behind me. And, again, my dad being a firefighter for
19 the forest service, he kind of taught me how to read
20 smoke. And it looked like there was three heads of the
21 fire going on; one down in here, looked like another one
22 up here, and one starting somewhere up over in here.
23 Based on that, I didn't think with the way traffic was I
24 was going to be able to get out, so I found an address on
25 Gate Lane, they had -- it was a wide spot in the road, it
26 had a bunch of rock on it. And I figured that is the

1 best place I'm going to have. I'm not going to be able
2 to get this trailer out, so I'm going to find the biggest
3 area I can to fight fire and keep it away from my truck.
4 I kind of like my truck.

5 Q. So did you stop at that area?

6 A. I did.

7 Q. And what did you do in that area?

8 A. We were stalled there for quite a while. As I
9 moved my truck off, people were saying, "Get your truck
10 moving, get your truck."

11 I said, "No, I'm going to stick here. I think
12 you're going to get blocked right there. I can't tell
13 you what to do, but I think you're just going to get
14 blocked."

15 So I stayed off, and one other gentleman stayed
16 with me. And then pretty soon it was -- they had blocked
17 all the road off in front of us. So we stopped and
18 fought fire.

19 As the fire came over, it was those three
20 heads, and then soon to be joined with the fourth. And
21 we just fought fire, trying to keep them away from
22 houses, keep them away from my truck really.

23 Q. How were you fighting the fire?

24 A. Broke into a garage, grabbed a shovel and a
25 rake, and we were just trying to do whatever we could to
26 get as much leaves and debris away from the house. There

1 was a, one guy, an old gentleman, that he didn't want to
2 leave, and his trees were on fire, so we were trying to
3 put the trees out so we could at least get him calmed
4 down a little bit.

5 Q. How long were you at that location fighting the
6 fire on that day?

7 A. Six hours, seven hours.

8 Q. How did your day end on November 8th?

9 A. Once the fire was past and we could do no more
10 good where we are, the gentleman who was with me, we were
11 getting the truck turned around, and behind us
12 miraculously there was no cars. All the cars had gone
13 by. And the last car was stopped right in front of my
14 truck. So we were able to back -- I was able to back up
15 in my driveway, turn around.

16 I still thought my house was going to be fine,
17 because I just spent all the time clearing it. I was
18 just going to drop the trailer off, grab this guy that
19 was with me, go check on his house. That's when I found
20 out my house was gone. At that point, we had lost cell
21 phone connection, so I really didn't know where my wife
22 was. Because she, the last communication I had with her
23 is they had turned on the bike path, and she was thinking
24 that they were going to have to get out of the car and
25 run. So I told her, "Stay in the car, just do what you
26 need to do," and then the line went dead. So I was

1 trying to get down and find out what happened to her.

2 Q. So you were able to make it back to your house?

3 A. Yes.

4 Q. And what did you find?

5 A. My house was burned. Well, pretty much the
6 neighborhood was burned. My immediate neighbor across
7 from the easement was scorched, but it was still
8 standing. But the fire had already come through.

9 Q. Next up you have in front of you 298,
10 photograph marked as 298?

11 A. Yes.

12 Q. Do you recognize that photograph?

13 A. I do.

14 Q. What does that photograph 298 depict?

15 A. That's where -- that's after the fire. That's
16 the house.

17 Q. Where is the house?

18 A. Kind of in the center. So this is the house
19 right here.

20 Q. What was left of your house?

21 A. My shop and the new pool.

22 Q. The new pool sort of changed colors?

23 A. It definitely changed colors.

24

25 (Grand Jury Exhibit 299 was marked for identification.)

26

1 Q. All right. So we asked you to put together a
2 list of your neighbors. And you have 299 in front of
3 you?

4 A. Yes.

5 Q. And explain to us what 299 shows.

6 A. These are our neighbors across the street. My
7 son's best friend from across, Nypls.

8 Q. The Nypls, is that how it's pronounced?

9 A. Yes.

10 Q. And the Nypls lived in that house on November
11 8th?

12 A. Yes.

13 Q. How do you know that?

14 A. My son and their daughter are best friends.
15 Well, actually I saw them that morning getting their cars
16 out and leaving, and we talked briefly.

17 Q. So this photograph obviously was taken before
18 the fire?

19 A. Yes.

20 Q. And next up?

21 A. That's after the fire.

22

23 (Grand Jury Exhibit 300 was marked for identification.)

24

25 Q. 300?

26 A. 300 is after the fire.

1 Q. So the Nypls lost their home, also?

2 A. Yes.

3

4 (Grand Jury Exhibit 301 was marked for identification.)

5

6 Q. Let's go to 301.

7 A. That's my immediate neighbors. That's Fred and
8 Joan.

9 Q. Do you have personal knowledge that Fred and
10 Joan lived at that house on November 8th?

11 A. Yes. I see them every day.

12 Q. This is another pre-fire Google Earth image of
13 the houses?

14 A. Yes.

15

16 (Grand Jury Exhibit 302 was marked for identification.)

17

18 Q. And 302?

19 A. That's after t he fire. Their home was also
20 burned.

21

22 (Grand Jury Exhibit 303 was marked for identification.)

23

24 Q. Moving on, 303. What does 303 depict?

25 A. That's Forrest.

26 Q. Who is Forrest?

1 A. He's a little guy down the street. Good guy.

2 Q. This is before the fire?

3 A. Yes.

4

5 (Grand Jury Exhibit 304 was marked for identification.)

6

7 Q. And then 303. I'm sorry, 304.

8 A. That's a closeup of his house before the fire.

9 Yes.

10 Q. Was Forrest living in that house on the morning
11 of November 8th?

12 A. He was.

13

14 (Grand Jury Exhibit 305 was marked for identification.)

15

16 Q. And 305?

17 A. The house after the fire.

18 Q. Now, I noticed that you, when we started
19 talking about Forrest you became a little bit emotional.

20 Why is that?

21 A. He died in the fire.

22 Q. So Forrest is one of the 84?

23 A. He's my neighbor.

24

25 (Grand Jury Exhibit 306 was marked for identification.)

26

1 Q. All right. Moving on to 306. What is 306
2 showing us?

3 A. That's Wetlands' (phonetic) property.

4 Q. Who are the Wetlands?

5 A. He was former town mayor. He was a contractor.
6 I've known him for many years. He helps me with projects
7 around the house.

8 Q. You know that the Wetlands were living at that
9 residence on November 8th?

10 A. Yes.

11 Q. Do you have personal knowledge of that?

12 A. I do.

13 Q. This is a photograph before the fire of the
14 house?

15 A. Yes.

16

17 (Grand Jury Exhibit 307 was marked for identification.)

18

19 Q. 307?

20 A. That's after the fire.

21

22 (Grand Jury Exhibit 308 was marked for identification.)

23

24 Q. 308.

25 A. Overview of the property. Now includes

26 Dr. Stewart's property.

1 Q. Who is Dr. Stewart?

2 A. He's a friend of mine, neighbor. You know, you
3 get to know your neighbors. And he just lived kind of
4 kitty-corner across the orchard. And we'd just stop and
5 talk every once in a while when he came in.

6 Q. Do you have personal knowledge if Dr. Stewart
7 was living at that residence on November 8th?

8 A. I do.

9

10 (Grand Jury Exhibit 309 was marked for identification.)

11

12 Q. 309.

13 A. That's more of a closeup of just his area
14 there.

15 Q. Okay. And this is pre-fire?

16 A. Pre-fire.

17

18 (Grand Jury Exhibit 310 was marked for identification.)

19

20 Q. And 310?

21 A. Post-fire, same property.

22 Q. And house gone?

23 A. House is gone.

24

25 (Grand Jury Exhibit 311 was marked for identification.)

26

1 Q. All right. 311.

2 A. That's Ron's place there, pre-fire. Another
3 neighbor. He lives -- this strip of the orchard here I
4 was able to buy a couple years ago, so as I was cleaning
5 the property, I got to know a couple of these neighbors.
6 Ron was one. He'd get bored and tell his wife he needed
7 to help me clean my property. That was his excuse to get
8 out.

9 Q. So you have personal knowledge that Ron was
10 living in that residence on November 8th?

11 A. Yes.

12

13 (Grand Jury Exhibit 312 was marked for identification.)

14

15 Q. And now to 312.

16 A. That's post-fire.

17 Q. And Ron's house was destroyed in the fire,
18 also?

19 A. Yes.

20

21 (Grand Jury Exhibit 313 was marked for identification.)

22

23 Q. 313?

24 A. This is adjacent from my house. And this is a
25 elderly lady named Bobbie.

26 Q. You had mentioned Bobbie earlier, I think,

1 didn't you?

2 A. I don't think we talked about Bobbie yet.

3 Q. Okay. Who is Bobbie?

4 A. Bobbie is a little old lady. She lived by
5 herself. Her partner died a couple years ago. So she
6 was just there by herself.

7 Q. And do you have personal knowledge that Bobbie
8 was living at that residence on November 8th?

9 A. Yes.

10 Q. Did you see Bobbie on November 8th?

11 A. I didn't. I checked with Marissa, and she had
12 told me that Bobbie had already left.

13 Q. Who is Marissa?

14 A. Marissa Nypl, I'm sorry.

15 Q. Okay. So this 313 is pre-fire?

16 A. Yes.

17

18 (Grand Jury Exhibit 314 was marked for identification.)

19

20 Q. And then 314?

21 A. Post-fire.

22 Q. And Bobbie's house also was destroyed?

23 A. Yes.

24

25 (Grand Jury Exhibit 315 was marked for identification.)

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Q. 315?

A. That's Richard's house.

Q. Who is Richard?

A. Richard is another gentleman that lived kitty-corner to me that we just kind of -- he just kind of lived by himself. Little mobile home there. Nice guy.

Q. Personal knowledge Richard was living there on November 8th?

A. Yes.

Q. Did you have any contact with Richard on November 8th?

A. I did.

Q. Describe that.

A. I couldn't ever wake him up, or I never met him at the door, but when I was stopped at Gate, he was also stopped at Gate, and we talked briefly.

Q. So you had personal knowledge that Richard was living there on November 8th?

A. Yes.

Q. What happened to Richard's house?

A. It also burned.

(Grand Jury Exhibit 316 was marked for identification.)

Q. Moving on to 316, what is depicted in 316?

1 A. That is Richard's place, burned.

2

3 (Grand Jury Exhibit 317 was marked for identification.)

4

5 Q. 317. What are we looking at in 317?

6 A. That's Kellie's, my kids' dental hygienist.

7 Q. Is Kellie a first name or last name?

8 A. Kellie is a first name.

9 Q. Male or female?

10 A. Female. I always forget her last name.

11 Q. All right. And do you have personal knowledge
12 that Kellie was living in that residence on November 8th?

13 A. I do.

14 Q. What happened to Kellie's house?

15 A. It also burned.

16

17 (Grand Jury Exhibit 318 was marked for identification.)

18

19 Q. On to 318. What does that show?

20 A. That's after the fire.

21 Q. Post-fire, showing the destruction of Kellie's
22 house?

23 A. Yes.

24

25 (Grand Jury Exhibit 319 was marked for identification.)

26

1 Q. All right. 319. What are we looking at in
2 319?

3 A. It's the Neff's (phonetic) house next to
4 Kellie's.

5 Q. Who are the Neffs?

6 A. Some family friends from church. Our kids grew
7 up together.

8 Q. Do you have personal knowledge that the Neffs
9 lived in that residence on November 8th?

10 A. I do.

11 Q. What happened to the Neffs' house?

12 A. Their house also burned.

13

14 (Grand Jury Exhibit 320 was marked for identification.)

15

16 Q. Going to 320. What is 320?

17 A. Google image after the fire.

18 Q. Showing the destruction of the Neff house?

19 A. Yes.

20

21 (Grand Jury Exhibit 321 was marked for identification.)

22

23 Q. 321?

24 A. Johnson place.

25 Q. Who were the Johnsons?

26 A. He owns air conditioning repair, installation

1 in the area.

2 Q. Busy man this week?

3 A. Yes. I think he actually is now retired.

4 Q. Do you have personal knowledge that the
5 Johnsons were living at the house on November 8th?

6 A. I do.

7 Q. And did you see them on November 8th?

8 A. I did not.

9 Q. What happened to the Johnson house on November
10 8th?

11 A. It also burned.

12

13 (Grand Jury Exhibit 322 was marked for identification.)

14

15 Q. Moving on to Exhibit 322. What does 322 show?

16 A. Google image showing the burned.

17

18 (Grand Jury Exhibit 323 was marked for identification.)

19

20 Q. All right. 323. Now we've added the Steele.

21 A. Friend of mine, also reserve deputy, owns a
22 propane company in Paradise.

23 Q. Do you have personal knowledge that Mr. Steele
24 lived at that residence on November 8th?

25 A. Yes.

26 Q. Do you know what happened to the Steele house

1 on November 8th?

2 A. It also burned.

3

4 (Grand Jury Exhibit 324 was marked for identification.)

5

6 Q. Now moving on to 324. What does 324 show?

7 A. That's the picture after the fire.

8

9 (Grand Jury Exhibit 325 was marked for identification.)

10

11 Q. 325, somebody named J Wines. I'm going to
12 guess you know that person?

13 A. That would be my brother.

14 Q. And you have personal knowledge that your
15 brother was living at that residence on November 8th?

16 A. I do.

17 Q. What happened to your brother's house?

18 A. His burned.

19

20 (Grand Jury Exhibit 326 was marked for identification.)

21

22 Q. Moving on 326?

23 A. Google image showing the burn.

24 Q. The house is no longer there?

25 A. Nope.

26

1 (Grand Jury Exhibit 327 was marked for identification.)

2

3 Q. 327?

4 A. Can't tell you if the spelling is right, but
5 that's Sachonnen's. He retired from the pest control
6 service.

7 Q. Another neighbor?

8 A. Yes.

9 Q. Just because this one we don't have very good
10 -- I guess on your brother and on Sachonnen, what's the
11 street right here?

12 A. He's at the corner of Dean, which is the
13 horizontal. Then Pentz is the vertical.

14 Q. Okay. So you have personal knowledge that
15 Mr. Sachonnen was present?

16 And we believe the spelling is
17 S-A-C-H-O-N-N-E-N.

18 COURT REPORTER: Thank you.

19 Q. I guess you can see that, can't you?

20 Then Mr. Sachonnen was living at that residence
21 on November 8th?

22 A. Yes.

23 Q. And what happened to Mr. Sachonnen's house?

24 A. It burned as well.

25

26 (Grand Jury Exhibit 328 was marked for identification.)

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Q. Now we're looking at 328. What is depicted in 328?

A. A Google image after the fire showing the burns.

(Grand Jury Exhibit 329 was marked for identification.)

Q. 329. Who are the Nobles?

A. They're the co-owners of Noble Orchard. That's Jim Noble and his wife were living there. Orchard is actually owned by all the kids, but they live there.

Q. And let's give some perspective. What is this road?

A. That is Pentz Road.

Q. Okay. So now in terms of the relationship to your house?

A. If you drew a 45-degree angle to the bottom right of the screen, you would kind of tie into my house over there.

Q. Do you have personal knowledge if the Nobles were living in that house on November 8th?

A. Yes.

Q. Do you know what happened to the Nobles' house?

A. Their house also burned.

1 (Grand Jury Exhibit 340 was marked for identification.)

2

3 Q. Showing you 340. Tell me, what is 340?

4 A. That's the Google image showing the destruction
5 after the fire.

6 Q. 345. Who is Lea?

7 A. I have 341.

8

9 (Grand Jury Exhibit 341 was marked for identification.)

10

11 Q. Oh, 341. Yep. You're right. I skipped.

12 341?

13 A. That's the last name of Lea.

14 Q. Oh, last name of Lea?

15 A. Yes. That's a lady that works also with the
16 DA's office.

17 GRAND JUROR #4: Isn't that Exhibit 331?

18 MR. NOEL: I can't count.

19 GRAND JURY CLERK: It's 341.

20 MR. NOEL: 341. Somehow I skipped the entire
21 330 to 339. If I could count, I wouldn't have gone to
22 law school.

23 Q. (By MR. NOEL) So 341 is who?

24 A. That's -- her name's Jenny Lea. She works for
25 the District Attorney's office.

26 Q. And do you have personal knowledge that Ms. Lea

1 lived in that house on November 8th?

2 A. I do.

3 Q. What happened to Ms. Lea's house?

4 A. It also burned.

5 Q. This is 341.

6 GRAND JURY CLERK: 42.

7 MR. NOEL: 342. I'm sorry. I told you I can't
8 count.

9

10 (Grand Jury Exhibit 342 was marked for identification.)

11

12 Q. (By MR. NOEL) What does 342 depict?

13 A. That's the Google image after the fire showing
14 the destruction.

15

16 (Grand Jury Exhibit 343 was marked for identification.)

17

18 Q. 343. Who is Ross?

19 A. That's a last name. That's Jodi Ross. She's a
20 friend of mine who lives kind of just north of that last
21 photo.

22 Q. Do you have personal knowledge that Ms. Ross
23 lived in that residence on November 8th?

24 A. I do.

25 Q. And what happened to Ms. Ross's house?

26 A. Her house also burned.

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(Grand Jury Exhibit 344 was marked for identification.)

Q. Which would be 344?

A. Yes.

Q. What are we looking at in 344?

A. Google image after the fire showing the
destruction of the home.

(Grand Jury Exhibit 345 was marked for identification.)

Q. 345? Who were the Knifong? Or who is Knifong?

A. This is actually the father of a realtor that
lives in Paradise. This is where the elder senior
Knifong was living.

Q. Do you have personal knowledge that Mr. Knifong
was living at this address on November 8th?

A. Yes.

Q. Do you know what happened to Mr. Knifong's
house?

A. It burned.

(Grand Jury Exhibit 346 was marked for identification.)

Q. Showing you 346. What does 346 depict?

A. A Google image after the fire showing the

1 destruction.

2 Q. The destruction of the Knifong house?

3 A. Yes.

4

5 (Grand Jury Exhibit 347 was marked for identification.)

6

7 Q. 347. What is Niarz?

8 A. Another friend of mine, who is a blacksmith in
9 Chico. It shows before the fire, where his house was.

10 Q. Personal knowledge Mr. Niarz was living in that
11 residence on November 8th?

12 A. I do.

13 Q. Do you have personal knowledge as to what
14 happened to his house?

15 A. Yes, I do.

16 Q. What happened?

17 A. It also burned.

18

19 (Grand Jury Exhibit 348 was marked for identification.)

20

21 Q. Showing you 348. Tell us what that shows.

22 A. Google image showing the Niarz home burned.

23

24 (Grand Jury Exhibit 349 was marked for identification.)

25

26 Q. 349. Thonton.

1 A. Actually Thornton. I missed the R.
2 This is a lady from church. She just lost her
3 husband to cancer a couple years ago.

4 Q. Do you have personal knowledge Ms. Thornton
5 lived in that house on November 8th?

6 A. I do.

7 Q. Do you have personal knowledge as to what
8 happened to that house on November 8th?

9 A. I do.

10 Q. What happened?

11 A. It also burned.

12

13 (Grand Jury Exhibit 350 was marked for identification.)

14

15 Q. Going to 349 -- 350. What does 350 depict?

16 A. Google image after the fire showing the
17 destruction to the Thornton house.

18

19 (Grand Jury Exhibit 351 was marked for identification.)

20

21 Q. 351, Halgren.

22 A. This is my wife's cousin. That's his place.

23 Q. Do you have personal knowledge that Mr. Halgren
24 lived at that residence on November 8th?

25 A. Yes. This is one of those that because of the
26 tree canopy and the way Google -- this is a

1 representation of the area. I got it as close as I can
2 be. I can't say that underneath that pin is the house,
3 but doing street view, this is the best capture of, I can
4 get of where his house was.

5 Q. But -- you can't really see anything in there,
6 but you personally know that there was a house there?

7 A. Yes.

8 Q. Under the top of the canopy?

9 A. Yes.

10 Q. Before the fire there was a house?

11 A. Yes.

12 Q. Then it was lived in by Mr. Halgren?

13 A. Yes.

14 Q. And what happened on November 8th?

15 A. It burned.

16
17 (Grand Jury Exhibit 352 was marked for identification.)

18
19 Q. Moving on to 352.

20 A. That's a Google image after the fire showing
21 the destruction of the Halgren house.

22
23 (Grand Jury Exhibit 353 was marked for identification.)

24
25 Q. 353. Who is Blaine?

26 A. Blaine is my flooring guy. And he lived right

1 next to my wife's cousin.

2 Q. Do you have personal knowledge that Blaine
3 lived somewhere under the canopy on November 8th?

4 A. Yes.

5 Q. And do you have personal knowledge as to what
6 happened to Blaine's house on November 8th?

7 A. I do.

8 Q. What happened?

9 A. His house burned.

10

11 (Grand Jury Exhibit 354 was marked for identification.)

12

13 Q. Moving on to 354. What is 354 depicting?

14 A. Google image post-fire showing the destruction
15 to Blaine's house.

16

17 (Grand Jury Exhibit 355 was marked for identification.)

18

19 Q. 355, Dean?

20 A. Dean. That's actually the gentleman that was
21 stuck on Gate with me. He decided to pull over with me.
22 After I dropped off my trailer, we went to check on his
23 house here. So this is a picture of his house before the
24 fire.

25 Q. So Mr. Dean was the person who was fighting
26 fires with you out there?

1 A. Yes.

2 Q. And did you drive with him, or did he ride with
3 you, or follow him?

4 A. No. I jumped in his truck at my house. I went
5 over in his truck.

6 Q. And when you arrived at Mr. Dean's house, what
7 did you observe?

8 A. His house was burned.

9

10 (Grand Jury Exhibit 356 was marked for identification.)

11

12 Q. 356. What does 356 show?

13 A. The Google image post-fire showing the
14 destruction to Ed's house.

15

16 (Grand Jury Exhibit 357 was marked for identification.)

17

18 Q. And 357. McDonald?

19 A. Friends of -- he's a friend of mine. His kids
20 go to school with my kids.

21 Q. And you have personal knowledge that
22 Mr. McDonald and his family lived in this house on
23 November 8th?

24 A. I do.

25 Q. What happened to Mr. McDonald's house?

26 A. His house burned.

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(Grand Jury Exhibit 358 was marked for identification.)

Q. 359? 358? Sorry.

A. It's the Google image post-fire showing the destruction to the McDonald house.

(Grand Jury Exhibit 359 was marked for identification.)

Q. 359, Mackenzie?

A. That's a former sheriff. This was --

Q. Scott Mackenzie?

A. Scott Mackenzie. That's a picture of his house before the fire.

Q. And you have personal knowledge that Sheriff Mackenzie lived at that residence --

A. Yes.

Q. -- on November 8th?

A. Yes.

Q. And what happened to Sheriff Mackenzie's house?

A. It burned.

(Grand Jury Exhibit 360 was marked for identification.)

Q. Number 360?

A. That is the Google image post-fire that shows

1 the destruction to the Mackenzie house.

2

3 (Grand Jury Exhibit 361 was marked for identification.)

4

5 Q. 361?

6 A. That is the Dally residence. Long-time
7 friends. He, his son and I grew up together. We started
8 at the sheriff's department together.

9 Q. So this would be older Dally?

10 A. This is Jim Dally, the principal of Paradise
11 High back in the day.

12 Q. Do you have personal knowledge that this
13 Mr. Dally was living at this residence on November 8th?

14 A. I do.

15 Q. Do you have personal knowledge as to what
16 happened to this residence in November 8th?

17 A. I do.

18 Q. What happened?

19 A. His house burned.

20

21 (Grand Jury Exhibit 362 was marked for identification.)

22

23 Q. Moving on to 362?

24 A. That is the Google image post-fire that shows
25 the destruction to the Dally house.

26

1 (Grand Jury Exhibit 363 was marked for identification.)

2

3 Q. 363, Campbell?

4 A. That is some long-time acquaintances of mine
5 through my aunt.

6 Q. Do you have personal knowledge that the
7 Campbells lived at that residence on November 8th?

8 A. I do.

9 Q. Do you have personal knowledge as to what
10 happened to that house on November 8th?

11 A. I do.

12 Q. What happened?

13 A. It burned.

14

15 (Grand Jury Exhibit 364 was marked for identification.)

16

17 Q. 364?

18 A. That is the Google image post-fire that shows
19 the destruction to the Campbell house.

20

21 (Grand Jury Exhibit 365 was marked for identification.)

22

23 Q. 365, Abrams?

24 A. This is my aunt's house. This is a picture
25 before the fire.

26 Q. And do you have personal knowledge that your

1 aunt was living in the residence on November 8th?

2 A. I do.

3 Q. Do you have personal knowledge as to what
4 happened to the residence on November 8th?

5 A. I do.

6 Q. What happened?

7 A. It burned.

8

9 (Grand Jury Exhibit 366 was marked for identification.)

10

11 Q. Moving on to 365 -- 366. What does 366 depict?

12 A. That is the Google image post-fire that shows
13 the destruction to the Abram's house.

14

15 (Grand Jury Exhibit 367 was marked for identification.)

16

17 Q. 367, Lippencott?

18 A. This was the son of the original Lippencott
19 that, survey company, that actually gave my dad his first
20 job in surveying. His granddaughter goes to school with
21 my son.

22 Q. So you have personal knowledge that
23 Mr. Lippencott was living there --

24 A. Yes.

25 Q. -- on November 8th?

26 A. Yes.

1 Q. Do you have personal knowledge as to what
2 happened to the house on November 8th?

3 A. I do.

4 Q. What happened?

5 A. It burned.

6

7 (Grand Jury Exhibit 368 was marked for identification.)

8

9 Q. 368?

10 A. That's the Google image post-fire that shows
11 the destruction to the Lippencott house.

12

13 (Grand Jury Exhibit 369 was marked for identification.)

14

15 Q. All right. Exhibit 369, Ennes?

16 A. This one's a little more difficult because
17 there was two houses. I'm pretty sure this is the
18 location. But on the image I had on my computer it
19 didn't upload the most recent. But when I saw this one,
20 Dave has a long driveway, he has a Jeep and a truck, but
21 it looks like there's a truck here and maybe a Jeep under
22 here. So it's either this house or this house.

23 Q. So the pin is on a house that looks like a
24 light-colored roof?

25 A. Yes.

26 Q. And then directly above that is another house

1 with a dark-colored roof?

2 A. Yes.

3 Q. So one of those two houses belongs to somebody
4 named Ennes?

5 A. The next one above. So not the darkest roof in
6 between.

7 Q. Okay.

8 A. Ennes is marked with the pin. You have one
9 house, and then there's a second one, but because of the
10 street view I wasn't able to tell exactly which one was
11 which. And I don't have his address, I just know I drive
12 to his house and I look for his truck. He's only moved
13 there within the last couple years. And we used to be
14 detectives together.

15 Q. Who is Mr. Ennes?

16 A. He's a deputy with the sheriff's office -- now
17 a sergeant with the sheriff's department.

18 Q. Sergeant Dave Ennes with the sheriff's
19 department?

20 A. Yes.

21 Q. And do you have personal knowledge that
22 Sergeant Ennes lived at that residence on November 8th?

23 A. Yes.

24 Q. And you have personal knowledge as to what
25 happened to Sergeant Ennes's house on November 8th?

26 A. It burned.

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(Grand Jury Exhibit 370 was marked for identification.)

Q. Now we're going to 370. 370, I'm sorry. What is 370?

A. It shows houses, either one of those houses burned.

Q. Right. Doesn't matter which one of them was Sergeant Ennes', all three of them are gone?

A. Correct. And I have since spoken with Sergeant Ennes, and he confirmed that his house was burned.

(Grand Jury Exhibit 371 was marked for identification.)

Q. All right. 371, Kohler?

A. These are my parents' best friends. My parents actually sold them that property. And I grew up with their children. This was a Google image of their house before the fire.

Q. Do you have personal knowledge that the Kohlers were living in that residence on November 8th?

A. I do.

Q. Do you have personal knowledge what happened to that house on November 8th?

A. It burned.

1 (Grand Jury Exhibit 372 was marked for identification.)

2

3 Q. 372, what is that showing?

4 A. Google image showing post-fire destruction to
5 the Kohler residence.

6

7 (Grand Jury Exhibit 373 was marked for identification.)

8

9 Q. 373, Granneman?

10 A. This is a picture of, pre-fire, of one of my
11 daughter's close friends in school.

12 Q. Do you have personal knowledge that the
13 Grannemans lived in that residence on November 8th?

14 A. I do.

15 Q. Do you have personal knowledge what happened to
16 that house on November 8th?

17 A. I do.

18 Q. What happened?

19 A. It burned.

20

21 (Grand Jury Exhibit 374 was marked for identification.)

22

23 Q. 374?

24 A. That's the Google image post-fire showing the
25 destruction to the Granneman house.

26

1 (Grand Jury Exhibit 375 was marked for identification.)

2

3 Q. 375, Stuermer?

4 A. This is a residence of -- Google image of the
5 Stuermer residence before the fire. She and my wife were
6 friends, and her kids grew up with my daughter.

7 Q. Do you have personal knowledge as to whether
8 the Stuermers resided in that residence on November 8th?

9 A. I do.

10 Q. And do you have personal knowledge as to what
11 happened to that residence on November 8th?

12 A. I do.

13 Q. What happened?

14 A. It burned.

15

16 (Grand Jury Exhibit 376 was marked for identification.)

17

18 Q. 376?

19 A. That's the Google image post-fire showing the
20 destruction to the Stuermer home.

21

22 (Grand Jury Exhibit 377 was marked for identification.)

23

24 Q. 377, Freitas?

25 A. This is a Google image showing the Freitas',
26 what he refers to as his "ranch." This is our pastor's

1 place.

2 Q. Do you have personal knowledge that Mr. Freitas
3 lived there on November 8th?

4 A. I do.

5 Q. Do you have personal knowledge as to what
6 happened to the house on November 8th?

7 A. I do.

8 Q. What happened?

9 A. It burned.

10

11 (Grand Jury Exhibit 378 was marked for identification.)

12

13 Q. 378. What is depicted in 378?

14 A. That's the Google image post-fire that shows
15 the destruction to the Freitas house.

16

17 (Grand Jury Exhibit 379 was marked for identification.)

18

19 Q. And finally, 379?

20 A. This is an overview of the town of Paradise,
21 where all those houses are located and the labeling of
22 the family names.

23 Q. So each one of these yellow pins represents a
24 house that we just looked at?

25 A. Correct.

26 Q. And those are all persons that you know?

1 A. Correct.

2 Q. Families that you know?

3 A. Correct.

4 Q. People you know lived in those locations on
5 November 8th?

6 A. Correct.

7 Q. And let's talk a little bit about the post
8 November 8th. Once you were able to get out of the fire
9 with Dean, what were you doing?

10 A. Trying to find out where my wife was.

11 Q. And how long did it take you to find your wife?

12 A. Got a little delayed because as I was going
13 down the hill realized that the truck was on fire, so I
14 had to stop and put my truck out. Then probably -- as
15 soon as I got down about the lookout on Skyway, I could
16 get cell phone signal again.

17 Q. Why was your truck on fire?

18 A. Apparently got too hot. I have a rubber mat
19 that I throw all my tools and everything on, and
20 apparently some embers had fallen in there and lit the
21 thing up.

22 Q. In the days following the Camp Fire, what was
23 your assignment?

24 A. It was on recovery mode to take teams in and
25 start searching for, looking for people that were
26 unaccounted for.

1 Q. So you lost everything in the fire; right?
2 Correct? Or everything but what you could carry out of
3 there on, quickly on November 8th?

4 A. Lost my house, yeah.

5 Q. But in the days that followed it, you're a law
6 enforcement officer, you were out in the community;
7 correct?

8 A. Yes.

9 Q. And describe for us the recovery efforts.

10 A. Unfortunately, it was trying to sift through
11 and trying to find people that didn't make it, so that we
12 can get their families some closure, so we can figure out
13 who else was out there.

14 Q. Did you personally recover bodies?

15 A. No.

16 Q. Did you supervise the recovery of bodies?

17 A. Yes.

18 Q. During the recovery efforts, did that give you
19 access to all of Paradise and Magalia?

20 A. Yes.

21 Q. And were you able to go around and check
22 friends', family members' houses?

23 A. Yes.

24 Q. And all of the, all of the houses that are
25 depicted in here by yellow pins you were able to go check
26 and found that they had been burned?

1 A. I didn't physically check these addresses. I
2 was trying to help others that were trying to call in and
3 get some closure. Most of these people I knew, had
4 talked to beforehand, so these were not addresses I went
5 and checked on.

6 Q. Okay. But at some point you were able to go
7 looking at all these residences, all of your friends' and
8 families' residences, and the fact that they were gone?

9 A. Correct.

10 Q. I mean, there were only a very few people up
11 there, and a lot of people wanted to know what happened
12 to their houses at that time; right?

13 A. Correct.

14 Q. Everybody was calling all the law enforcement
15 officers to check and see what happened to their house or
16 the family?

17 A. Correct.

18 MR. NOEL: I have nothing further at this
19 point.

20 GRAND JURY FOREPERSON: Nick, anything?

21 MR. FOGG: (Shakes head.)

22 MR. NOEL: We have a question.

23 (Counsel and Grand Jury Foreperson confer).

24 Q. (By MR. NOEL) All right. Lieutenant, these
25 are questions from the jury.

26 Have you been able to move back to your home?

1 A. No.

2 Q. And you found a new place to live?

3 A. Yes.

4 Q. In another area?

5 A. Yes.

6 Q. Have any of your neighbors, to your knowledge,
7 been able to return to their homes?

8 A. Nobody has been allowed to return home yet in
9 my neighborhood.

10 Q. Going back to where we started, and this is --

11 GRAND JURY CLERK: 299.

12 Q. 299. How many of these houses in your
13 neighborhood there survived?

14 A. So the Critchfields' (phonetic) house here
15 survived, and Kleins' survived here. But she's a little
16 old lady; I don't think she's going to come back. And
17 the Kleins, their house was damaged but it wasn't burned,
18 and with smoke damage, so they decided to leave.

19 Q. The friends and family members who lost their
20 homes, have they relocated to other areas?

21 A. Most of them have.

22 Q. Is anybody planning on rebuilding in Paradise?

23 A. I know my brother's rebuilding. And I know --
24 I just was up there. Not Ron's house. If you can
25 remember where the easement was, not his place, but the
26 house just north, I see fresh construction going on

1 there. So this was Ron's house. I see new construction
2 going on right there.

3 Q. You're referring to, I believe --

4 A. I've met them, I just, I can't remember their
5 names. And I really don't know --

6 Q. 303?

7 A. I don't know where they're at.

8 Q. Just to make clear, that's what exhibit you
9 were referring to.

10 A. Okay. So I know they were living there, I just
11 can't remember their names. And I don't know if they
12 sold the property and somebody else's building. I don't
13 know this.

14 MR. NOEL: Does that answer questions?
15 Anything else? Any other questions?

16 I believe that's all we have for you,
17 Lieutenant.

18 The foreperson will read you the admonition.

19 GRAND JURY FOREPERSON: Lieutenant Wines, you
20 are admonished not to discuss or disclose at any time
21 outside of your juror room the questions that have been
22 asked of you or your answers until authorized by the
23 Grand Jury or the court. A violation of these
24 instructions on your part may be the basis for a charge
25 against you of contempt of court. This does not preclude
26 you from discussing your legal rights with your own

1 attorney.

2 Lieutenant Wines, what I have just said is a
3 warning not to discuss this case with anyone except the
4 Court, your lawyer, or the district attorney. Do you
5 understand?

6 THE WITNESS: I do.

7 GRAND JURY FOREPERSON: Thank you.

8 [DISCUSSION OMITTED.]

9 --oOo--

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COURT REPORTER'S CERTIFICATE


This is to certify that I, JENNIFER L. HUNT, CSR, a Certified Shorthand Reporter of the State of California, was present at the time and place the foregoing proceedings were had and taken in the within matter; that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings and afterwards caused my said shorthand writing to be transcribed into typewriting. Further, pursuant to CCP237 all reference to jurors by name has been redacted.

The foregoing pages beginning at:

1 Through 175

are certified to be a complete transcription of said stenographic shorthand notes.

DATED: THIS 6TH day of JUNE 2022



JENNIFER L. HUNT, CSR 10735
OFFICIAL REPORTER

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IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

REDACTED

BCSC-2019-GJ-01

CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, JULY 30, 2019

VOLUME 14

OROVILLE, BUTTE COUNTY, CALIFORNIA

LISA MCDERMID WELCH, CSR 10928, OFFICIAL COURT REPORTER

SEALED PURSUANT TO PENAL CODE 938.1 (b)

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8 OFFICE OF THE ATTORNEY GENERAL:

9 [No appearances]

10
11 FOR WITNESSES DENNIS BITLE AND DAVID HERNANDEZ:

12 Rosen Bien Galvan & Grunfeld, LLP
13 Attorneys at Law
14 101 Mission Street, 6th Floor
15 San Francisco, California 94105
16 BY: Jeffrey L. Bornstein, Esq.
17 Alexander Gourse, Esq.

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1 OROVILLE, BUTTE COUNTY, CALIFORNIA

2 JULY 30, 2019; 8:35 a.m.

3 (Confidential Grand Jury Hearing Proceedings)

4
5 (PROCEEDING OMITTED.)

6
7 (ROLLCALL OMITTED.)

8
9 (PROCEEDING OMITTED.)

10
11 MR. NOEL: Dennis Bitle.

12 GRAND JURY FOREPERSON: Mr. Bitle, before you
13 sit down, I'd like to swear you in, please.

14 THE WITNESS: Will you speak louder, please.

15 GRAND JURY FOREPERSON: Yes. I'd like to swear
16 you in before you sit down. Could you raise your right
17 hand.

18 THE WITNESS: Okay.

19 GRAND JURY FOREPERSON: Can you hear me just
20 fine now?

21 THE WITNESS: No.

22 GRAND JURY FOREPERSON: Okay. Can you hear me
23 now?

24 THE WITNESS: Yes.

25 GRAND JURY FOREPERSON: Okay. Good.

26 Okay. Mr. Bitle, do you solemnly swear that the

1 evidence you shall give in this matter pending before the
2 grand jury shall be the truth, the whole truth, and
3 nothing but the truth so help you God?

4 THE WITNESS: Yes.

5 GRAND JURY FOREPERSON: Thank you. Have a seat,
6 please.

7 **EXAMINATION**

8 BY MR. NOEL:

9 Q. Could you please state your full name spelling
10 your last name for the record.

11 A. Dennis Michael Bittle, B-i-t-l-e.

12 Q. Mr. Bittle, are you employed?

13 A. No.

14 Q. Have you ever been employed?

15 A. Yes.

16 Q. How long have you been unemployed?

17 A. About eight years.

18 Q. And why are you unemployed?

19 A. Retired.

20 Q. You're retired from what?

21 A. Pacific Gas and Electric Company.

22 Q. Okay. Can you move up and speak into your
23 microphone so --

24 A. It's hard to hear, isn't it?

25 Q. Well, I can hear you fine, but those people all
26 the way in the back row need to hear you.

1 A. Thank you for speaking louder.

2 Q. Okay. Are you having trouble hearing me?

3 A. Not anymore.

4 Q. Okay. How long did you work for PG&E?

5 A. Forty-one years.

6 Q. When did you start?

7 A. 1970.

8 Q. And what did you do for PG&E?

9 A. In what years?

10 Q. Okay. Let's start with 1970. Where did you
11 start?

12 A. As a utility man equipment to maintenance.

13 Q. Okay. Explain to us what a utility man does?

14 A. I repaired broken windows in the building we
15 were in. I changed out ballasts and lights and the
16 fluorescent lights that we had. I would rebuild walls
17 that got cracks or had damage done. I would generally
18 just do maintenance.

19 Q. You said "in the building we were in." Was
20 there a certain department or building to which you were
21 assigned?

22 A. Yes.

23 Q. What building?

24 A. It was Department of Engineer and Research, a
25 building on Hollis Street. I can't remember the address.
26 4740 or something like that Hollis Street in Emeryville.

1 Q. Okay. How long were you a utility clerk for
2 engineering and research?

3 A. I don't remember exactly.

4 Q. Just in general do you recall?

5 A. Almost ten years. No. Wait. I'm wrong. We
6 moved out to San Ramon in '75, I think. So that's when
7 the utility ended. Whenever we moved to San Ramon was
8 when I stopped as a utility engineer person and began as
9 a D clerk.

10 Q. Okay. So somewhere around 1975 you became a D
11 clerk?

12 A. Yes.

13 Q. With what department?

14 A. With the department.

15 Q. Which department?

16 A. It was still the Department of Engineer and
17 Research.

18 Q. Okay. And the only change other than your job
19 title was that the department moved from Emeryville to
20 San Ramon?

21 A. Yes.

22 Q. Okay. What were your job tasks as a D clerk?

23 A. I handled purchase orders and requisitions for
24 purchase orders. I handled the cars making sure they had
25 gas and they were in sufficient order to drive. I did a
26 lot of clearing of different bookkeeping actions for the

1 company.

2 Q. How long were you a D clerk?

3 A. Oh, that I don't remember exactly. I mean five,
4 six years. I'm guessing. It's been a long time.

5 Q. What was your next job within PG&E?

6 A. I became a machinist.

7 Q. What is a machinist?

8 A. But they didn't call it a machinist. They
9 called it Tech 1.

10 Q. Tech 1?

11 A. Uh-huh.

12 Q. Are you -- remember you have to speak out loud
13 so the court reporter can take that down.

14 THE WITNESS: Can you hear me?

15 THE COURT REPORTER: Yes.

16 THE WITNESS: Even when I talk this way?

17 THE COURT REPORTER: Yes.

18 BY MR. NOEL:

19 Q. When you say "uh-huh" or "huh-uh," she can't
20 take that down. It has to be "yes" or "no."

21 A. I am very sorry. I will try to do better.

22 Q. Don't worry. Everybody has a problem with it.

23 So what were your job assignments as a Tech 1
24 machinist?

25 A. Excuse me. Do you have a Kleenex or does
26 someone have a Kleenex here? My eyes water. I'm old,

1 I'm told, because I have dry eyes.

2 Q. You know, usually we have boxes of Kleenex in
3 here.

4 A. Give me a moment.

5 [Grand jury foreperson supplies a
6 package of Kleenex to the witness.]

7 THE WITNESS: This is beyond me in technology.
8 Okay. Thank you.

9 GRAND JUROR NUMBER SIX: Mr. Bittle, could you
10 move the microphone a little closer.

11 THE WITNESS: Yeah. Are you having trouble?
12 Okay, Sir. Thank you.

13 Did I do that? Can you hear me now?

14 GRAND JUROR NUMBER SIX: Yes.

15 THE WITNESS: Okay.

16 BY MR. NOEL:

17 Q. So what were your duties as a Tech 1 machinist?

18 A. I was under a journeyman machinist that was also
19 a technician. He was a senior engineering technician.

20 Q. And what kinds of things did you do?

21 A. Made parts for testing, made fixturing for
22 testing. In general, I did machining with a lathe and a
23 mill and metal and then plastic and then various
24 materials.

25 Q. And how long were you a Tech 1 machinist?

26 A. I think the progress was two years from Tech 1

1 to Tech 2. And from Tech 2 I think it's senior
2 technician. I'm not sure. Some things were held up
3 because of education. You had to have an AA to make
4 senior technician. So I'm not sure when I finished my AA
5 degree in night school.

6 Q. All right. So --

7 A. Does that matter?

8 Q. I'm just walking through the timeline. You were
9 a Tech 1 --

10 A. Well, I'm trying to do what I remember, and I
11 remember very little --

12 Q. Right.

13 A. -- of that many years ago.

14 Q. So you were Tech 1 for approximately two years?

15 A. I think so, yes.

16 Q. And then you ascended to a Tech 2 position?

17 A. Yes.

18 Q. And you said that was --

19 A. Still in the machine shop.

20 Q. Okay. And that was about another two years or
21 so?

22 A. I -- I'm not sure how long I stayed as a Tech 2.

23 Q. Okay. The next step was you said senior --

24 A. Engineering tech.

25 Q. Engineering tech.

26 A. Yeah.

1 Q. And to reach that step you had to get an AA; is
2 that correct?

3 A. Yes, yes.

4 Q. And did you achieve an AA?

5 A. Yes.

6 Q. And what was your AA in?

7 A. General education.

8 Q. So it wasn't necessarily related to what you
9 were doing?

10 A. No.

11 Q. You just needed an associates degree?

12 A. It was an associates degree in general education
13 with a -- what do you call it? -- a certificate in
14 police science. I was going to be a police officer back
15 then.

16 Q. So at some point you became a senior engineering
17 tech?

18 A. Yes.

19 Q. And what does a senior engineering tech do?

20 A. They kind of have the -- mentor the Tech 1s and
21 Tech 2s and we write our own reports at that point
22 usually with engineering's backing.

23 Q. And were you still working at engineering and
24 research at this point?

25 A. That I don't remember when it changed to TES,
26 Technical and Ecological Services. I'm not sure when

1 that transition occurred.

2 Q. Okay. So at some point Engineering Services
3 became Technical and Ecological Services; correct?

4 A. I have no idea what you mean by Engineering
5 Services. It was Department of Engineering and Research.

6 Q. That's what I said.

7 A. Engineering -- you said Research Services or
8 something.

9 Q. You said environment -- now I'm forgetting. You
10 said you started --

11 A. Yes.

12 Q. You started off in 1970 in Emeryville working
13 for the Department of Engineering and Research?

14 A. Yes.

15 Q. And at some point -- well, and then about 1975
16 the Department of Engineering and Research moved to San
17 Ramon?

18 A. Yes.

19 Q. And you moved with that -- with them --

20 A. Yes.

21 Q. -- to San Ramon? And you became a D clerk?

22 A. Yes.

23 Q. And then you became Tech 1 and Tech 2 and
24 ultimately a senior engineering tech?

25 A. Yes.

26 Q. So at some point the Department of Engineering

1 and Research changed its name and became --

2 A. Technical and Ecological Services.

3 Q. Okay.

4 A. After Department of Engineering and Research.

5 Q. Okay. Right. Same department, just different
6 name; right?

7 A. Yes.

8 Q. Same physical location?

9 A. If it's in San Ramon.

10 Q. Yep.

11 A. Okay.

12 Q. Do you recall when that name change took effect?

13 A. Thirty-two years ago when I first started
14 with -- or when I started working 41 years ago. And then
15 we started going back or regressing to up until now.
16 It's very hard to remember years let alone hours and days
17 so . . .

18 Q. Right. But going back to the question that
19 started all of that, I guess whether you call it the
20 Department of Engineering and Resources --

21 A. Research --

22 Q. Research. I'm sorry. Or Technical --

23 A. -- and Ecological Services.

24 Q. -- and Ecological Services.

25 A. Yes.

26 Q. Essentially, it's the PG&E lab; correct?

1 A. Yes.

2 Q. Big round white building in San Ramon; right?

3 A. It had a geodesic dome.

4 Q. A geodesic dome?

5 A. Okay. Yes, you're right. And it was an
6 aluminum color, not white. Okay.

7 Q. So that's where you spent the entirety of your
8 41 years with the company; correct?

9 A. Emeryville and San Ramon.

10 Q. In that department; the lab?

11 A. In the department.

12 Q. Okay. So in the mid '80s, late '80s, what were
13 you doing at the lab?

14 A. I was testing physical -- doing physical tests
15 in the physical test department.

16 I'm sorry. Oatmeal is coming back up.

17 Q. What kind of physical testing?

18 A. I broke things.

19 Q. Why did you break things?

20 A. To see what the strength of the thing I broke
21 was, the ultimate strength.

22 Q. Why was that important?

23 A. It was a test to qualify material that we used
24 to hang insulators and conductors from and to check the
25 tensile strength of gas pipes or the threads on gas pipes
26 or the pressure that gas pipes would withstand. I did

1 mainly gas testing back in the early '80s, but some -- I
2 did some hardware testing of -- on the electric
3 department side.

4 Q. All right. In 1987 were you still with the --
5 working at the lab as a senior engineering tech?

6 A. Yes.

7 Q. Were you asked to do some tests on some
8 suspension hooks and hanger plates?

9 A. I was asked -- if you're referring to the test
10 report that you had brought before me in our conversation
11 yesterday, if it's that report, yes, I was asked to do a
12 test on some J-hooks that hold insulators up.

13 Q. You have in front of you what's been marked as
14 Exhibit Number 380. It's the packet right there in front
15 of you on the desk.

16 A. Uh-huh.

17 Q. Do you recognize Exhibit 380?

18 A. That is called Exhibit 380?

19 Q. Well, you have the actual exhibit right there in
20 front of you.

21 A. Yeah. Well, to me it's report number 500-87.
22 So you're saying -- you're qualifying report number
23 500-87.25 as exhibit --

24 Q. Exhibit 380?

25 A. Yes. Okay.

26 Q. There's an exhibit tag on the front page. Turn

1 to the front page.

2 A. Oh, the very front. Okay. Three eighty.

3 Q. So you recognize Exhibit Number 380?

4 A. I do now. This is yours, not mine. So I'm
5 trying to keep this very concise for you.

6 Q. What is Exhibit 380?

7 A. I have no idea what Exhibit 380 is. Are you
8 saying the exhibit is this test report?

9 Q. Okay. Sir, we're in a court of law.

10 A. Yes.

11 Q. Everything has to have an exhibit number and a
12 tag number.

13 A. Thank you for explaining that.

14 Q. This is Exhibit Number 380.

15 A. Yes.

16 Q. So Exhibit Number 380 is what?

17 A. Why don't you tell me and then I'll agree or
18 disagree.

19 Q. Sir, I ask the questions. You don't ask me
20 questions. I ask you questions. So I have to go through
21 certain questions. You can talk to your attorney about
22 that.

23 A. Can I have a break?

24 Q. It's called --

25 Sure.

26 A. Thank you.

1 [Mr. Bittle exits the courtroom.]

2 MR. NOEL: For the record, the witness has left
3 the courtroom to talk to his attorney.
4

5 [Recess taken from
6 9:11 until 9:15 a.m.]
7

8 THE WITNESS: That is not my report.

9 BY MR. NOEL:

10 Q. Right.

11 A. Okay.

12 Q. And that's not on the actual exhibit copy that
13 you have.

14 A. Okay. We're going -- sorry.

15 Q. The question is what is Exhibit Number 380?

16 A. This -- I'm learning -- is the way you are
17 introducing my test report is by Exhibit 380.

18 Is that correct? Am I correct?

19 Q. That is the way exhibits and the way evidence is
20 marked in a courtroom.

21 A. Okay. We're in agreement.

22 Q. So what is Exhibit 380?

23 A. It's my lab test report that I did -- oh, I'm
24 sorry. -- that I did when I tested what I thought to be
25 J-hooks.

26 Q. When did you do the tests on the items you

1 thought were J-hooks?

2 A. 1987.

3 Q. And how was it that you came to do these tests?

4 A. I was asked by (WITNESS #17) to do testing on
5 two J-hooks that he brought me. They were actually
6 C-hooks.

7 Q. Okay. You called them J-looks at the time, but
8 you now know them to be C-hooks?

9 A. Yes.

10 Q. Flip to page 2 of that document. That's what is
11 up on the big board here.

12 A. Oh, I'm sorry. 380 page 2. Okay.

13 Q. And what you have in front of you is your
14 report?

15 A. Uh-huh.

16 Q. First page of your report?

17 A. Uh-huh.

18 Q. Remember, you have to answer out loud.

19 A. Yes. Yes on both questions.

20 Q. Okay.

21 A. Okay.

22 Q. And you wrote this report?

23 A. I wrote this report.

24 Q. And you wrote this report based upon what?

25 A. On my test results.

26 Q. Okay. So let's flip over and let's go back to

1 the fourth page. On the fourth page there are pictures,
2 figure one and figure two.

3 A. The third page?

4 Q. Is it the third page? Okay. I'm sorry.

5 A. One, two, three.

6 Q. Well, actually there's a cover sheet on there;
7 correct?

8 A. Oh, you're counting -- yes, Sir. It's hard to
9 get used to.

10 Q. So the fourth page of the packet.

11 A. Okay.

12 Q. So it's the way PG&E gives them to us. That's
13 the way it is.

14 A. Okay. So you understand why I'm having trouble
15 with this?

16 Q. You've never done this before.

17 A. That's true.

18 Q. And it's confusing. I understand.

19 So third page of the report, fourth page in the
20 packet, two pictures, figure one and figure two. See
21 those?

22 A. Yes.

23 Q. Did you take those photographs?

24 A. Yes.

25 Q. Why did you take photographs of the items?

26 A. Why did I? Usually to show before and after.

1 Q. Just documentation?

2 A. Yes.

3 Q. Is that correct?

4 Okay. So the top photograph, figure number one,
5 what are we looking at in that photograph?

6 A. I was emphasizing the bowl saddle of the J-hook.
7 That's what I thought was a J-hook at the time.

8 Q. And what's a bowl saddle?

9 A. It's an ANSI explanation of where the -- the
10 other part of the hook, whatever latches onto the hook
11 should set or should ride.

12 Q. And why was that a concern?

13 A. I had no -- I wanted to show that it had some
14 wear on it. I mean, from the looks of it.

15 Q. Okay. So you took this to show there was wear
16 on the hook?

17 A. I took this to show the hook.

18 Q. Okay.

19 A. If there's wear on it, yes.

20 Q. That is one of the hooks that you were using;
21 right?

22 A. Was using, was testing.

23 Q. Okay. And is this the wear right here
24 (indicating)? This channel?

25 A. This is it right here (indicating). I can't see
26 that.

1 Q. Okay. You can come on up to the board if you
2 want. They can't see what you're looking at.

3 A. Yes, that's the bowel saddle.

4 Q. Okay. And how would you describe that wear
5 pattern?

6 A. I wouldn't.

7 Q. You wouldn't?

8 A. No.

9 Q. Why not?

10 A. Would you repeat the question.

11 Q. How would you describe the wear pattern?

12 A. I did not describe it then. It had wear, I
13 could say.

14 Q. Okay.

15 A. But that's all I can say.

16 Q. Did you ever hear the term "channeling"?

17 A. Maybe in metallurgy.

18 Q. Okay. Going on to figure two, what is figure
19 two?

20 A. This figure shows the keyhole wear in the plate
21 caused by the J-hook while in service.

22 Q. What do you mean by "keyhole wear"?

23 A. It looks like a keyhole, the old-time keys.

24 Q. Okay. So again using the big board up on the
25 board, what are we talking about in terms of --

26 A. Right there (indicating).

1 Q. So --
2 A. So this --
3 Q. So that whole area?
4 A. Yes.
5 Q. So it appeared that the hole used to be a
6 circle?
7 A. Yes.
8 Q. And then it's worn down into a --
9 A. That I can assume because normally they wouldn't
10 put a keyhole in a machined hole, yes.
11 Q. All right. So what kind of testing did you do
12 on these items?
13 A. I pulled them in tension until they broke.
14 Q. Do you have a certain machine for doing so?
15 A. It's a Tinius Olson Universal Test Machine.
16 Can you still hear me?
17 Q. I've gone up to the next page. I think it's
18 page 4 of your report, page 5 of the document.
19 A. Okay.
20 Q. And you see figure three?
21 A. Yes.
22 Q. Is that a photograph that you took?
23 A. Yes.
24 Q. What does figure three depict?
25 A. The fixture holding the plate and the J-hook.
26 Q. What fixture?

1 A. The Tinius Olsen Universal Test Machine.

2 Q. So this is actually the test machine that we're
3 looking at in this picture; correct?

4 A. You're looking at the fixturing that is inside
5 the test machine. The test machine is that table down
6 below with those big hydraulic rams on both sides.

7 Q. Okay.

8 A. Okay. And what's covered in the retractable
9 sleeve there is the threads for raising and lowering the
10 table to get it in position to pull the thing in tension,
11 pull whatever thing we test in tension.

12 Q. Okay.

13 A. Or in compression depending on how we set it up.

14 Q. So explain to us how this test works.

15 A. Well, we pull a graduated movement slowly in
16 tension up until it breaks. Okay.

17 Q. Okay. So let's back up a little bit. Let's
18 make it little bit more basic.

19 A. Okay.

20 Q. What is this (indicating) thing up here? You
21 can come up to the board.

22 A. Okay.

23 Q. This right here (indicating)?

24 A. That is the actual plate that had the keyhole in
25 it from page -- whatever page.

26 Q. Right. From figure two?

1 A. Okay. And underneath it is the hook that was
2 in --

3 Q. Figure one?

4 A. -- figure one. If you say so. Let's make it
5 real. Figure one, yes.

6 Q. So are the hook and the plate attached in some
7 way in the machine?

8 A. Attached to the machine you're saying?

9 Q. I . . .

10 A. They're attached to a fixture that was put in
11 the machine. These are the jaws that come up and close
12 on whatever I put in the lower part. There's jaws that
13 look just like this (indicating) that come up and close
14 on what's up here, too.

15 Q. Okay. So the two were attached to something
16 that is part of the machine; is that correct?

17 A. It was holding them to take away the part that
18 was holding them so if something really big put on both
19 sides that we know wasn't going to break or distort or
20 cause anything else to happen to that -- the product. We
21 call it "the product."

22 Q. Okay.

23 A. So it did not influence the breaking strengths
24 when pulled in tension.

25 Q. Okay. So would figure three show all the parts
26 ready to be tested?

1 A. Yes.

2 Q. Okay. So this would be the test?

3 A. That would be it.

4 Q. All right. Now, explain the test for us,
5 please.

6 A. Okay. The Tinius Olsen is a hydraulic machine
7 controlled by valves, and the valves are on a turning
8 wheel that increase more or less flow through the valves
9 into the pistons that places the part in tension. You
10 can control the rate of tension and watch the gauge going
11 up, which is a big face dial about that (indicating) big
12 around. And it was a big dial that goes up. And it has
13 a follower -- or a follower needle -- well, it's actually
14 a leader needle that goes up. And whenever it breaks and
15 this falls, that stays where it is so that we can read on
16 the -- on the dial face at what point it failed or broke.

17 Q. Okay. Just a couple things for the record.
18 When you were describing the pressure gauge or whatever
19 you said, the big face and you held your hands out --

20 A. It's a board on -- board on to gauge.

21 Q. Okay. And you were holding your hands out with
22 your arms spread --

23 A. That's how big it was.

24 Q. -- probably three and a half feet wide?

25 A. About three, yeah.

26 Q. Okay.

1 A. It was easy to read.

2 Q. And so how would you get measurements from that
3 device?

4 A. You would look and read the number that it broke
5 or failed at.

6 Q. Okay. So when you say "apply tension," what are
7 you talking about?

8 A. Load.

9 Q. Okay. What does that mean?

10 A. In pounds. I'm sorry. In pounds. Load in
11 pounds until it breaks. Is that what you're --

12 Q. Well, I'm looking for something more basic as to
13 what you're doing that is putting this thing under
14 tension or under load that is measuring pounds.

15 A. I don't understand.

16 Q. Okay. Are you pulling in opposite directions on
17 the --

18 A. Yes.

19 Q. Okay. So that's what you mean by putting it
20 under tension --

21 A. Yes.

22 Q. -- is pulling in opposite directions from both
23 sides?

24 A. Uh-huh.

25 Q. And the point is to see when it breaks?

26 A. Yes.

1 Q. Okay. And how many hooks did you test in 1987?

2 A. It looks like three but not -- one of them was
3 not from the -- one of the hooks were given to me by
4 (WITNESS #17).

5 Q. How many hooks did (WITNESS #17) give you?

6 A. I think two.

7 Q. And would you test both of those hooks?

8 A. Yes.

9 Q. And you test them both using the Tinius Olsen --

10 A. Yes. There were two. And both hooks failed at
11 11,500 pounds.

12 Q. Okay.

13 A. Broke at 11,500 pounds.

14 Q. So you tested both of the hooks that were given
15 to you by (WITNESS #17) in the Tinius Olsen machine;
16 correct?

17 A. Yes.

18 Q. By applying pressure or tension to them?

19 A. Yes.

20 Q. And both broke; correct?

21 A. Both broke.

22 Q. And what pressure levels or pounds?

23 A. Poundage. Pounds force.

24 Q. Pounds force.

25 A. It was 11,500 according to the Tinius Olsen Test
26 Machine.

1 Q. Now, were you provided anything on who made the
2 hooks?

3 A. I was given literature that I put in the
4 appendices.

5 Q. Okay. Let's go back to that.

6 A. And I'm unsure if I was -- I think it was
7 (WITNESS #17) that gave me the literature. I'm not sure.

8 Q. So let's go back through the appendices. And
9 you said this was literature that you were given.

10 A. Okay. Sorry. Some of these are upside down.
11 They're not in the place they're supposed to be and so
12 forth and so on. So this is kind of tough for me
13 remembering 32 years back and also looking at something
14 that isn't the way it was when I first did it.

15 Does that --

16 Q. No. You take all your time you want to look at
17 your appendices. And I have one of them up on the board.

18 A. Okay. That's a PG&E drawing. That is not a
19 manufacturer's --

20 Q. Okay. And what do you mean by it's a PG&E
21 drawing?

22 A. Just what I said. It's a PG&E drawing. It's
23 not a manufacturer's drawing. So it may be what the
24 manufacturer said. They may have copied it, cloned it,
25 or whatever, but it's still a PG&E drawing. It's not a
26 manufacturer's drawing.

1 Q. Okay. And why would this document be important
2 to your testimony?

3 A. I have no idea.

4 Q. Okay. Let's go on to the next one.

5 A. Okay.

6 Q. That should be the Lindsey document.

7 A. Okay.

8 Q. And why would this document be important to your
9 report?

10 A. It tells you -- it gives you a description of
11 the ball hook which they call the ball hook which is
12 actually a C-hook. Right? That's what we call it.
13 Okay.

14 Q. What you refer to as a J-hook?

15 A. J-hook and the C-hook, yes. Lindsey calls it a
16 ball hook. I imagine it's because of the ball. I'm not
17 saying I know the reason they do. It's just most
18 insulators have a ball and socket. The ball is the male
19 end. The socket is the female end of the -- of the
20 insulator as you can see.

21 Q. Okay. Why would this be important to your
22 report?

23 A. It gives a description of the hook and gives
24 strength and materials. So that would be of interest to
25 someone probably.

26 Q. Okay. Let's move on to the next appendices.

1 A. Ohio Brass.

2 Q. The Ohio Brass page.

3 A. Yes. The same thing, it looks like.

4 Q. Okay. Were you given any information as to
5 whether or not the hooks you were testing were Ohio Brass
6 or made by some other company?

7 A. No. It doesn't say in my report so I can't say.
8 I usually put the manufacturer if I have that data. And
9 that's the only reason I remember that. I was taught to
10 do that.

11 Q. Okay. So that would indicate that you didn't
12 know the manufacturer of the hooks that you were testing?

13 A. Yes. I'm sorry. Yes.

14 Q. Going back to the first one, the one you said is
15 a PG&E drawing --

16 And actually, down in the right-hand corner it
17 says "Anderson Electric Corporation." Is that correct?

18 A. Yes, I guess. Give me a copy of the Lindsey,
19 okay, or Anderson. Where is Anderson?

20 Q. The first one.

21 A. Okay. Oh, okay.

22 Okay. What would you like me to . . .

23 Q. That's a third company; correct?

24 A. I don't know.

25 Q. Okay. But the document says on the bottom it
26 says "Anderson Electric Corp leaves Alabama." Is that

1 correct?

2 A. It says that, yes.

3 Q. Okay. So you have schematics for these hooks
4 from three different companies attached to your report;
5 is that correct?

6 A. I can only assume.

7 Q. Well, they're attached to your report; correct?

8 A. Yes.

9 Q. And you don't remember why; is that correct?

10 A. Thirty-two years ago.

11 Q. No. I'm just saying you don't know why they're
12 attached.

13 A. Not today.

14 Q. Okay. But in your report it never states the
15 manufacturer of the hooks that you were testing?

16 A. Yes.

17 Q. Okay. All right. So I want to go back a few
18 pages to figure four. Is figure four also a photograph
19 that you took?

20 A. Yes.

21 Q. And what does figure four depict?

22 A. Well, it says "This hook shows the point of
23 failure to be in the worn section of the bowl saddle."

24 Q. So what does that mean?

25 A. It means it was in the worn section. It bent
26 and broke.

1 Q. Okay.

2 A. As it says it should in ANSI for standard hooks,
3 the way hooks should fail.

4 Q. Okay. Good point. You said --

5 A. Do you want to go to ANSI?

6 Q. Well, do you have Appendix B attached to your
7 report?

8 A. Yes, I do.

9 Q. And what is Appendix B?

10 A. ANSI P30.10-1975.

11 Q. What is ANSI?

12 A. American National Standards Institute.

13 Q. And what is ANSI -- what did you say? P30-1975?

14 A. It's hooks, I guess. Yes, hooks.

15 Q. What is that document?

16 A. It's a means of testing that the manufacturer --
17 all the manufacturers of hooks in rigging and chain
18 hoists, et cetera. The people that manufacture such as
19 Campbell and -- who else? -- Crosby, back then those were
20 the two leading manufacturers of chain and wire rope and
21 hooks and shackles and so forth and everything used in
22 rigging. They -- most of the people in this ANSI that
23 are responsible for the testing are some of those
24 manufacturers.

25 Q. Okay.

26 A. So that's how this came about, ANSI came about,

1 I'm told. So it's a guideline. We use it when we're
2 doing our tests. It doesn't necessarily mean that we
3 are -- we have our own tests. It's usually more thorough
4 and more exacting on the product we're testing than ANSI
5 is. ANSI is kind of giving a general testing of hooks.

6 Q. So why is the ANSI standard for hooks attached
7 to your report?

8 A. A long time ago I probably thought something
9 that I can't remember today. I gave you my best thoughts
10 on it, but that would be an opinion and that may not be
11 true.

12 Q. Okay.

13 A. So I'd rather not go with opinions and my
14 thoughts of 32 years ago.

15 Q. On the -- on the copy of the ANSI hook standards
16 that were attached to your report, there are notes -- not
17 really notes. There are brackets and handwritten
18 brackets and underlining --

19 A. I don't know who put those there.

20 Q. Okay. You don't know if that was you or
21 somebody else?

22 A. Right.

23 Q. But for some reason you photocopied the ANSI
24 standard and attached it to your report; correct?

25 A. The typing pool did it. And I asked -- I put
26 the original of what I had in the report.

1 Q. Okay. All right. So let's go back and talk
2 about figures five and six.

3 A. Okay.

4 Q. Figure five is a photograph that you took?

5 A. Yes.

6 Q. And what does figure five depict?

7 A. The hook failed in the heel.

8 Q. What does that mean?

9 A. I'm unsure.

10 Q. How is the heel different from the saddle?

11 A. I am unsure. I know that if you look at ANSI,
12 it will probably tell you where the heel of the hook is.
13 And maybe that's how I found ANSI usable. I don't know.

14 Q. Okay. And how about figure six? Is that a
15 photograph you took?

16 A. Yes.

17 Q. And what does figure six depict?

18 A. It looks like I broke the keyhole.

19 Q. So figure six is the after picture for figure
20 two?

21 A. No. It wasn't what was used. It did not break
22 when I was pulling the others.

23 Q. Okay.

24 A. Which is obvious.

25 Q. Okay. Explain.

26 A. Didn't it break at a higher ultimate?

1 Q. Okay. We haven't gotten there yet. You said
2 you took before and after photographs; right?

3 A. Yes.

4 Q. So figure two is a before photograph of the
5 hanger plate, correct, with the keyhole in it?

6 A. Yes.

7 Q. And then figure six, the after -- is that the
8 after photo of the same plate?

9 A. In the plate. It says right here that it's the
10 same plate.

11 Q. Okay.

12 A. Okay. I only had one plate evidently to test.

13 Q. Okay.

14 A. So . . .

15 Q. The point is that figure six and figure two are
16 the same plate?

17 A. Yes.

18 Q. Remember, we have to establish all of this. I
19 know --

20 A. I'm going by the report, and the report says
21 that says that. So, yes. Do I remember? No.

22 Q. Okay. Now, you said that your plate failed at a
23 higher pressure than the hooks?

24 A. Higher tensile.

25 Q. Higher tensile?

26 A. Pressure usually indicates compression which is

1 the other way.

2 Q. Okay. So what amount of tensile did the plate
3 fail at?

4 A. 19,600 pounds.

5 Q. I'm going back to your report itself. Under
6 "Objective" it says "The ultimate rating for 115 kV lines
7 is 30,000 pounds." Correct?

8 A. Yes.

9 Q. And you then in parentheses "See manufacturer's
10 literature and Appendices A."

11 A. Yes. That was yes.

12 Q. And in Appendice A can you show us where the
13 ultimate strength rating is?

14 A. It's number one, item number one.

15 Q. Okay.

16 A. Would you like me to point?

17 Q. Sure.

18 A. (Indicating).

19 Q. Okay. So we have a column on the -- and this
20 that we're looking at --

21 A. PG&E drawing.

22 Q. -- is the Anderson Electric Corp schematic. And
23 there's a column that says "ULT, period, STR period,
24 pounds." Is that correct?

25 A. Yes.

26 Q. Okay. And that's what you said is the ultimate

1 strength rating?

2 A. Yes. That's what it says, yes.

3 Q. And then there's --

4 A. But it references ASTM.

5 Q. Okay. We'll get to that in a second. And then
6 there's the Lindsey document.

7 A. Yes.

8 Q. Do you see an ultimate strength rating on the
9 Lindsey document?

10 A. Right there. The ball hook. The ball hook.

11 Q. Okay. But do you see an ultimate strength
12 rating here someplace?

13 A. Thirty kip.

14 Q. Thirty kip. What does that mean?

15 A. One thousand pounds. The "K" is a thousand.
16 It's kind of -- it usually means pounds per square inch.
17 Kips are usually a shortcut to saying pounds per square
18 inch tension.

19 Q. Got it. And finally, the Ohio Brass schematic.
20 Do you see an ultimate strength rating on there?

21 A. Was it -- is it -- oh, wait a minute. Right
22 here (indicating).

23 Q. Okay. So again, you're pointing to the chart in
24 the middle of the page and the column. The third column
25 from the left says "ULT, period, STR" and then has a list
26 of numbers down below; correct?

1 A. Numbers down below?

2 Q. In the column under "ultimate strength" or
3 "ULT/STR."

4 A. Ultimate strength is what that normally stands
5 for.

6 Q. Okay. And you identify the hook as being part
7 A?

8 A. "A."

9 Q. And how do you recognize the look as being part
10 A?

11 A. It says it in the drawing.

12 Q. Okay. Explain.

13 A. They usually use letters or numbers alphanumeric
14 to describe. "A" in the drawing would be A item.

15 Q. Okay.

16 A. "B" would be B item, C, D, E. Where's F? Up
17 here (indicating) which you showed me.

18 Q. So when you're talking about in the drawing,
19 you're talking about the drawing of what we'd call the
20 suspension hanger assembly on the left?

21 A. Right.

22 Q. And at the top there's a circle A pointing to a
23 part?

24 A. Uh-huh.

25 Q. You have to answer out loud.

26 A. Yes.

1 Q. So again, the ultimate strength rating on this
2 is 30,000 pounds?

3 A. On what?

4 Q. That is for the Ohio Brass. That's what it
5 lists for the hook?

6 A. The hook. It says 30,000 pounds.

7 Q. Okay.

8 A. With a reference to A-576 of the ASTM standard.

9 Q. All right. The test results we went over,
10 conclusions.

11 This is where we talk about the third hook. You
12 said you tested a third hook. Where did you get a third
13 hook?

14 A. Out of some bin.

15 Q. What bin?

16 A. That's the only thing I can think of because I
17 don't know where it came from either now. But the bin is
18 where we kept all of our old fixturing and stuff we've
19 tested in the past that didn't fail at a given load that
20 we were testing something else using an existing product
21 that you saw on those lists there.

22 Do you understand that? Did I make myself
23 clear?

24 Q. Yep. Why did you test a third hook, something
25 other than what Mr. (WITNESS #17) gave you?

26 A. I was trying to get a statistic, and I couldn't.

1 I didn't have enough. I had no other J-hooks or C-hooks
2 to test. I would like to find out what the normal
3 breaking strength is of a new one, for instance.

4 Q. So what happened when you tested the hook that
5 you got out of the bin?

6 A. It broke lower.

7 Q. At what?

8 A. Sixty-nine hundred pounds of force.

9 Q. Did you seek out any further hooks for testing?

10 A. No. I should not have put that one in there
11 because I had no idea what it was used for in the past.
12 It could have already been yielded from a prior test.

13 Q. What does it mean to be yielded?

14 A. Beyond going back to its original form. Micro
15 yielding is yielding so you don't necessarily see it, but
16 it's already in plastic which means it's flowing where
17 it's not going to go back to its original shape. Even
18 though it's just my cost, it still failed. And that's
19 the extent of my metallurgy.

20 Q. Right. And the two worn hooks failed at 11,500
21 pounds?

22 A. Yes.

23 Q. And the comparison, the exemplar hook failed at
24 6,900 pounds?

25 A. Yes.

26 Q. And the hanger plate failed at 11,000 -- or I

1 mean 19,000 pounds; right? 19,600 pounds?

2 A. Yes.

3 Q. Now, as you sit here today is there -- looking
4 back at your report --

5 A. Do you guys have time? I'd like to go use the
6 facilities.

7 MR. NOEL: Madam Foreperson.

8 GRAND JURY FOREPERSON: Yes, that's fine.

9 THE WITNESS: Can I take a break?

10 GRAND JURY FOREPERSON: Yes.

11 THE WITNESS: This is nothing. It's just --

12 MR. NOEL: Go ahead.

13 THE WITNESS: Thank you.

14 MR. NOEL: Yep.

15 Everybody can take a quick bathroom break if
16 they need it.

17 What time is it?

18 GRAND JURY FOREPERSON: Want to do 15 minutes?

19 MR. NOEL: It's almost break time anyway.

20 GRAND JURY FOREPERSON: Want to do fifteen
21 minutes? Okay.

22 [Recess taken from

23 9:52 until 10:10 a.m.]

24 GRAND JURY FOREPERSON: All members of the grand
25 jury are back and ready to proceed.

26 **EXAMINATION CONTINUED**

1 BY MR. NOEL:

2 Q. Just a few more questions for you, Mr. Bitle.
3 When you did this test, what was your position with the
4 lab?

5 A. I think Tech 2. That's the thing because I
6 don't remember what I was at that point.

7 Q. The people down in the distribution list on the
8 far bottom corner, who are those people?

9 A. Ed Elliott was a mechanical engineer that was my
10 direct supervisor. Carl Paquin was his boss. He was a
11 mechanical engineer also. (WITNESS #17) was our client,
12 and CB Scott -- Brian Scott was the head of our whole
13 section of mechanical testing, physical testing.

14 Q. Okay. And then over here on the right side of
15 the first page of your report --

16 A. My signature and Ed Elliott's signature.

17 Q. Okay. So whose signature is under "approved"?

18 A. That's Ed Elliott.

19 Q. Okay. And yours is "tested by"?

20 A. And tested by.

21 Q. So your report was approved by --

22 A. Ed Elliott.

23 Q. -- Mr. Elliott.

24 A. Ed. Only I may be wrong. It went to the --
25 only to the first tier when it was just a lab report.

26 Q. Describe the level of supervision you were

1 receiving at that time from the engineers?

2 A. They gave me the test and they corrected
3 anything on my test report that they saw as incorrect.

4 Q. Corrected how?

5 A. They did not change the results, the loads, and
6 so forth but on how it was presented usually.

7 Q. Okay. How would you know that they corrected
8 things on your reports?

9 A. Red ink.

10 Q. The dreaded red ink?

11 A. It looked like someone bled on my report.

12 Q. So your original draft of your report would have
13 gone to your supervisor Mr. Elliott?

14 A. Yes.

15 Q. He would have reviewed it, red penned it, given
16 it back to you. And ultimately this would have been the
17 final copy after he had approved everything?

18 A. Yes.

19 Q. Okay. So I know it's been 30, 40 years almost
20 since you reviewed this, thirty-two years since this
21 report, but you'd indicated that, you know, now that
22 you're reviewing it in hindsight that there's some issues
23 that you had with your report; is that correct?

24 A. Yes.

25 Q. And what are those issues?

26 A. One of the issues I had on the drawings they --

1 they referenced the 30,000 pounds to ASTM standard.

2 A-576, I think. There we go. Okay. ASTM.

3 Q. We're looking at the Anderson Electric
4 Corporation drawings.

5 A. Okay. I'm -- what does it say?

6 Q. It looks like it says "ASTM." And this is for
7 the item one, HB30, the hook ball galvanized steel,
8 30,000 --

9 A. Oh, hold on a minute. That is a different --
10 forged steel is different. So that's another error.

11 Q. Okay.

12 A. That may not have been an Anderson, and it may
13 have been an Anderson. So now I have to --

14 Thank you for bringing that to my attention.
15 Because they also said 30,000 pounds. So that's really
16 got me confused now.

17 Q. Okay.

18 A. That's very interesting.

19 Q. So it says right here under material "Galvanized
20 forged steel." Well, let me ask you.

21 A. Yes.

22 Q. Make sure I'm getting this right because I'm
23 assuming. "G-A-L-V.forged steel."

24 A. Yes.

25 Q. And that would mean what?

26 A. I will try to explain. Oh, this is going to be

1 fun. Okay. As you see, the Ohio Brass drawing says
2 30,000 K, which is the hook. It says "30,000 pounds
3 referenced to ASTM 8576." And 8576 references to the
4 material test being ductile iron, not steel.

5 Does that clarify?

6 Q. What is the difference?

7 A. Steel is steel. Iron is iron.

8 Q. Okay.

9 A. And I would have to be a metallurgist to break
10 that down for you. I'm not.

11 Q. Okay. So the Ohio Brass identifies this as
12 what?

13 A. As reference to 8576 --

14 Q. Okay.

15 A. -- on the ASTM standard. That would be
16 different than ductile iron. It would be -- I guess
17 because they said steel, that it would be steel. I'm not
18 sure at this point.

19 Q. Okay.

20 A. I would have to look up "A" whatever.

21 Q. The 8576.

22 A. A2 -- I can't even see it. That's me.

23 Q. You're back on the Anderson page?

24 A. Anderson page.

25 Q. Now, the Anderson page under material "GLV,"
26 that would stand for galvanized; right?

1 A. Right.

2 Q. So it lists this as galvanized forged steel?

3 A. Right.

4 Q. And you're talking about the column that says
5 "SPEC.NO."?

6 A. Yes.

7 Q. SPEC --

8 A. I'm sorry. I was reading the whole thing.

9 Q. I guess that's spec number?

10 A. Spec number, yes. Spec number, correct.

11 Q. And underneath you're trying to read it says
12 "ASTM." It looks like "4-272-64."

13 A. It looks like --

14 Can you please enlarge that.

15 Q. I'm not sure it's going to make any -- oops.

16 GRAND JUROR NUMBER SEVENTEEN: Oh, better.

17 THE WITNESS: It looks like 273.

18 BY MR. NOEL:

19 Q. Okay. 273.

20 A. I'm unsure about the four or eight. But looking
21 at the "AS" here, it looks like the ASTM is the same
22 typo. I don't know.

23 Q. Okay.

24 A. It could be four. It could be eight.

25 Q. What different would it make?

26 A. It would be steel instead of iron. It would be

1 steel instead of iron.

2 Q. So what difference would that make in your
3 testing?

4 A. We would have to go back to strength of
5 materials.

6 Q. Okay. And is that the ultimate strength in
7 pounds?

8 A. Per square inch according to ASTM. ASTM is the
9 standard that tests the material the product was made out
10 of. The product is what we had that we pulled in
11 tension.

12 Q. Okay. So how would that affect the results of
13 your testing or analysis and the results of your testing?

14 A. They would be different.

15 Q. Okay. Any other issues that you have with your
16 report?

17 A. That's a major one right there. That would be
18 the most important one. I don't know.

19 Did I speak to you of another that I had
20 uncertainty about? I don't remember. Did I yesterday?

21 Q. The only other one you brought up to me
22 yesterday is that you used the term J-hook instead of
23 C-hook.

24 A. That's it. That would be the other item.

25 Q. Okay. So in hindsight there's some things that
26 you believe were mistakes in your report; correct?

1 A. Yes.

2 Q. But yet your report was reviewed by the
3 engineer, the mechanical engineer Mr. Elliott?

4 A. Yes.

5 Q. And signed off on by the engineer?

6 A. By Ed Elliot.

7 Q. And finally, the last section of your written
8 narrative report is the recommendation; correct?

9 A. Yes.

10 Q. Now, what was your recommendation based upon the
11 testing that you did?

12 A. That we test new hooks.

13 Q. Did that ever occur?

14 A. Not from me.

15 MR. NOEL: That's all I have, Your Honor or
16 Madam Foreperson. It's funny how the old habits come
17 back in.

18 GRAND JURY FOREPERSON: Yes.

19 Does anyone have any questions?

20 MR. NOEL: All right. Mr. Bittle, the jurors
21 have some questions for you.

22 BY MR. NOEL:

23 Q. "Exhibit 380 shows a recommendation that a
24 random sampling of J-hooks and attachment eyes failure as
25 well below manufacturer's ratings even to equipment with
26 no visible damage. Was such random sampling done?"

1 A. I don't understand that at all.

2 Q. Well, your recommendation we just talked about
3 was that there be further testing on a random sampling of
4 J-hooks.

5 A. That I can -- yes. Okay.

6 Q. And the juror's question was: Was such random
7 sampling ever done?

8 A. Not by me.

9 Q. In your professional opinion would a failure
10 rate from such random testing be significant enough to
11 require general testing and recall of such equipment
12 currently in service in PG&E systems?

13 A. Let's go to the professional opinion first. At
14 that point, I was the last thing to a professional there
15 was. I was the tester. I broke the part and the
16 engineers decided whether and the client, who had a lot
17 better grasp on things than me, would decide whether more
18 samples needed to be tested. I can only recommend.

19 Q. Your recommendation was to do additional
20 testing?

21 A. Yes.

22 MR. NOEL: Anything further?

23 Madam Foreperson will have an admonition for
24 you.

25 GRAND JURY FOREPERSON: Okay. Mr. Bittle, can
26 you hear me?

1 THE WITNESS: Yes. I'm going to get closer to
2 make sure.

3 GRAND JURY FOREPERSON: Okay. Okay. Mr. Bitle,
4 you are admonished not to discuss or disclose at any time
5 outside of this jury room the questions that have been
6 asked of you or your answers until authorized by the
7 grand jury or the Court. A violation of these
8 instructions on your part may be the basis for a charge
9 against you of contempt of court. This does not preclude
10 you from discussing your legal rights with your own
11 attorney.

12 THE WITNESS: Question on that. That means
13 everything that we discussed here today I can talk to my
14 attorney about?

15 GRAND JURY FOREPERSON: Yes.

16 THE WITNESS: Okay.

17 GRAND JURY FOREPERSON: Mr. Bitle, what I have
18 just said is a warning not to discuss this case with
19 anyone except the Court, your lawyer, or the district
20 attorney.

21 Do you understand?

22 THE WITNESS: Yes, totally.

23 GRAND JURY FOREPERSON: Okay. Thank you. Thank
24 you for your time today.

25 MR. NOEL: All right. You're done. Thank you.

26 Next up will be David Hernandez.

1 [Mr. Bittle exits the courtroom and

2 Mr. Hernandez enters the courtroom.]

3 GRAND JURY FOREPERSON: Mr. Hernandez, before
4 you have a seat, would you please raise your right hand
5 and be sworn.

6 Mr. Hernandez, do you solely swear that the
7 evidence you shall give in this matter pending before the
8 grand jury shall be the truth, the whole truth, and
9 nothing but the truth so help you God?

10 THE WITNESS: I do.

11 GRAND JURY FOREPERSON: Thank you. Have a seat,
12 please.

13 MR. NOEL: Extras. Thank you.

14 **EXAMINATION**

15 BY MR. NOEL:

16 Q. Mr. Hernandez, could you state your full name
17 and spell your last name for the record, please.

18 A. David A. Hernandez, H-e-r-n-a-n-d-e-z.

19 Q. Mr. Hernandez, are you employed?

20 A. Yes, I am.

21 Q. By whom are you employed?

22 A. Pacific Gas & Electric.

23 Q. And what capacity are you employed by Pacific
24 Gas & Electric?

25 A. I am the senior employee evaluator. Senior
26 employee evaluator.

1 Q. What is a senior employee evaluator?

2 A. There's a group of journeymen subject matter
3 experts, and we go to all the different yards like
4 Oroville, Buellton. And we do evaluations of our
5 employees' safety and work procedures to make sure that
6 they are following not only safe work practices but have
7 a good understanding of the project that needs to be
8 performed.

9 Q. How long have you been in that position?

10 A. Since March of this year.

11 Q. So about four months?

12 A. Correct.

13 Q. What was your position prior to becoming a
14 senior employee evaluator?

15 A. I was a Bay Area transmission supervisor for the
16 Bay Area. That consists of everything from Vallejo over
17 the Pakinus (phonetic) Pass all the way to Moss landing.
18 I covered everything in Oakland, Richmond, San Francisco,
19 and I covered all the way out to Tracy.

20 Q. When you say you covered, what do you mean?

21 A. My responsibilities, my circuits. There was 318
22 circuits and 8,000 megawatts of power. I handled all the
23 maintenance and any type of emergency repairs that needed
24 to be done.

25 Q. How long have you been with PG&E?

26 A. It'll be -- it's going to be seven years now.

1 Going on seven years.

2 Q. Now, since your title -- your current title is
3 senior, I'm guessing you have some experience prior to
4 coming to PG&E?

5 A. I have over 39 years in the -- 38 years in the
6 industry.

7 Q. Which industry?

8 A. Say again.

9 Q. Which industry?

10 A. The utility industry.

11 Q. Where did you work before you worked for PG&E?

12 A. I worked for Florida Power and Light. When I
13 got out of the Marine Corps in 1981, I worked there for
14 21 years and then went into the private sector working
15 for utility contractors via helicopter.

16 Q. Now, you were telling me yesterday that you were
17 part of a specialized group working on helicopters. Do
18 you want to explain that to the jury.

19 A. I'm an instructor and I also worked for
20 helicopter contractors that work on the energized power
21 lines while they're still up in the air. We would
22 energize the helicopter and ourselves to the same
23 voltage. We would get off the helicopter onto the wire
24 and we would do -- perform our job functions if need to.

25 Q. What type of transmission lines are we talking
26 about here?

1 A. From 500,000 to 765,000 volts.

2 Q. So the big lines. You would fly up to those
3 lines in a helicopter and then get off the helicopter
4 onto the line?

5 A. Yes, Sir. Transfer.

6 Q. Can you just -- this is interesting. Could you
7 just explain to us how that is done.

8 A. Carefully. Basically, we would -- we'd be
9 called to perform emergency maintenance whether it's a
10 gunshot or -- without getting into too much of the
11 details, you know, just maintenance. Or also we would
12 come and do quality inspections of the lines. And the
13 only way to deliver us was in a bucket if it's
14 inaccessible, and we would use the helicopter.

15 And so we would do that, gunshots. We would
16 help fix, you know, gunshots on the conductor and things
17 like that too if needed.

18 Q. I'm guessing that to step off a helicopter onto
19 a 500 kV transmission line you need some specialized
20 equipment?

21 A. You need -- yes. You need to have good
22 situational awareness. You have to have a good
23 understanding of your duties, of what is expected, and
24 most of all safety to not turn that into a carnival show.

25 Q. Did you have specialized clothing and equipment
26 to use?

1 A. Right. We would wear what's called a Faraday
2 suit. It's actually a steel mesh suit with socks and
3 boots. We would put it on over our clothes. And that
4 way we'd become energized at the same potential of that
5 circuit. So I become like a bird on a wire. I become
6 500,000 volts or 765.

7 Q. All right. Let's get back to your employment
8 with PG&E. When you came to work for PG&E in 2013, what
9 did you do?

10 A. Hired on for PG&E I was the emergency night
11 supervisor. I took care of all the emergencies, hazards
12 that would happen at night. I would be the one to go out
13 there to respond along with one of our troublemen who's
14 out there. And if there's a fatality, a car accident, a
15 pole got hit late at night, I was the first responder
16 just like I was a first responder at the Napa earthquake
17 that morning. So I would respond to emergencies.

18 I had the -- what they call the Diablo Division.
19 And the Diablo Division of PG&E was basically Concord and
20 Antioch. And that was part of the Bay area region. And
21 that would encompass Oakland, Richmond, Napa, and Marin
22 for North Bay.

23 Q. When did you become a transmission line
24 supervisor?

25 A. 2017. I can't remember the exact date, but it
26 was either September or -- it was probably more likely

1 September of 2017.

2 Q. And as the T-line supervisor, were you
3 supervising the troublemen in the East Bay?

4 A. That's correct.

5 Q. And who else were you supervising?

6 A. I had my immediate reports which was three
7 linemen, a foreman, five troublemen. I was -- the
8 engineering department, the environmentalists, veg
9 management. Everybody would fall underneath my area of
10 responsibility.

11 Q. Now, in 2018 were your crews tasked to do some
12 work on an East Bay line known as the Parkway-Moraga
13 line?

14 A. Correct. It was a Parkway-Moraga 230 suspension
15 where the conductor is hanging down the tower. It
16 actually goes across the 24. So as you go through the --
17 before you go through the Caldecott, just to get you guys
18 familiar with the area, it's that last circuit that goes
19 over the top before you enter into the tunnel.

20 Q. What kind of work was your crew doing on that
21 line?

22 A. The immediate work was to change out insulators
23 on that tower on that Parkway-Moraga 230 -- 230,000 volt
24 line.

25 Q. Okay. Let's back it up. We're not just talking
26 about the one tower. We're going to talk about in a

1 minute.

2 Was your crew doing a bigger overall project on
3 the Parkway-Moraga line?

4 A. We had a landslide that affected two towers down
5 from that location, and it was during our heavy peak
6 rainy session at that time. And the tower foundation's
7 mountain gave away and it gave a landslide. So that
8 tower started to drift down. So we immediately made
9 corrections on that tower and then -- but that's what we
10 were out there for is for that immediate project.

11 Q. Did you have to de-energized the Parkway-Moraga
12 line?

13 A. Yes, we did.

14 Q. While the line was de-energized, did you conduct
15 inspections or have your crew conduct inspections of the
16 rest of the line?

17 A. What we had was we had a -- what we call a work
18 tracker that tracks all the different towers that we have
19 inspected. And this one project was due to be done to
20 change out these insulators. So what I did is I pulled
21 the work forward since we had all the -- the land part.
22 You know. There's a lot that goes on to get up into
23 these hills. There's a lot of rock that is brought in, a
24 lot of environmental recovery, you know, whether it's hay
25 bales or whatever. But we had a lot of work there. So
26 when I pulled the work up to change out, that's when I

1 worked on this line in question.

2 Q. Okay.

3 A. This tower in question.

4 Q. In your experience in almost 40 years in
5 utilities, when you have problems like you had on the
6 Parkway-Moraga where you have the couple of towers that
7 slide, is it common to go around and inspect the other
8 towers surrounding that?

9 A. Yes, yes. If we had an event like this, me -- I
10 can only speak for myself personally. But we would check
11 adjacent structures to make sure that the engineering
12 hasn't been changed, let's say, to different load
13 calculations and maybe finding something else. So
14 typically in our tailboards we always -- and I insure
15 that of my employees to always check adjacent structures.

16 Q. Also in your experiences is it common when a
17 line has to be shut down for some reason to take
18 advantage of that to do other inspections and maintenance
19 on the line?

20 A. Within the scope of the tower that slid we
21 changed out the additional two sides. And then this was
22 like the last one going to the -- going across the road.
23 So we would check the adjacent structures.

24 Q. You said that you were changing out the
25 insulators on the surrounding structures; correct?

26 A. Yes, Sir.

1 Q. And those insulators had been flashed?

2 A. No, Sir.

3 Q. Were they shot?

4 A. No, Sir.

5 Q. Were they cracked?

6 A. No, Sir.

7 Q. Why were you changing out the insulators?

8 A. Well, we change insulators just because they
9 were due to be changed out. They were there. I wanted
10 to make sure we put everything new back up there. And I
11 had this job already in the queue to work on another date.
12 But there was no immediate hazards with those insulators.
13 We just changed them out for routine maintenance.

14 Q. When you say that those insulators were due to
15 be replaced, why were they due?

16 A. PG&E makes an effort to try to update as much
17 hardware and equipment that they can. And that was just
18 one that was there. It was due to change out. There's a
19 lot more than just the age of the insulators and other
20 things like that. So we were there and I had all of that
21 matting roadwork done up on the hill. So I just wanted
22 to get done with that one also.

23 Q. Have you heard the term "If it's brown, take it
24 down"?

25 A. Yes.

26 Q. So what does that refer to?

1 A. That's that we are changing out as many brown
2 insulators as we can just to bring them -- get new
3 insulators put up in the air.

4 Q. What is the significance to the brown on the
5 insulators?

6 A. It's just the way the manufacturer made them
7 years ago. They used brown porcelain. You'll see towers
8 with clear or you'll see them as a white, but they're
9 actually a light gray. And then you will see some brown
10 insulators.

11 Q. So brown means they are old?

12 A. Pretty much.

13 Q. And if they're old, they need to be replaced?

14 A. In time, yes, they will need to be replaced.

15 Q. And so on the -- on the line that you were
16 working on, the Parkway-Moraga had brown insulators. And
17 so you had made a determination that those insulators
18 needed to be replaced; is that correct?

19 A. It was in the que to get done. They were brown
20 so we changed them out.

21 Q. Perfect. Do you know the age of the
22 Parkway-Morga line by chance?

23 A. No, I don't.

24 Q. So in the course of changing out the insulators,
25 did your crews bring something to your attention?

26 A. Right. My foreman -- after he changed out the

1 insulators, he called me and said the yoke plates looked
2 like they were a little worn. I said "Let's get them
3 changed out and get everything changed out on that and go
4 ahead -- I'm going to send those off to --

5 I didn't speak to the gentleman. ATS did our
6 training facility to do analysis on the steel and the
7 wear on them. And so I initiated a CAP report that I
8 think all of you may know.

9 Q. Okay. Let's walk back and break that down now.

10 MR. NOEL: Remember, hearsay can't be considered
11 for the truth of the matter. So what the foreman is
12 telling him -- telling Mr. Hernandez is hearsay. You
13 can't consider that as the truth, but you can consider
14 what Mr. Hernandez felt and what Mr. Hernandez saw.

15 BY MR. NOEL:

16 Q. So let's back this up. Your foreman calls you
17 and says something to the effect of "There's a problem
18 with the yoke plates"?

19 A. They look worn, yes.

20 Q. Okay. And so did you ask the foreman to remove
21 those yoke plates?

22 A. Yes.

23 Q. And did you ask the foreman to preserve those
24 yoke plates for you?

25 A. Yes.

26 Q. And did the foreman bring you yoke plates?

1 A. Yes.

2 Q. Now, what are the yoke plates?

3 A. The yoke plates are the plates that attach to
4 the end of the arm. So if you're looking at the tower as
5 it comes to a peak, the yoke plates fit in between them.
6 They are bolted in. And that is where the suspension
7 bells hang from.

8 Q. So they have a hole -- the yoke plate has a hole
9 in it for the hooks?

10 A. Yes.

11 Q. Okay. So you said you initiated a CAP; is that
12 correct?

13 A. Yes, Sir.

14 Q. And what is a CAP?

15 A. That is Corrective Action Program.

16 Q. All right. You have in front of you -- I forgot
17 to mark it on mine -- I believe what should be 381.

18 Exhibit 381. Do you see that exhibit?

19 A. Yes.

20 Q. And do you recognize that document?

21 A. Yes.

22 Q. And what is that document?

23 A. It's a CAP report.

24 Q. Is this the CAP report you initiated based upon
25 the yoke plates on the Parkway-Morga line?

26 A. Yes.

1 Q. Explain to us how to read this. And you can use
2 the big board where it's displayed.

3 A. Well, on first thought you have to fill out a
4 CAP report when you send things to the testing facility.
5 So in this discretion here back in March 28th when I did
6 the job, I initiated a CAP report to have the -- the
7 steel tested to see if there's a -- get more information
8 about the steel that I replaced.

9 Q. Okay. Go ahead. You can explain to us how to
10 read this.

11 This is something that you wrote; correct?

12 A. Correct.

13 Q. All right. So explain to us -- can you explain
14 to us how to read it.

15 A. So basically, I submitted a CAP report and I
16 also mentioned some other things that we have up there
17 like mud events, asking for equipment on short notice.
18 It's one of those lines -- 230 line that I want to be
19 prepared in case we have another event up there to
20 respond to.

21 Then on the -- on March 9th it went to Forest
22 Aneo (phonetic), and he submitted it to make the CAP
23 request more of a local event. And that's his
24 recommendation.

25 And the CAP was to be -- I went out there. I
26 inspected the plates on the other tower that crosses

1 the 24. That one had not the same tension because it was
2 a 400-foot -- minimum 400-foot drop from the tower that I
3 replaced down so that there wasn't that much down
4 pressure on that tower. Most of the pressure was on the
5 tower that I replaced the --

6 So I went out there just to double-check myself
7 and inspected it. And with that I waited for the CAP
8 report to come back. So I saw there was no hazard or
9 immediate hazard so I continued to wait for the program
10 to take its course.

11 They had a small delay on testing my evaluation
12 so they moved the date back to June 29th in order to
13 accommodate ATS to give me time to get me the report back
14 on the steel.

15 On June 22nd I got a tentative report that was
16 put into the CAP report that the life of the plates were
17 calculated to be another 28 to 25 years depending on load
18 and that those plates would have -- would have managed
19 for another 25 years with 4,000 pounds of pressure down
20 on them.

21 The wear of that is because of wind in that
22 crossing right there going back and forth over a period
23 every day for -- I'm not sure how many years since it was
24 installed. It appears to be within -- when I read the
25 report, I felt that there was no other follow up. We
26 already had changed out the other towers.

1 And so we changed out the other towers, and I
2 didn't see any immediate issues to move further. And of
3 the five towers I was planning on inspecting in large
4 scale was already included in the three to four towers.
5 So that covered the five towers plus the one I inspected
6 and replaced.

7 I inspected similar towers. I found no wear on
8 those and there was no further actions needed on that.
9 And the issue had been evaluated so I saw no more issue.
10 So I closed the CAP report.

11 Q. Okay. And you're on page 2 of 6 in your CAP
12 report?

13 A. On the next page.

14 Q. All right. Now, let's move on to 3 of 6. What
15 is 3 of 6 in the CAP report?

16 A. Three of six. You want to show me three of six?

17 Q. Yeah. See that. You should be down in the
18 bottom of the page. It says page 3 of 6.

19 A. From Franklin Lou?

20 Q. What is this page is basically what --

21 A. Let me see if I can find it. "ATS reports the
22 insulators from the 230 Parkway-Moraga structure and
23 three from Bahia-Moraga 230 transfer line is completed.
24 ATS reports the wear attributed to wind-driven swing, as
25 I mentioned earlier. And in the most severe worn plates
26 the thickness of the load-bearing ligament measurement,"

1 without getting into the numbers there, "design value of
2 .75. Plates believed to be stalled in 1946."

3 So these plates had a wear rate estimated of
4 remaining life in design calculations of -- I said
5 earlier -- another 25 years.

6 Q. Right. So this is your summary of the report
7 that you were provided by ATS?

8 A. That is the summary from Dan Tilly. On the next
9 page if you go back to the next page on 621.

10 Q. Okay.

11 A. He does our analysis. His name is on the very
12 bottom.

13 Q. Oh, okay.

14 A. You see him right down there?

15 Q. Yes. Dan Tilly.

16 A. Dan Tilly is very, very thorough. And I really
17 enjoy working with him on his recommendations and his
18 thought process when he did the factual -- not hearsay
19 but factual analysis of the plates.

20 Q. Okay. And then on to page 4 of 6. There's a
21 photograph in the top corner.

22 A. Right. That's the wear on that yoke plate. The
23 picture that is shown there is the wear on the yoke
24 plate.

25 Q. Are you familiar with the term "keyholing"?

26 A. Yes.

1 Q. And is that a description of the wear you saw?

2 A. That is definitely keyholing.

3 Q. And then page 5 of 6.

4 A. Five of six is the tower that I was working on.

5 Q. All right. Describe how to find the tower on
6 page 5 of 6.

7 A. It's in the middle there. There is -- you can't
8 see it. But if you actually look at the paper, in dark
9 letters you'll see the tower number in black with the
10 tower number right there (indicating). And that gives
11 you proximity of the tower.

12 Q. And are you referring to a Goggle Map or some
13 type of satellite?

14 A. That's what we have is an app that's called Map
15 Plus. It's an app that we have at PG&E. It's a great
16 app. It shows you -- if you go down even to lat lines to
17 where a transformer might be or the transmission, it
18 shows the line segment on our app. It's called Map Plus,
19 not Goggle Map.

20 Q. There's a blue circle and then there's kind of a
21 blue balloon. What do those represent?

22 A. That blue balloon I have no idea what that
23 balloon is. The dot is the location of maybe a -- of a
24 unit where you're parked at to that tower or where your
25 GPS location is.

26 Q. Okay. And then there's a red -- what looks like

1 a hand-drawn red circle or oval.

2 A. I have no idea who drew that red circle in
3 there.

4 Q. Okay. All right. Finally on page 6 of 6.

5 A. Yes, Sir.

6 Q. What are we looking at?

7 A. We're looking at three plates on the three
8 conductors, three phases going across. And that's the
9 finding on them. They all three were sent to get tested.

10 Q. So you sent those off to be tested, like you
11 said, to ATS?

12 A. Yes, Sir.

13 Q. And eventually you said you received a report
14 from ATS?

15 A. Yes, Sir.

16 Q. Direct your attention to what's marked as
17 Exhibit 382.

18 A. Yes, Sir.

19 Q. Point of view. And ask you if you recognize the
20 document marked as 382.

21 A. That's the results, a more in-depth thorough
22 with all the documentation in there showing -- yes, this
23 is the document.

24 Q. Okay. So 382 is the report on the testing for
25 the yoke plates that you sent in?

26 A. Correct.

1 Q. Now, you said that several times that ATS
2 estimated the life on those yoke plates as 25 to
3 28 years?

4 A. Correct.

5 Q. And you said that the -- that's in addition --
6 25 to 28 years from when you submitted it; correct?

7 A. Correct.

8 Q. And you said that the -- they were estimated
9 installed in 1946?

10 A. Correct.

11 Q. So that would make them 72 years old?

12 A. Yes, Sir.

13 Q. Which would make the estimated life 97 to
14 100 years; correct?

15 A. That report is of the tower. When that tower
16 was installed does not mean that that tower was worked on
17 prior to that.

18 Q. Okay. But one of the assumptions that they make
19 is that that yoke plate had been installed and was an
20 original part that had been installed in 1946 and it had
21 been wearing since then; correct?

22 A. That is in the document, yes, Sir.

23 Q. And so based upon that assumption they estimate
24 that the life of those holes is between 97 and 100 years?

25 A. That's the assumption that was made, yes.

26 Q. Okay. Now, this report was issued in June of

1 2018; correct?

2 A. Correct.

3 Q. Are you aware of any action taken by PG&E after
4 this report based upon this report?

5 A. No, Sir.

6 Q. For instance, at that time as a T-line
7 supervisor were you instructed to identify the
8 90-plus-year-old lines in your district and your area and
9 inspect them?

10 A. No, Sir.

11 Q. To your knowledge, was any T-line region
12 instructed to do so?

13 A. I can't answer that. I don't have the
14 information, the factual information.

15 Q. Okay. But did you yourself take action on
16 the -- after receiving the report?

17 A. There was no need to follow up on it because I
18 had already made the corrective action to fix it.

19 Q. Okay. Did you inspect other towers in the area?

20 A. No, Sir.

21 Q. We're going back to page 2 of 6 in your CAP
22 report. In the entry 8/14/19 didn't you write "Inspected
23 similar towers, plates. No further action required"?

24 A. Correct.

25 Q. All right. So that -- after the report came
26 out, you went back and did some additional inspections?

1 A. Just to make sure I closed everything, that
2 anything hadn't changed before I close this issue out.

3 Sorry about that, Guys.

4 MR. NOEL: That's okay.

5 All right. I believe that's all I have.

6 Jurors have any questions for this witness? I'm
7 not seeing any hands or any notepaper made into paper
8 airplanes flying at me.

9 So, Mr. Hernandez, thank you very much. I
10 believe that's all we have for you today.

11 THE WITNESS: Thank you.

12 MR. NOEL: She will have an admonishment for
13 you.

14 THE WITNESS: Thank you.

15 MR. NOEL: Madam Foreperson.

16 THE WITNESS: Thank you.

17 And for you -- this is me personally. I lost my
18 home in Hurricane Andrew, and I feel -- this is me
19 talking personally. My heart goes out to everybody in
20 Butte County for what they went through so . . .

21 GRAND JUROR NUMBER FIFTEEN: Thank you.

22 GRAND JURY FOREPERSON: Mr. Hernandez, before
23 you leave, I need to read the admonishment to you.

24 You are admonished not to discuss or disclose at
25 any time outside of this jury room the questions that
26 have been asked of you or your answers until authorized

1 by this grand jury or the Court. A violation of these
2 instructions on your part may be the basis for a charge
3 against you of contempt of court. This does not preclude
4 you from discussing your legal rights with your own
5 attorney.

6 Mr. Hernandez, what I have just said is a
7 warning not to discuss this case with anyone except the
8 Court, your lawyer, or the district attorney.

9 Do you understand?

10 THE WITNESS: Yes, Ma'am.

11 GRAND JURY FOREPERSON: Okay. Thank you very
12 much for coming in today.

13 THE WITNESS: Thank you.

14 MR. NOEL: You have to leave those up there.
15 Believe me, we've already had somebody walk off with the
16 exhibits. We had to chase them down.

17 Thank you, Sir.

18 [Mr. Hernandez exits the courtroom and

19 Captain Tom Kluge enters the courtroom.

20 GRAND JURY FOREPERSON: You've been here before.
21 I'm going to swear you in again if you don't mind.

22 It's Kluge?

23 THE WITNESS: Yes, Ma'am.

24 GRAND JURY FOREPERSON: Okay. Captain?

25 THE WITNESS: Yes, Ma'am.

26 GRAND JURY FOREPERSON: Thank you.

1 Captain Kluge, please raise your right hand.

2 You do solemnly swear that the evidence you
3 shall give in this matter pending before the grand jury
4 shall be the truth, the whole truth, and nothing but the
5 truth so help you God?

6 THE WITNESS: It will be.

7 GRAND JURY FOREPERSON: Thank you. Have a seat,
8 please.

9 MR. NOEL: Ready?

10 **EXAMINATION**

11 BY MR. NOEL:

12 Q. Captain, again for the record can you state your
13 full name spelling your last name.

14 A. Thomas Kluge, K-l-u-g-e.

15 Q. Remind us what you do for a living.

16 A. I'm a fire captain specialist for the Butte Unit
17 with Cal Fire as an investigator.

18 Q. You're a peace officer; correct?

19 A. I am a peace officer.

20 Q. When we last heard from you way back in April,
21 we talked about the origin and cause investigation of the
22 Camp Fire.

23 A. Yes.

24 Q. Did your job stop with the origin and cause
25 investigation?

26 A. No, it did not.

1 Q. So after you left and after you turned over the
2 scene to 27/222, what did you do?

3 A. To complete my origin and cause investigation I
4 wanted to find out what events lead up to the failure of
5 the equipment of tower 27/222. As part of my original
6 investigation I requested a bunch of information from
7 PG&E. And they provided information that helped lead me
8 to understand that there may be other issues along that
9 same power line, the Caribou-Palermo line.

10 Q. All right. So let's walk through your
11 investigation starting in mid November.

12 You have in front of you Exhibit Number 383. Do
13 you recognize the exhibit? It's a two-page exhibit. I
14 guess it didn't get stapled together.

15 A. Yeah, I recognize this.

16 Q. What is Exhibit 383?

17 A. This is a submission from PG&E to California
18 Public Utilities Commission regarding the fire that
19 occurred on November 8th, the Camp Fire.

20 Q. Why is the submission from PG&E to the CPUC
21 significant to you?

22 A. This identified that at or around the time the
23 fire started the Caribou-Palermo line sustained an
24 outage.

25 Q. What do you understand an outage to mean?

26 A. That they had an event that occurred on their

1 line that resulted in a loss of power to their line.

2 Q. Let's paperclip these together for right now.

3 A. Okay.

4 Q. Why is this outage significant?

5 A. The outage would have been an expected result of
6 the failure of equipment and the discharge that we
7 believe occurred at the Caribou-Palermo line at the
8 27/222 tower.

9 Q. And what time did PG&E file an indication that
10 that occurred?

11 A. At 6:15 hours on November 8, 2018.

12 Q. At what time is the fire first reported?

13 A. The fire was first reported at 6:28 a.m., 6:29.
14 I'd have to refer to the exact call log to verify.

15 Q. So later did you become aware that PG&E had
16 filed a report on the incident with the California Public
17 Utilities Commission?

18 A. Aside from this report?

19 Q. Yes.

20 A. Yes.

21 Q. And were you able to obtain a copy of that
22 report?

23 A. Yes, I was.

24 Q. And how did you obtain said report?

25 A. It was available on the Internet. I saw it in
26 the news and was able to track it down that way.

1 Q. So directing your attention to Exhibit 384.

2 A. Two pages.

3 Q. Two pages. And let's paperclip them together
4 because somehow they're not stapled.

5 A. Okay. They are paperclipped.

6 Q. What is Exhibit 384?

7 A. This is a December 11th submission from PG&E to
8 the Public Utilities Commission regarding an electric --
9 excuse me, a -- let me look up exactly what that means.
10 Double-check. It's an electrical incident report. Yeah.
11 So this is their report on what they believed happened at
12 the Caribou-Palermo 27/222 tower.

13 Q. Okay. Why is this report significant?

14 A. This report basically says that PG&E was aware
15 that there was an outage. They understood that there was
16 a failure at the 27/222 tower. They were able to find
17 and get specific documentation identifying the specific
18 failure.

19 Q. The report also states that after the failure at
20 6:15 a.m. the line was then de-energized; correct?

21 A. Yes.

22 Q. So that would indicate that the line was
23 energized at the time of 6:15 a.m.?

24 A. Yes.

25 Q. And going back to your first time on the stand
26 when we talked about the origin and cause, it was your

1 opinion based upon everything that you saw that the line
2 was energized when the C-hook broke and the jumper made
3 contact with the steel structure; correct?

4 A. Yes. There's evidence that there was an
5 electrical discharge phase to ground. And that was also
6 reported to me from Jim Nolt who verified that
7 information.

8 Q. And then going on to the second page of the
9 report, the PG&E report also acknowledges a second fire;
10 correct?

11 A. Yes.

12 Q. And what does PG&E say about the second fire?

13 A. Four customers on Flea Mountain were affected by
14 the distribution outage of the Big Bend 110112 kV
15 circuit.

16 Q. What time did that circuit experience a problem
17 according to the PG&E report?

18 A. Approximately 6:45 a.m. on November 8th, 2018.

19 Q. So beginning in -- well, walk us through your
20 investigation once you finished physically up at the site
21 of 27/222.

22 A. Well, there's several things we were trying to
23 determine. One of them was as part of the investigation
24 we try and determine a timeline of how events occurred.
25 So we were able to review these reports, footage, data
26 from the reclosers. We were able to review data from

1 Smart Meters that were affected by the outages.

2 And one thing we tried to determine was, you
3 know, which fire had occurred first and then whether or
4 not they were related to each other and if one was a
5 cause of the other or if they're individual separate
6 starts.

7 Q. Did you also do an investigation into the
8 Caribou-Palermo line itself and specifically 27/222?

9 A. I did.

10 Q. What type of investigation?

11 A. It was -- I was trying to identify and help
12 understand the parts that we observed on the tower, the
13 equipment, what they were, when they got there, what was
14 their purpose, what was their function, how long had they
15 been there, when were they designed? Just trying to
16 figure out as much history back to basically the building
17 of the line and why it was built and what allowed it to
18 be built and what -- what patents were developed in order
19 for this even to be possible.

20 Q. As a fire captain specialist and a peace officer
21 for Cal Fire, prior to November 8, 2018, had you
22 investigated fires potentially caused by PG&E equipment?

23 A. I have.

24 Q. On how many occasions?

25 A. To be specific I would have to look back but
26 more than a dozen at least.

1 Q. During the course of these -- of those previous
2 investigations, have you become familiar with the
3 regulations and requirements on PG&E as a utility?

4 A. Yes.

5 Q. And specifically the CPUC and the Public
6 Resources Codes control PG&E and how they maintain and
7 repair their equipment?

8 A. Yes. Before the fire, it was limited. I was
9 more understanding of the Public Resources Code which are
10 in line with the Public Utility Code.

11 Q. And in your investigation did you become
12 familiar with the CPUC requirements for PG&E for
13 maintaining the transition lines?

14 A. I did.

15 Q. Based upon those understandings, your prior
16 understanding of the Public Resources Code and your
17 learning about the Public Utilities Code and the
18 California Public Utilities Commission, did you request
19 certain types of records from PG&E?

20 A. I did.

21 Q. What types of records?

22 A. I was -- I requested all the maintenance that
23 had occurred on that line initially going back a few
24 years and eventually going back as far as they could
25 find. As more information came in we expanded our
26 request based on the information we received and the

1 first data received.

2 Q. Why did you want that information?

3 A. We were trying to establish the fact pattern
4 that led to the fire.

5 Q. Why is that important?

6 A. My job is to uncover all the truths about an
7 incident and provide a complete report. Any information
8 that is pertinent to a crime whether it can exonerate or
9 help define whether or not somebody is responsible needs
10 to be brought to light. An investigation works both
11 ways. Having all the information available to us at our
12 fingertips to read, analyze, and present is important to
13 a fair investigation.

14 Q. Are you familiar with the Exemplar Tower
15 Project?

16 A. I am.

17 Q. What is the Exemplar Tower Project?

18 A. The Exemplar Tower Project was a series of
19 towers similar in build and design to 27/222. There were
20 several towers that were identified as being potentially
21 built similar with the same schematics, same purpose.
22 And that is they're a transposition tower. And we wanted
23 to identify if this was a one-off incident or if there
24 was potential for another incident to occur similarly.

25 Q. When you say "identified as similar," identified
26 by whom?

1 A. There was a couple of investigators including
2 myself where we were identifying the towers. It was
3 myself and Nick Moore.

4 Q. You identified 27/222 as a transposition tower?

5 A. Yes.

6 Q. Included in the records that you requested from
7 PG&E did you get a listing of other transposition towers
8 on the Caribou-Palermo line?

9 A. I did along with every other tower on the line
10 as well.

11 Q. Okay. And were you, working together with
12 Investigator Moore, able to put together a map showing
13 the transposition towers similar to 27/222 or what
14 appeared to be similar to 27/222?

15 A. Yes, though it doesn't include every tower on
16 the line.

17 Q. Right. You have in front of you what is marked
18 as 385?

19 A. Yes.

20 Q. Do you recognize Exhibit 385?

21 A. I do.

22 Q. And what is Exhibit 385?

23 A. Exhibit 385 is a Google Earth image of the area
24 around the Camp Fire that includes pinpoints with numbers
25 that are representative of transposition towers on the
26 Caribou-Palermo line.

1 Q. So using PG&E's name and convention for the
2 towers?

3 A. Yes, it appears to be.

4 Q. So 20/160, 24/199, 27/222 and so forth?

5 A. Yes.

6 Q. So you put together a list of the similar
7 transposition towers of what you believed to be similar
8 transposition towers; correct?

9 A. Correct.

10 Q. And what action was taken on that list?

11 A. We made an initial flight to try to identify
12 some of these towers and take a look at them. Some of
13 them are pretty inaccessible especially under the
14 conditions -- the weather conditions we experienced this
15 past winter. So we were able to take a flight and
16 identify that there were other transposition lines or
17 transposition towers on the Caribou-Palermo line.

18 Q. Do you remember when that initial flight took
19 place?

20 A. I believe it was December 30th although I'd need
21 to check the flight log.

22 Q. In terms of scheduling flights and examinations
23 of the line, what kind of factors went into when you
24 could do those inspections?

25 A. There was a lot of factors. Availability.
26 Weather was probably our biggest obstacle. There are a

1 lot of ways to prevent a helicopter from flying. Also,
2 washed out roads made access very difficult. That's why
3 there was a bit of a delay getting out there initially.

4 Q. So you flew the line on December 30th?

5 A. Yes.

6 Q. And then subsequently Investigator Moore flew
7 and photographed the transposition towers; correct?

8 A. Correct. I attempted to photograph. However,
9 the camera I was using didn't have a stabilizing lens and
10 those pictures didn't come out with any decent resolution
11 that was helpful.

12 Q. So now I want to go to February 14th. When you
13 were up at 27/222, you testified previously about
14 removing all the hardware off of the tower. Remind us
15 what hardware you took.

16 A. The hardware I took were the -- was the
17 conductor, the conductor support bar, the insulator
18 strings which consisted of several insulator bells, the
19 insulator hooks or what was left of the hook, the support
20 arms, and the -- what we call the dead-end insulator arm
21 and hook or insulator string and hook as well.

22 Q. What was done with those items after they were
23 removed from 27/222?

24 A. They were taken to a storage facility, large
25 evidence storage and documented.

26 Q. And when you say "large evidence storage," I'm

1 guessing you're not talking about a storage facility or
2 public storage facility where anybody can rent?

3 A. No. This is an evidence storage facility. It's
4 under double lock and unavailable to the public.

5 Q. This is a Cal Fire evidence storage facility?

6 A. Yes, it is.

7 Q. On February 14th did you take the evidence out?

8 A. I did.

9 Q. Why?

10 A. We had a forensic photographing team available
11 to us from the F.B.I., and they were going to
12 forensically photograph all our evidence for us.

13 Q. Now, you should have in front of you
14 Exhibit 386.

15 A. I do.

16 Q. What's 386?

17 A. That appears to be a photograph of the -- what I
18 would call the left phase support arm bracket.

19 Q. And all of these photographs in this series are
20 off the 27/222; correct?

21 A. Oh, yes. Well, this one is so far, yes.

22 Q. All right. So the left phase would be the phase
23 upon which the hook failed; correct?

24 A. Yes.

25 Q. And 387?

26 A. I believe this is also the same bracket as

1 mentioned in 386 but a different angle.

2 Q. And 388.

3 A. Again, the same bracket as mentioned in 386 at a
4 different angle.

5 Q. And 389.

6 A. This is a picture of the same bracket, the same
7 wear just without the forensic scale.

8 Q. And 390.

9 A. This would be the same support arm from the left
10 phase of 27/222, but this would be the angle iron itself,
11 I believe. Yes. There is the support arm itself, not
12 the bracket on the support arm.

13 Q. Okay. So 386 through 389 -- or 386 through 388
14 are the -- what we were referring to as the retrofitted
15 bracket off the arm; correct?

16 A. Yes.

17 Q. And 389 is the actual original hole, the bracket
18 itself?

19 A. Yes. And the name of that bracket is an ST-20.

20 Q. How did you discover that?

21 A. The name of the bracket?

22 Q. Yes.

23 A. That was part of a schematic drawing we received
24 as one of our requests on the as-builts on how the towers
25 were placed in their original drawings they were
26 designed. It had all of the pieces of equipment

1 identified; the names, lengths, weights, descriptions.

2 Q. Did the as-built as far as the bracket, the
3 ST-20, indicate when that bracket was installed?

4 A. I don't have any indication when the bracket was
5 installed on this tower. There is no record that we
6 received saying that bracket was installed.

7 The original as-built didn't show that bracket
8 being part of the transposition support arm. It was only
9 designed -- as far as I could find in the material given
10 to me from PG&E through our request, that ST-20 was only
11 supposed to be used on the transposition overhead support
12 superstructure that we identified in the previous one.

13 Q. All right. All right. Exhibit 391. What's in
14 Exhibit 391?

15 A. Exhibit 391 is a photograph of the ST-20 bracket
16 from CP 27/222 from the left phase without a scale.

17 Q. And 392.

18 A. Exhibit 392 is the broken phase of the
19 suspension support hook or C-hook from the left phase of
20 CP 27/222 with a scale.

21 Q. So this is our broken hook?

22 A. Yes, it is.

23 Q. Was the other half of this hook ever found?

24 A. Not to my knowledge.

25 Q. What types of efforts were made at 27/222 to
26 find the other half of this hook?

1 A. The investigation team, including myself and the
2 other people identified previously, we used eyes, grid
3 search pattern, metal detectors, magnets over the course
4 of several days. Every time we were up there we were
5 looking for this piece of metal. We were unable to
6 locate it.

7 Q. And on to Exhibit 393. Tell us what Exhibit 393
8 is.

9 A. Exhibit 393 is the hook. And its in the bell
10 that we found it in. This was originally inverted
11 hanging from the conductor of CP 27/222. And this would
12 have been the left phase hook and the first bell.

13 Q. Exhibit 394. Do you have that photograph?

14 A. I do.

15 Q. What is 394?

16 A. Exhibit 394 is the right phase suspension hook
17 or insulator hook from CP 27/222.

18 Q. And what is significant about the hook in the
19 picture or Exhibit Number 394?

20 A. It has a significant wear pattern to it.

21 Q. And what do you mean by that?

22 A. There is a groove worn into the hook at the
23 contact point where it met the support hardware.

24 Q. Now, there's all kinds of -- this is a great
25 photograph. There's all kind of numbers that are visible
26 both on the hook and the bell.

1 A. Yes.

2 Q. Most obviously one RT zero with a slash through
3 it?

4 A. Phi.

5 Q. In black?

6 A. Yes.

7 Q. And do you know who wrote those numbers?

8 A. On this specific bell, yes. That was written --
9 placed on there by a PG&E employee although I'd have to
10 refer to the entry log to get the exact name.

11 Q. A PG&E employee when?

12 A. The moment it was collected before they turned
13 it over to me.

14 Q. All right. So after the fire?

15 A. Yeah. After the fire, yeah.

16 Q. During evidence collection around November 14th
17 or 15th?

18 A. Yeah. And it was under my direction to write it
19 on there.

20 Q. Right. What about the other writings and
21 numbers underneath?

22 A. The casting marks?

23 Q. Yes.

24 A. Yes. Those are -- that is patent information
25 and a category number.

26 Q. Since November have you had an opportunity to do

1 any research?

2 A. I have.

3 Q. What type of research?

4 A. I looked into patents and information from the
5 manufacturer of the equipment.

6 Q. Now, was the manufacturer of the equipment
7 listed on either the bells or the hooks?

8 A. There was stampings that identified -- it didn't
9 have exact names, but it had a company insignia.

10 Q. Were you able to identify the company insignia?

11 A. I was.

12 Q. And what did you determine the manufacturing
13 company to be?

14 A. The Ohio Brass Company.

15 Q. Is that for the hook or bells or both?

16 A. Both.

17 Q. How did you determine that?

18 A. Through an Internet search and then comparing
19 information from catalog -- original catalog information
20 from the Ohio Brass Company.

21 Q. Now, you said earlier that PG&E also provided
22 as-built information on the Caribou-Palermo line?

23 A. They did.

24 Q. And did that information also have reference to
25 equipment suppliers?

26 A. It did.

1 Q. And who did that information list as the
2 supplier of the hooks and the bells?

3 A. After we had already identified the potential
4 company, we received a data presentation from PG&E that
5 identified these specific type C-hooks that have the "B"
6 insignia on it, the raised "B" with no circle, as being
7 an Ohio Brass hook. And that particular schematic was
8 dated 1911.

9 Q. How about the bells? What were you able to find
10 out about the bells?

11 A. The bells I'd have to refer to that specific
12 schematic again. But the bells with the same design --

13 May I stand up?

14 Q. Sure, absolutely.

15 A. Am I loud enough that everybody can hear me?

16 Okay. So the specific shape of the bell end
17 here --

18 Let me stand over here so everybody can see.
19 The specific shape of the bell end helped me identify the
20 year that these bells were created. Also, the shape of
21 the clay casting and the rings and the -- several rings
22 inside the clay casting and their height would help me
23 determine that these particular bells were made sometime
24 between 1911 and 1932.

25 Q. And did the documentation provided by PG&E
26 identify when the Caribou-Palermo line was built?

1 A. It did.

2 Q. When was -- according to the documentation
3 provided by PG&E, when was the Caribou-Palermo line
4 built?

5 A. Sometime between 1920 and 1921.

6 Q. And did the documentation include history of the
7 Caribou-Palermo line?

8 A. It did.

9 Q. And just briefly, from the documentation
10 provided to you by PG&E, can you give us a history of the
11 Caribou-Palermo line.

12 A. A brief history is that the Caribou-Palermo line
13 was originally installed as the -- we have two documents;
14 one says the Caribou-Valona and one says the
15 Caribou-Golden Gate line. Basically it went from the
16 Caribou Power House which was fed off of Lake Almanor out
17 to Golden Gate as power for San Francisco. And that was
18 built by the Great Western Power Company. This was the
19 third transmission line in the state of California by the
20 Great Western Power Company. And then I'd have to refer
21 to the exact date, but essentially PG&E bought the line
22 and made it part of their system.

23 MR. NOEL: And Valona, for the record,
24 V-a-l-o-n-a.

25 THE COURT REPORTER: Thank you.

26 BY MR. NOEL:

1 Q. All right. So let's move on to Exhibit 395.

2 See Exhibit 395?

3 A. I do.

4 Q. What are we looking at on 395?

5 A. I believe this is a close-up of the right phase
6 insulator suspension hook with a scale from Caribou
7 27/222.

8 Q. So not the hook that broke obviously?

9 A. Not the hook that broke.

10 Q. The opposite arm; correct?

11 A. Yes.

12 Q. And what's significant on photograph
13 Exhibit 395?

14 A. I see that there's a 10 millimeter --
15 approximately a 10 millimeter wear pattern in the hook
16 which is consistent with the same -- what I believe to be
17 the same wear pattern as the failed hook on the left
18 phase of the insulator string from the Caribou-Palermo
19 27/222.

20 Q. So you are familiar with the term "channeling"?

21 A. Yes.

22 Q. And would channeling apply to the wear that
23 you're seeing here?

24 A. Yes.

25 Q. So you're saying that there's basically a
26 10 millimeter-wide channel that's been cut into the

1 suspension hook; is that correct?

2 A. Yes, at the point of contact with the support
3 leg bracket, the ST-20.

4 Q. All right. Let's move on to 396. And tell us
5 what we're looking at in 396.

6 A. This is a similar picture as 395 showing the
7 same wear pattern of the same hook.

8 Q. All right. So let's go back to the Exemplar
9 Tower Project. You said that on January 31st
10 Investigator Moore flew the line and photographed the
11 line; correct?

12 A. Yes, that's correct.

13 Q. What did you do with the photographs provided by
14 Investigator Moore?

15 A. I actually drove out to try to identify those
16 and take a look at them and see if there was any
17 significant information we could gather from them when --
18 again when the weather was amicable to do so.

19 Q. At some point did you determine a list of the
20 exemplar towers from which you wanted to collect
21 evidence?

22 A. Nick Moore and I together identified towers that
23 would be.

24 Q. Which towers were those?

25 A. That would be -- initially, if I refer back,
26 quite a few towers here. Make sure I have all my numbers

1 correct.

2 Q. It's 385.

3 A. Okay. 385. So originally we identified 24/199,
4 32/260, and 35/281. There was a fourth tower that we
5 initially believed to be a transposition tower, but upon
6 further review it was determined it was not a
7 transposition tower. And then later we also identified
8 20/160 as a transposition tower that we wanted to take a
9 look at.

10 Q. Why did you identify those specific towers?

11 A. They are in close proximity to the original
12 failure of 27/222. They were also transposition towers
13 of the same type hardware and in the same canyon with
14 similar weather patterns.

15 Q. Did you also review the photographs that were
16 taken by Investigator Moore?

17 A. I did.

18 Q. Did you take those photographs into account in
19 determining which towers you wanted to look at?

20 A. I did.

21 Q. So once you identified the towers 24/199, 32/260
22 and 35/281 of being of interest, what did you do next?

23 A. I wanted to document and preserve those towers
24 in their native position so I had our LiDAR team that
25 came out and did the initial scanning of our towers in
26 our original scene and had them also scan the exemplar

1 towers as well.

2 Q. Remind us what LiDAR is.

3 A. Light and distance range detection. I know it
4 doesn't really fit the acronym, but that's what it is.

5 Q. How do you use LiDAR to document something?

6 A. So LiDar uses basically sonar, photography and
7 puts them together and is able to basically create a
8 digital version of whatever objects. It's used through
9 many industries including PG&E for their vegetation
10 management project.

11 Q. So you asked the LiDAR team to document 24/199,
12 32/260, and 35/281; correct?

13 A. Correct.

14 Q. And did you go with the LiDAR team to do so?

15 A. I did.

16 Q. What happened when you arrived at 35/281?

17 A. I saw that the equipment that was originally
18 photographed by Nick Moore had been replaced or some of
19 it had been replaced.

20 Q. How could you tell?

21 A. The equipment was completely different. I was
22 able to -- I had the photographs with me. I was able to
23 compare and noticed that the insulators were different,
24 the support arms were different, much of the equipment
25 was much newer. Completely different.

26 Q. Was the Caribou-Palermo line energized at that

1 point?

2 A. No, it was not, not to my knowledge.

3 Q. So all the equipment that you wanted off of --
4 well, let's back that up.

5 What equipment did you want off of the exemplar
6 towers?

7 A. I thought the similar equipment that we pulled
8 from 27/222 was important to pull the same equipment from
9 these other towers to have a full comparative analysis
10 done to find out again if this is a one -- you know,
11 one-time incident or if there was any indication or
12 evidence that would explain why this event had occurred.

13 So I wanted the -- again, I wanted the conductor
14 itself, the stabilizing bar, the corona plates, the
15 insulator bells attached to the insulator string, the
16 support C-hooks that were attached to the insulator
17 hooks, the ST-20 brackets if they were in place, and the
18 support arms, the dead-end insulator string, and the hook
19 that was attached to the dead-end insulator string.

20 Q. Which of those parts were gone off 35/281 when
21 you went to do the LiDAR?

22 A. Everything but the insulators. Or everything
23 but the conductor.

24 Q. Were you able to track down the transposition
25 hardware taken off of 35/281?

26 A. Yes. The request was made from PG&E to provide

1 that information, and they complied.

2 Q. On March 8, 2019, did you seize that evidence?

3 A. I did.

4 Q. From where?

5 A. That was voluntarily provided to us from PG&E.
6 It was being stored at a contract company in -- on Pardee
7 Street in Berkley.

8 Q. Do you remember the name of the company?

9 A. I would have to refer to my documents to make
10 sure I had the exact name correct but --

11 Q. Does Fire Cause Analysis sound familiar?

12 A. Yep. That's them.

13 Q. Are you familiar with Fire Cause Analysis?

14 A. I am.

15 Q. What is Fire Cause Analysis?

16 A. Fire Cause Analysis is a -- they do several
17 things. They do private industry fire investigations.
18 They store evidence. They are the private sector version
19 of my job.

20 Q. So you were able to obtain the parts off of
21 32/281 from Fire Cause Analysis?

22 A. Yes.

23 Q. In the next group of photos I'd like to walk you
24 through the evidence that you were able to get back from
25 Fire Cause Analysis.

26 First up is Exhibit 397. Do you have that in

1 front of you?

2 A. I do.

3 Q. What is Exhibit 397?

4 A. This -- these are the -- or this is a package of
5 the insulator strings from 35/281. And this is how it
6 was presented to us.

7 Q. By Fire Cause Analysis?

8 A. Yes. This is their packaging.

9 Q. So palletized and wrapped?

10 A. Palletized, wrapped with the straps around them,
11 and tagged as you see in the photograph in 397.

12 Q. All right. Moving on to 398, what does 398
13 depict?

14 A. Exhibit 398 is a photograph of the C-hooks from
15 the insulator strings. I had to cut open the packaging
16 to expose them. And the markings on the pallet are
17 markings that I had put there.

18 Q. You put the markings or the writing on the
19 pallets?

20 A. I did.

21 Q. And describe for us what the writing says.

22 A. So on the left side of the photograph it says
23 "the west or right phase." And that's referring to the
24 equipment as it was natively on the CP 35/281 line. And
25 on the right side of the photograph is the east or the
26 left phase.

1 And I acquired that information from the
2 evidence tags that were placed at the corona sheets. And
3 as you can see in photograph or Exhibit 397 I transferred
4 the information. And they'll use that to identify which
5 piece is which.

6 Q. You're talking about these tags right here on
7 397?

8 A. Yes. Those are the evidence tags.

9 Q. And that is something that was placed on the
10 parts by PG&E?

11 A. I do not know who put them there specifically,
12 but I know that Fire Cause Analysis said that those were
13 accurate.

14 Q. Okay. All right. So what do you see of
15 significance on 398 with the hooks?

16 A. There is significant wear pattern that's
17 referred to as channeling on the C-hooks of both hooks.
18 And also something significant is that on the east left
19 phase you can see the in photograph there's the raised
20 "B" without a circle on it.

21 Q. That's this right here (indicating)?

22 A. Yes.

23 Q. Why is that significant?

24 A. That tells me that was a similar casting by the
25 Ohio Brass Company made around -- within the same time
26 period as the failed hook on the Caribou-Palermo 27/222

1 hook that failed.

2 Q. Now, you said that you were able to research
3 these parts and the hooks based upon the corporate logos
4 or the stamping; correct?

5 A. Yes.

6 Q. And the company was identified as Ohio Brass?

7 A. Correct.

8 Q. Now, based upon your research was there a point
9 around the time -- around 1911 and 1921 when Ohio Brass
10 changed their corporate stamp?

11 A. Yes, they did.

12 Q. And what was the initial stamp or the stamp as
13 of around 1910, 1911 and the later stamp of 1921?

14 A. The first part of your question is a raised "B"
15 was their original casting logo. And then after that
16 they switched to a circle around -- or an oval around the
17 "B" which represented Ohio Brass.

18 Q. Were you able to determine exactly when that
19 switch occurred?

20 A. There's conflicting information, but I believe
21 it's around 1921.

22 Q. And you were able to find historical photographs
23 or depictions of the hook with the raised "B" back all
24 the way to what?

25 A. 1911.

26 Q. All right. Moving on to 399.

1 A. I have it.

2 Q. What is Exhibit 399?

3 A. This is a close-up picture of the right phase of
4 the 35/281 insulator string and the hook. Or actually
5 just the hook and a portion of the first bell.

6 Q. And what is the significance of photograph 399?

7 A. It shows more clearly and with better detail the
8 channeling and wear pattern in the hook.

9 Q. Moving on to Exhibit Number 400.

10 A. I have it.

11 Q. What does 400 show?

12 A. This is a similar picture with a scale -- a
13 forensic scale in front of it showing the depth of wear.

14 Q. And 401?

15 A. This is a similar photo but at a different angle
16 as 400.

17 Q. And 402?

18 A. This is a similar photograph as before with a
19 different angle.

20 Q. And 403?

21 A. I have it.

22 Q. What is 403?

23 A. This would be the right phase hook.

24 Q. And how can you tell that?

25 A. Oh, I'm sorry. Let me refer to the previous
26 photograph. Let me make sure it's the right phase.

1 Sorry. It would be the left phase. Left phase hook.

2 Q. Okay. How can you tell that?

3 A. The position that it's in and where it was on
4 the pallet.

5 Q. Something else significant?

6 A. Oh, the wear. Sorry. I misunderstood the
7 question. Yeah. It has a significant wear pattern as
8 well.

9 Q. First in terms of which one it is, which hook it
10 is determining whether it's the right or left phase.

11 A. Oh, it's got the "B" visible on it. The raised
12 "B."

13 Q. Right. Got the raised "B" on there. All right.
14 Now, what is significant about the photograph 403?

15 A. The channeling and wear pattern.

16 Q. Why is it significant?

17 A. Probably 25 percent of the hook's structure
18 integrity is gone.

19 Q. And 404. Identify what is 404 for us.

20 A. Exhibit 404 is a similar photograph at a
21 different angle.

22 Q. Again the circle "B."

23 A. The raised "B."

24 Q. The raised "B." I mean circle "B." I'm getting
25 confused.

26 A. Yeah. Raised "B."

1 Q. This is the raised "B."

2 MR. NOEL: It is now six minutes to 12:00. From
3 here we're going to jump into some other stuff. So this
4 would probably be a very good time to break. The next is
5 going to be a significant chunk. We could probably stop
6 here and come back and start up this afternoon and go
7 straight through with the rest.

8 GRAND JURY FOREPERSON: Okay. So, Captain
9 Kluge, I need to admonish you before we go to --

10 THE WITNESS: Yes, Ma'am.

11 GRAND JURY FOREPERSON: Before we take the
12 break.

13 So, Captain Kluge, you are admonished not to
14 discuss or disclose at any time outside of this jury room
15 the questions that have been asked of you or your answers
16 until authorized by this grand jury or the Court. A
17 violation of these instructions on your part may be the
18 basis for a charge against you of contempt of court.
19 This does not preclude you from discussing your legal
20 rights with your own attorney.

21 Captain Kluge, what I have just said is a
22 warning not to discuss this case with anyone except the
23 Court, your lawyer, or the district attorney.

24 Understand?

25 THE WITNESS: I do understand.

26 GRAND JURY FOREPERSON: Okay. Thank you.

1 THE WITNESS: Thank you.

2 MR. NOEL: Recess for lunch?

3 GRAND JURY FOREPERSON: Recess for lunch.

4 MR. NOEL: Be back at 1:30?

5 GRAND JURY FOREPERSON: Okay.

6 [Whereupon the luncheon recess is
7 taken from 11:55 a.m. until 1:30 p.m.]

8 --oOo--

1 JULY 30, 2019

2 AFTERNOON SESSION

3 (Confidential Grand Jury Hearing Proceedings)

4
5 (ROLLCALL OMITTED.)

6
7 MR. NOEL: Anything we need to deal with before
8 we bring Captain Kluge back in?

9 GRAND JURY FOREPERSON: No.

10 MR. NOEL: Sergeant-at-arms, thank you.

11 [Captain Kluge enters the courtroom.]

12 GRAND JURY FOREPERSON: He can just have a seat,
13 can't he?

14 MR. NOEL: Yep.

15 THE WITNESS: Thank you.

16 MR. NOEL: Still under oath.

17 THE WITNESS: Yes. Thank you.

18 **EXAMINATION CONTINUED**

19 BY MR. NOEL:

20 Q. Now, when we broke, we were talking about the
21 collection of the transposition hardware from 35/281 from
22 Fire Cause Analysis.

23 A. Yes.

24 Q. Going back to 385 -- Exhibit 385, the map
25 showing the five -- well, the 27/222 and the four
26 exemplar towers.

1 A. Yes.

2 Q. Now, you collected the transposition hardware
3 off 27/222 back in November?

4 A. Correct.

5 Q. And now you've collected 35/281 from PG&E's
6 representative Fire Cause Analysis in March?

7 A. Correct.

8 Q. Were you able to collect the hardware off of
9 20/160, 24/199, and 32/260?

10 A. Yes.

11 Q. How did that occur?

12 A. It was coordinated over a long period of time
13 due to weather constraints, but we were able to, with the
14 help of PG&E because they're the only people available to
15 remove equipment, have that equipment removed with the
16 assistance of a contract helicopter, Cal Fire Nike Moore
17 as well, and the FBI was also there to help document
18 everything.

19 Q. Describe the process that went into the
20 collection of the evidence from the exemplar towers
21 20/160, 24/199, and 32/260.

22 A. Once we'd already had an opportunity to sit down
23 with day collection --

24 Q. Day collection.

25 A. Well, basically we started with identification
26 of what was to be done that day. I made it clear with

1 the PG&E legal representation that -- and confirmed with
2 them that this is still voluntary release of equipment to
3 Cal Fire. Therefore, there was no warrant required.
4 They complied with our request.

5 Once it was identified and a safety briefing was
6 done, the plan was to have PG&E crew members remove the
7 equipment, load it onto a helicopter sling, and have that
8 transported by helicopter to a landing zone location.

9 There's two landing zones that we used out of
10 that way of traffic, places identified for safety
11 reasons. We had -- I was at the landing zones to receive
12 the equipment from PG&E. Nick Moore was at the sites to
13 observe the removal, to make sure that the equipment was
14 not damaged, mistreated, and was removed under specific
15 direction.

16 Nick Moore and I coordinated together on what we
17 wanted to see done as it was removed. Things were
18 photographed as they were being removed again by PG&E
19 employees who are on the tower who could take close-up
20 photographs.

21 As the equipment came in, it was identified,
22 documented, and immediately tagged as evidence by myself
23 and it was documented photographically by the F.B.I. And
24 they cataloged everything for us. That equipment was
25 then loaded --

26 And just to be clear, on the equipment that we

1 removed on each of the other three towers from 20/160,
2 24/199, and 32/260, we removed the conductor, the
3 conductor stiffener rod, the corona plates, the insulator
4 strings both right phase and left phase, and the dead-end
5 insulators, the supporting C-hook hardware, the ST-20
6 brackets if so equipped, and the support arms for those
7 insulator strings.

8 All that equipment was loaded into the back of
9 the Cal Fire state side and secured by me. I had custody
10 of it until it was placed into our large evidence storage
11 locker and then everything was cataloged and booked.

12 Q. All right. So let's start on March 28, 2019,
13 with tower number 20/160. Were the parts that you
14 requested removed from the tower by PG&E?

15 A. Yes, they were.

16 Q. And you were there to supervise and take custody
17 of those parts?

18 A. I was. And if I may add, this particular tower
19 we did not need a landing zone. We were able to drive
20 right to it, collect the evidence, and put it directly
21 into a vehicle.

22 Q. And you supervised the collection and
23 documentation of that evidence?

24 A. I did.

25 Q. All right. So let's go to Exhibit Number 405.

26 A. Excuse me. I have it.

1 Q. And what is Exhibit Number 405?

2 A. This is an insulator string. I'd to refer to
3 the photo log, but I do believe -- yeah, this is from
4 20/160. And it appears to be the right phase by the
5 markings on the bells.

6 Q. What is the photograph log?

7 A. A photo log is a document that catalogs and
8 identifies what photos represent. It's a table of
9 contents for the photographs.

10 Q. Okay. Do you have the photo log with you today?

11 A. I do not. I do not. I don't think it's in this
12 stack of exhibits. But if I may stand up, I could
13 probably take a look at it from the example.

14 Q. Go ahead.

15 A. Okay. It doesn't say specifically on those, but
16 I know the layout and I know the location and I remember
17 standing next to it. And the only one that we could
18 possibly be standing next to when it came to the ground
19 was 20/160. So I do know this is from the right phase of
20 20/160.

21 Q. How do you know it's the right phase?

22 A. It's marked on the bells that you can clearly
23 see in the photograph.

24 Q. You're talking about the "R" with the -- what is
25 the name of the --

26 A. Phi or phi depending on your pronunciation.

1 Q. The "R" phi symbol on each of the bells?
2 A. Correct.
3 Q. Moving on to 406, I think.
4 A. Yes. I have it.
5 Q. The computer doesn't want to cooperate. There
6 we go. Exhibit 406.
7 A. Okay.
8 Q. Do you have Exhibit 406?
9 A. I do.
10 Q. What does Exhibit 406 depict?
11 A. This is the left phase insulator string from
12 tower 20/160. I should clarify. It's 20 over 160.
13 Q. And Exhibit 407?
14 A. Yes. This is the dead-end hook from the
15 insulator string from tower 20/160.
16 Q. And 408?
17 A. Similarly the right phase hook.
18 Q. And anything significant on that photograph?
19 A. A couple things. This has a channeling wear
20 pattern at the point of contact with the ST-20 --
21 correction, with the hanging point on the tower. And it
22 also has a raised "B" as well.
23 Q. Exhibit 409.
24 A. I have it.
25 Q. What is Exhibit 409?
26 A. Similarly the right phase hook from 20/160.

1 Q. And the significance?

2 A. It has a channeling wear pattern at the point of
3 contact and a raised "B."

4 Q. Exhibit 410?

5 A. I have 410.

6 Q. What does 410 depict?

7 A. Exhibit 410 is the right phase hook again with a
8 different angle being supported by one of the FBI staff
9 who was photographing.

10 Q. Exhibit 411?

11 A. Exhibit 411 is another photograph of the left
12 phase hook with a scale.

13 Q. And the significance?

14 A. Again, it shows the wear pattern. I might add
15 that there's -- I haven't mentioned this before in the
16 other photographs but, as I'm looking at this, it stands
17 out to me again that the point where it's being worn and
18 channelled is not oxidized. It tells me it's a fresh
19 wear pattern.

20 Q. Anything else significant about this hook?

21 A. If I haven't mentioned it before, it does have
22 the raised "B."

23 Q. Exhibit 412?

24 A. This is another photograph of the left phase. I
25 believe it's similar but flips so you can see the other
26 side of it.

1 Q. Four thirteen.

2 A. Again, this is a left phase hook from 20/160.

3 Different angle being supported by an FBI agent.

4 Q. Four fourteen?

5 A. Similarly the same hook from left phase slightly
6 different angle.

7 Q. Now, you talked earlier about the lack of
8 oxidation.

9 A. Yes.

10 Q. This is a good photograph to explain what you
11 mean.

12 A. Comparatively the bulk of the C-hook is covered
13 with an oxidation and it's also -- knowing from the
14 as-built, it's also zinc-coded or hot zinc dipped to
15 galvanize it. At the point of contacting you can see
16 that there is no oxidation. It's not dull in color.
17 It's not missing -- or it's not covered with the zinc
18 coding. It's been all removed through the wear process.

19 Q. So oxidation -- are you talking about this
20 (indicating) discoloration on these other parts of the
21 hook?

22 A. Yes. That would have to be confirmed through
23 metallurgy, but that is what I believe it to be, yes.

24 Q. And the point of contact you're talking about
25 this channel right here (indicating)?

26 A. Yes.

1 Q. And the lack of oxidation is shown by what in
2 the channel?

3 A. The reflection of the light. Its reflective
4 surface has been polished over wear through time.

5 Q. So it's not discolored like everything else?
6 It's shiny and metallic?

7 A. Correct.

8 GRAND JUROR NUMBER SEVENTEEN: I want to
9 interject for a second. We don't have Exhibit 413 and
10 beyond. It stopped printing.

11 GRAND JUROR NUMBER FIFTEEN: It says "Error.
12 Image stop."

13 GRAND JUROR NUMBER SEVENTEEN: So we do not have
14 that. Just letting you know.

15 MR. NOEL: I'm sorry.

16 GRAND JUROR NUMBER SEVENTEEN: No worries.

17 MR. NOEL: Okay. Well, we'll just keep going
18 then.

19 GRAND JUROR NUMBER EIGHTEEN: Fix it later.

20 BY MR. NOEL:

21 Q. All right. Let's go on to 415.

22 A. I have 415.

23 Q. And what does 415 depict?

24 A. This is a support arm from tower 20/161.
25 Correction. 160. And this is the right phase with a
26 scale.

1 Q. What is significant about this?

2 A. This picture depicts the wear pattern on the
3 support arm that is consistent with the hook being sat in
4 that hole and rubbed away over a period of time.

5 Q. And what is the disfiguration or . . .

6 A. So we know from -- I'm sorry. I didn't mean to
7 interrupt.

8 Q. No. I just lost track of what word I was going
9 to use for the -- we've been it calling the keyholing.

10 A. Yes. So keyhole was used in several as-builts.
11 So the keyhole, we know, should have been an inch and
12 1/8th from the as-builts and the schematic specifications
13 we had. It's supposed to be machine round. And this one
14 has been worn to a -- I hate to use the term pear shape,
15 but it doesn't really fit this entirely perfectly. But
16 it has been worn to one side clearly.

17 Q. So what you're talking about is this hole right
18 here (indicating) according to your review of the PG&E
19 documents should be round and 1 1/8th inch in diameter?

20 A. Yeah, that is correct.

21 Q. So across at any point should be 1 1/8th inch?

22 A. Correct.

23 Q. And the wear that you're referring to, is this
24 stuff that's at the top of the picture as it sits?

25 A. Yes, as depicted. Yes, it's at the top of the
26 picture.

1 Q. And we should probably point out --

2 A. This photograph is upside down in what should
3 have been its native position.

4 Q. Right. So that wear point would actually be on
5 the bottom as it would hang in the tower?

6 A. Correct.

7 Q. All right. Let's move on to 416.

8 A. I have 416.

9 Q. What is 416?

10 A. Four sixteen similarly is the left phase of
11 tower 20/160.

12 Q. And what do you see of significance in this
13 photograph?

14 A. Similar wear. Also I could point out that this
15 particular arm did not have an ST bracket -- ST-20
16 bracket attached nor were there holes drilled for it.
17 That's part of the manufacturing. It wasn't originally
18 intended on this particular tower to be there.

19 Q. So based upon your review of the historical
20 documents from PG&E, this would have been the
21 configuration of the original tower arm?

22 A. Minus the wear that is existing in the keyhole,
23 yes.

24 Q. Right. And this hole, according to the PG&E
25 documents, was supposed to be 1 1/8th inch in diameter?

26 A. Similarly, yes. This should be 1 1/8th

1 hand-machined with a drill bit.

2 Q. All right. So let's move on to March 29th.

3 A. Okay.

4 Q. And what did you do on March 29th?

5 A. On March 29th is where we met at the first LZ,
6 landing zone -- excuse me -- where we met with PG&E to
7 remove the exemplar equipment from 24/199 tower of the
8 Caribou-Palermo line.

9 Q. Explain for us the process of collecting the
10 evidence at 24/199.

11 A. It was a pretty big undertaking to make happen.
12 Very difficult to access. We had to make several trips
13 out there beforehand to examine the equipment that we
14 wanted to pull. Again, delays with weather but we were
15 able to finally come up with a day and time that worked.

16 Initially, we had our agents that were helping
17 us from the FBI went up and photographed the tower as it
18 stood in its original configuration as built. And then
19 we had them -- once they came back, we were able to bring
20 Nick Moore up to the tower where he could observe any
21 removal process that occurred. Then PG&E took the
22 helicopter up and started removing equipment using their
23 linemen and tower men.

24 Q. Now, when you say the FBI personnel
25 photographers were taken up to the tower and then Nick
26 Moore was taken up to the tower, describe how they were

1 taken up to the tower.

2 A. They were taken up through the Butte County
3 Sheriff helicopter, not the PG&E contracted helicopter.

4 Q. Now, prior to March 29th had you visited 24/199
5 physically?

6 A. Yes.

7 Q. On how many occasions?

8 A. At minimum two, possibly three. I'd have to
9 check my records but definitely at least twice.

10 Q. Why was 24/199 picked for the Exemplar Tower
11 Project?

12 A. Number one, it was a transposition line,
13 transposition tower within the vicinity of our original
14 failure or the original tower failure I should say. And
15 it had similar equipment. It was in a similar type
16 terrain in a similar position on a hill with similar
17 canyons around it. A lot was similar with it. Probably
18 out of all the towers this was probably the most similar
19 in its location with environmental factors in
20 consideration.

21 Q. When you visited the tower, were you able to
22 look at the tower?

23 A. Very easily.

24 Q. Even more easily than other towers?

25 A. I wouldn't say more easily due to the access. I
26 can say that tower 20/160 had an easier access to get to

1 and was similarly close to a road. However, 24/199 was
2 probably one of the shorter towers where you could see
3 the equipment most easily from ground level.

4 Q. Did you notice anything about the equipment on
5 24/199 that caught your attention?

6 A. Several things caught my attention.

7 Q. Please explain.

8 A. First, I -- when we first arrived at the landing
9 where the tower meets the road, it literally comes right
10 up to the tower. It's real easy access aside from
11 weather and the road being washed out. You can see that
12 the left phase insulator string is different from all the
13 other insulator strings on all the other towers.

14 Before lunch I spoke of how I could tell the
15 manufacturing date of the insulator strings by the shape
16 of the bells. I noticed the bells had a different shape
17 to them. I had not seen them on the Caribou-Palermo line
18 or in all the towers I had looked at previously.

19 I also observed that there was a splice in the
20 conductor -- the transposition conductor line that we
21 talked about before that -- the one that goes from one
22 side to the other. So that would be the transposition
23 line going from the left to the right phase. There's a
24 splice there like a three-bolt or four-bolt connection
25 that tied those two pieces of wire conductor together.

26 I also observed the fact that it appeared that

1 the conductor was actually supporting the insulator
2 string. In other words, if you can imagine -- and I wish
3 we had a good picture here. But the way the conductor
4 was shortened due to splice, it was actually supporting
5 the base of the insulator string.

6 That was evident in the curve of the insulator
7 string. Where every other insulator string is taut,
8 pulled straight, this had a curve to it. And so, of
9 course, that got me curious and I started looking around.
10 And I was able to find a similar-type insulator string
11 with all three -- all ten bells -- eleven bells -- excuse
12 me. Eleven bells attached on the ground close but had
13 everything intact minus a few broken pieces of ceramic,
14 but it was missing the C-hook.

15 From the ground I was also able to notice that
16 the C-hooks that were in place were severely worn. That
17 was evidenced by the amount of sunlight I could see in
18 that keyhole. Just from the ground looking up you could
19 clearly see that there was a significant amount of wear.

20 At that point, I already knew that the apex of
21 the C-hooks specifically with the raised "B" casting is
22 supposed to be 15/16th in height.

23 Q. How do you know that?

24 A. That's from the as-builds. Again, the
25 specification page that we received from PG&E.

26 Q. Go ahead.

1 A. We know that to be 15/16th of an inch. Dually I
2 know that the keyhole is supposed to be 1 1/8 of an inch.
3 Estimated from the ground I believe that I saw somewhere
4 in the neighborhood of three quarters of an inch or 7/8th
5 of an inch of exposed keyhole that wasn't filled with a
6 hook where with those numbers we should have
7 approximately 3/16th of an inch only of sunlight exposed.
8 So that told me there was some significant wear there.

9 Q. How so?

10 A. Can you repeat the question.

11 Q. How so? Why does the amount of sunlight you
12 could see through those holes tell you that there was
13 significant wear?

14 A. There should have only been 3/16th of space
15 between the top apex of that hook and the top apex of the
16 keyhole. And there was almost three-quarters of an inch.
17 Again, that was estimated from the ground. I wasn't able
18 to take a scale to it.

19 Q. All right. So let's get into the evidence
20 recovered from 24/199.

21 A. Okay.

22 Q. Exhibit 417.

23 A. I have that in front of me.

24 Q. What does 417 depict?

25 A. This is an insulator string being delivered to
26 the landing zone off of Highway 70. And it's an

1 insulator string that is hanging from a helicopter
2 grapple.

3 Q. So somewhere up above outside the frame of this
4 picture there is a helicopter; is that correct?

5 A. Yes, there is.

6 Q. And somebody waiting to accept that --

7 A. Yes.

8 Q. -- insulator string?

9 A. Yes. Those are PG&E employees.

10 Q. So explain to us a little bit about how it
11 worked on the landing zone for taking custody of and
12 documenting this evidence.

13 A. PG&E received all the information -- or all the
14 equipment at the landing zone. These employees had been
15 working with the contract helicopter. They understood
16 how to speak to each other using hand signals. For
17 safety reasons we had them be the ones to receive the
18 equipment from the helicopter.

19 Yes, I am trained to speak the same language
20 with ground hand signals, but that's within the
21 government sector. Private sector is different. And for
22 safety reasons we -- just to make sure everybody went
23 home at the end of the day we kept them on the ground.

24 Once they received the equipment, they merely
25 turned it over to me. And at that point, I maintained
26 custody of it.

1 Q. So were you able to supervise the equipment from
2 the point that it reached the ground?

3 A. Yes. And we also had radio communication with
4 the -- with Nick Moore at the tower and also PG&E
5 employees had communication with each other as well the
6 whole time. So we were able to maintain not only custody
7 by radio but by visual contact.

8 As equipment was removed, Nick Moore told me
9 what was coming off and he told me that it was on its
10 way. And he was able to maintain visual contact with the
11 item until I saw it. And then I told him over the radio
12 that I can now see it. And that way we maintained visual
13 custody the whole time between the two of us.

14 Q. All right. Moving on to 418, do you have 418?

15 A. I do.

16 Q. And what is 418?

17 A. This is an insulator string from 24/199.

18 Q. Can you tell from this photograph which
19 insulator string it is?

20 A. From this photograph, no, I cannot. I don't
21 believe this has been marked yet.

22 Q. So once the insulator strings were disconnected
23 from the helicopter line and turned over to you, what
24 happened to them?

25 A. They are carried over to a shady gazebo area.
26 At the -- this is a day-use area right along the Feather

1 River usually used by travelers to kind of take a rest
2 stop, but we were able to use it for the day. We
3 reserved it and placed everything underneath the shade.

4 It's better for picture quality to be able to
5 control the light. Everything was set on cardboard and
6 measured, cataloged, and photographed under the gazebo.

7 Q. All right. Moving on to 419, what does
8 Exhibit 419 show?

9 A. I have 419. This is the -- this is the top
10 portion of the dead-end insulator string which includes
11 the hook. The C-hook.

12 Q. And how can you tell that?

13 A. Excuse me. It's marked.

14 Q. And explain to us what those markings mean.

15 A. These markings -- so the 26/199 depicts which
16 tower it was taken from. The "DE" referred to the
17 dead-end. That's referred to as the third insulator
18 string off to the -- usually the left side of the tower.
19 And then if you look at the bells, they are each marked
20 one, two, three, four and so on individually.

21 Q. I think you said 26/199.

22 A. Oh, excuse me. It should have been 24/199.

23 Q. Okay. All right. Let's move on to 420.

24 A. I have it.

25 Q. Do you recognize 420?

26 A. I do.

1 Q. And what is 420?

2 A. Exhibit 420 is one of the insulator strings from
3 24/199 with a hook.

4 Q. And 421?

5 A. Yeah, 421 is a -- this is the right phase
6 insulator string from 24/199.

7 Q. How can you tell it's the right phase?

8 A. There are markings on the cardboard identifying
9 what it is. That was the first marking we did before we
10 actual marked -- we marked the cardboard before we marked
11 the insulator string. That way we could photograph it in
12 its native condition.

13 Q. And on to 422.

14 A. I have 422.

15 Q. What is depicted in 422?

16 A. This is the right phase top of the insulator
17 string. This is the hook that shows significant
18 channeling and deformation of the hook.

19 Q. What makes you think that is significant
20 channeling?

21 A. I believe this hook is already in failure based
22 on all the other C-hooks I was able to observe throughout
23 this entire investigation including looking at the
24 as-builds and the specification drawings. The apex of
25 this particular hook has actually been distorted by the
26 weight of the hook.

1 If I may stand up.

2 Q. Yes, please.

3 A. Having looked at a lot of these hooks, I know
4 right here (indicating) there's a flat spot where it's
5 actually started to open up under the weight. And I have
6 not seen that flat portion at the apex on any other hook.
7 Plus, it's --

8 I know it's kind of hard to see here in this
9 photograph. I'm sorry you don't have a photograph in
10 front of you. But this is almost completely worn
11 through. There is less than a quarter inch of material
12 left here.

13 Q. Now, going back to 27/222, we saw the
14 photographs earlier and what we referred to back in April
15 to the -- the cuticle or the nail, the little portion
16 that was left, the nub sticking out. Remind us
17 approximately how wide that was.

18 A. Well, if I may refer to the exhibit.

19 Q. Go ahead.

20 A. Bear with me a moment. I have a few exhibits
21 today.

22 So I'm referring to Exhibit 392 and Exhibit 393.
23 So using the scale provided in the photograph there is
24 what appears to be just over one millimeter of material
25 left. The side profile that is visible in Exhibit 393
26 you can see where the -- similarly, I believe that the

1 hook that failed in 27/222 also began to open up and
2 cause there to be a curvature of the phase as visible
3 in 392.

4 As it began to open up, the wear pattern
5 changed. It went from being a perfect straight channel--
6 let me rephrase it. Not a perfectly straight channel but
7 from being a mostly straight channel to actually tapering
8 and changing its geometry a little bit as it opened up.

9 So I think the hook depicted in Exhibit 422
10 shows that process beginning. And I believe that hook in
11 Exhibit 422 is in the similar type of failure as 27/222.

12 Q. All right. Let's move on to 423.

13 Do you have that photograph there in front of
14 you?

15 A. Let me straighten this out real quick. Four
16 twenty-three. Yes, I have it in front of me.

17 Q. What is 423?

18 A. I'm sorry. What was that?

19 Q. What is 423?

20 A. Oh, 423 is a photograph of the first dead-end
21 bell and the hook that is attached to it that was used as
22 a support for the dead-end string with scale.

23 Q. And 424?

24 A. Exhibit 424. This is the failing hook from the
25 right phase and the first bell insulation -- or first
26 bell from the insulator string with a scale.

1 Q. Now, I want to direct your attention to the
2 first bell.

3 A. Okay.

4 Q. And you talked earlier about some of the
5 insulator strings appearing different.

6 A. Yes.

7 Q. And is this one of those?

8 A. Yes. This is the first bell of the insulator
9 string that I mentioned was significantly different in
10 shape and design from all the others that I had seen on
11 the Caribou-Palermo line. The markers are different as
12 well.

13 Q. Right. Fifteen thousand lb.

14 A. Yes.

15 Q. Do you know what that refers to?

16 A. I didn't find any specific documentation that
17 identified it, but to me it tells me this would be rated
18 at 15,000 pounds. So we did find documentation that
19 talked about what a bell is supposed to be rated at.
20 This one is made after some of the other documentation we
21 had. This one actually has a higher rating than some of
22 the insulator bells we'd seen on the rest of the
23 Caribou-Palermo line. The other bells that we saw were
24 only rated at 12,000 pounds. So I assume that this is
25 the newer version at the higher rating.

26 Q. Now, right here in the middle can you tell us

1 what that is.

2 A. Yeah. That is the circle "B" marking from the
3 Ohio Brass Company. That was circa 1932ish.

4 Q. All right. Moving on to 425, do you have that
5 one in front of you?

6 A. I do.

7 Q. And what does 425 depict?

8 A. Similarly to 424 this is the other side of it,
9 the backside we did not see in the other photograph with
10 a scale.

11 Q. All right. Now, on the hook itself were you
12 able to find any markings?

13 A. Let me refer back to the other photograph. This
14 one in particular I don't see them here and I do not
15 recall seeing any on it the day that we collected it.

16 Q. All right. Four twenty-six.

17 A. I have that.

18 Q. What does 426 depict?

19 A. Four twenty-is six similar to 425. The same
20 view of it but a different angle with a scale.

21 Q. Four twenty-seven.

22 A. I have 427.

23 Q. What is 427?

24 A. This is the right phase support arm. This would
25 be the arm that was supporting that severely damaged hook
26 for the right phase insulator string.

1 Q. How can you tell this is the right phase?

2 A. It's marked. And I put those marks myself.

3 Q. Describe for us what you mean by marked.

4 A. I put -- I started marking in paint the right
5 phase or R phi and also marked it with a black Sharpie R
6 phi and 24/199. It's upside down in this particular
7 picture.

8 Q. And what does -- in your view is there anything
9 in this photograph?

10 A. A couple things. The -- the wear pattern is
11 similar to other wear patterns we have seen. Again, the
12 keyhole is bigger than it's supposed to be. It's worn
13 differently. This particular arm does have the ST-20
14 bracket attached.

15 And there's actually metal transfer evidence on
16 this particular bracket. The ST bracket has the severe
17 black discoloration. I believe it to be metal transfer
18 having talked to a metallurgist.

19 MR. NOEL: Remember, hearsay doesn't go for the
20 matter. Don't consider it.

21 THE WITNESS: Oh, yeah.

22 BY MR. NOEL:

23 Q. All right. Let's move on to 428.

24 A. So this is the same right phase support arm.
25 This is the opposite side from Exhibit 427. And this is
26 the -- this is the actual angle iron from the arm itself,

1 not the ST-20 bracket.

2 Q. Four twenty-nine.

3 A. Similar photograph with a paper behind it to add
4 contrast.

5 Q. Four thirty.

6 A. Four thirty. This would be the -- this is the
7 left phase. I know it's not marked, but I know where
8 this is from. Because of the grass and everything behind
9 it I know this is from 24/199. And the position of the
10 ST bracket in relationship to the geometry of the angle
11 iron from the support arm tells me this is the left phase
12 support arm.

13 Q. And what do you believe is significant in this
14 photograph?

15 A. This is probably the most worn support arm that
16 we had in our entire exemplar project. And it shows the
17 most amount of wear.

18 I don't know if we have a scale with this
19 particular photograph or another photograph with a scale,
20 but this is almost clear worn through on the actual -- on
21 the original hole.

22 Q. You're talking about this (indicating) hole up
23 here on the arm itself?

24 A. Yes.

25 Q. And the amount of wear on that hole?

26 A. Yes. It's almost completely through in respect

1 to its original design.

2 Q. Let's move on to 431.

3 A. I have that.

4 Q. What is 431?

5 A. Exhibit 431 is the -- again the left phase
6 support arm from 24/199 with a scale to it. With a scale
7 I'm able to estimate from this photograph that it's
8 somewhere between three to four millimeters of material
9 left at the apex of the wear.

10 Q. So again, this isn't the hole that the hook was
11 attached to at the time of the removal; correct?

12 A. No, it's not. And I can tell that by the
13 oxidation on the deformed metal.

14 Q. Right. This is one of the brackets as you can
15 see from the previous photograph 430 that was equipped
16 with the ST-20 bracket?

17 A. Correct.

18 Q. Just so we're clear, the insulator at the time
19 of the removal was hanging from the ST bracket?

20 A. Yes.

21 Q. Got it. So let's go on to 432.

22 A. This is a similar photograph, this one with a
23 piece of paper behind it to show contrast.

24 Q. Four thirty-three.

25 A. I have 433. And this is a very similar
26 photograph, a different zoom.

1 Q. All right. Four thirty-four?
2 A. I have 434.
3 Q. And what does 434 depict?
4 A. Four thirty-four is the dead-end hook from --
5 that supported the dead-end insulator string from 24/199.
6 Q. Anything significant?
7 A. Comparatively speaking, this one has less wear
8 though there is a significant amount of wear compared to
9 the other dead-end hooks that we saw.
10 Q. Four thirty-five. What is 435?
11 A. Four thirty-five. I have that. It's a 24/199
12 left phase hook.
13 Q. And what, if anything, do you believe is
14 significant about this photograph?
15 A. This hook is different from many of the hooks
16 we've seen so far. The shape of it is different. The
17 geometry doesn't match the other hooks that we've
18 collected. I believe this to be a newer hook than a
19 raised "B" or even a circle "B" hook.
20 Q. Were you able to locate any markings on it?
21 A. There are markings on it. There was not a -- I
22 would have to -- I'd have to look at the piece of
23 evidence itself, but I do not recall there being a
24 casting stamp on this one.
25 Q. For instance, the raised "B" or --
26 A. Raised "B," circle "B," star "B." Any of those.

1 Q. Right. And this hook was, you said, physically
2 different from the others?

3 A. It's geometry was different, yes.

4 Q. And 436?

5 A. I have that.

6 Q. What does 436 depict?

7 A. Again, this is the left phase hook. Similarly,
8 I think a different zoom. Yeah, a little bit different
9 zoom.

10 Q. And do you see any wear patterns on this hook?

11 A. I do.

12 Q. Where?

13 A. This is at the point of contact. I see
14 channeling, a wear pattern at the point of contact.

15 Q. We're talking right here (indicating)?

16 A. Yes.

17 Q. The apex of the hook?

18 A. At the apex of the hook, yes.

19 Q. Four thirty-seven.

20 A. Yeah, this is the right phase hook from 24/199
21 by itself.

22 Q. And 438.

23 A. Again, this is the 24/199 right phase hook with
24 a different angle on the light source.

25 Q. You can really see the channeling on this one.

26 A. Yes.

1 Q. All right. So that's it for 24/199. That
2 leaves us with 32/260.

3 A. Yes.

4 Q. But before I get to that, when you physically
5 went up to inspect these poles, these towers prior to the
6 removal of the evidence from the towers, did you also
7 look at towers around them?

8 A. I did.

9 Q. And specifically, I want to talk about 221.
10 Remember 221?

11 A. Yes.

12 Q. And --

13 A. Just confirming, the Caribou-Palermo 27/221?

14 Q. Two twenty-one, yes. When you first saw 221,
15 did you notice anything unusual about it?

16 A. Yes.

17 Q. What was that?

18 A. The -- a couple things. The build was different
19 from 27/222. This was a type of tower that was used to
20 support the wire mid span. In other words, there wasn't
21 any cut in the wire. They just drilled it, clamped it in
22 the middle of the conductor and held aloft. It was held
23 aloft with an insulator string and bolted equipment and
24 it was also stabilized -- supposed to be stabilized
25 underneath with another insulator string.

26 I noticed right away that on the lower insulator

1 string on the left phase of 27/221 the guidewire had
2 disconnected -- like a stabilizing cable had disconnected
3 at the turnbuckle.

4 Q. During one of your return trips to look at
5 27/222, did you notice anything different about 221?

6 A. We made many return trips. And there was times
7 where there's evidence in place and there's times we took
8 exemplar evidence off. So some stuff had changed
9 throughout the course of our investigation. So, yes.

10 Q. At some point when you returned, did you notice
11 that the insulator strings had been changed on 221?

12 A. Yes, they had.

13 Q. And the guidewire for the insulator string had
14 been broken off and been replaced and fixed?

15 A. Yes, it had.

16 Q. Now, were you able to look at those insulator
17 strings from the ground?

18 A. I was able to, yes.

19 Q. And specifically, were you able to look at the
20 hooks from the ground?

21 A. The new insulator strings did not have hooks.

22 Q. On 221?

23 A. On 221. It is a different type of mounting
24 hardware.

25 Q. Okay.

26 A. It is more of a -- we call it clevis. Again,

1 I'd have to -- I've looked at a lot of equipment. I'd
2 have to double check that, but I'm pretty certain it was
3 a clevis, not a hook.

4 Q. Okay. So let's move on to 32/260.

5 A. Okay.

6 Q. Again, March 29th, 2019?

7 A. Yep.

8 Q. And explain to us the setup for the removal of
9 the 32/260?

10 A. This is a similar setup as we did for 24/199.
11 This is at a different landing zone there. This is the
12 landing zone directly behind the Cal Fire Jarbo Gap
13 Station number 36 in Butte County. That landing zone is
14 typically used for firefighting aircraft or for emergency
15 medical ambulances, air ambulances. We reserved it that
16 day on the 29th to use it for a LZ similarly as we did on
17 Highway 70 for 24/199.

18 We had the same briefing, had the same
19 discussion with PG&E lead representatives to make sure
20 this was still voluntary and they were complying with our
21 requests.

22 Q. And describe the process of removal, recovery,
23 and documentation.

24 A. This was a little bit different in that we had
25 the ability to drive small pick-up trucks to the tower
26 location as opposed to flying everybody there. But due

1 to the amount of time and daylight we had left and
2 weather conditions anticipated coming later that day, we
3 weren't able to get our forensic team from the FBI to
4 forensically photograph the tower before it was removed,
5 but we had the LiDAR scans. We were confident that that
6 would give us the information we needed to show us the
7 native position everything was in as it was removed or
8 before it was removed.

9 So the helicopter again kind of the same thing.
10 We had Nick Moore at the tower. He had -- the distance
11 between the LZ and the tower was horizontally probably
12 less than a mile. And so it was a really quick
13 turnaround. So Nick was able to easily say "Okay. This
14 particular piece of equipment is now in the helicopter.
15 It's on its way to you." And within a moment I had
16 visual custody of that piece of equipment.

17 Excuse me.

18 Again, we had the PG&E employees working with
19 the helicopter to remove the equipment from the sling.
20 Once it is safely removed and the helicopter is away, it
21 was handed over to me. And I maintained custody of it
22 from that point forward.

23 Q. All right. Looking at photograph or Exhibit
24 Number 439, what are we looking at here?

25 A. This is the first piece of equipment from, yeah,
26 32/260.

1 Q. So a piece of your equipment being flown into
2 the LZ?

3 A. Correct. This is -- what you can see in the
4 photograph is an insulator string.

5 Q. All right. And Exhibit 440?

6 A. This is -- this is, I believe, the same
7 insulator string coming in, the first piece of equipment
8 and being received by PG&E employees.

9 Q. And 441?

10 A. This is the equipment being removed from the
11 sling by PG&E employees.

12 Q. And 442?

13 A. I have that. That is similarly being removed
14 from the sling by PG&E employees.

15 Q. Now, you described earlier -- you talked about a
16 grappling hook.

17 A. Yes.

18 Q. And in this photograph can you see the grappling
19 hook?

20 A. I can. It's red.

21 Q. Okay. Why don't you show us what the grappling
22 hook is.

23 A. It's this (indicating) portion of the -- sorry.
24 It's this (indicating) portion of the sling right here in
25 red.

26 Q. All right. So let's move on to 443. See that

1 photograph in front of you?

2 A. I do have 443.

3 Q. And what does 443 depict?

4 A. This is the dead-end insulator string with the
5 C-hook attached.

6 Q. How can you tell it's a dead end?

7 A. It's marked on the cardboard that we used for
8 identification.

9 Q. Four forty-four?

10 A. I have it.

11 Q. What is 444?

12 A. This is the left phase insulator string.

13 Q. How can you tell?

14 A. It's marked on the cardboard it's resting on.

15 Q. Four forty-five?

16 A. This is the dead-end first insulator bell from
17 the string and the dead-end first hook or the dead-end
18 hook.

19 Q. And how can you tell that?

20 A. It's marked on the first bell.

21 Q. And you see anything significant in this
22 photograph that you believe to be significant?

23 A. Yes. What's significant is you don't see
24 anything abnormal that we saw on many of the other hooks.
25 This doesn't have a wear pattern.

26 Q. Four forty-six?

1 A. I have 446.

2 Q. And what does 446 depict?

3 A. This is the left phase C-hook and first bell

4 from the insulator string from the left phase of 32/260.

5 Q. How can you tell that?

6 A. It's marked on the first bell.

7 Q. And you see anything that you believe to be

8 significant in this photograph?

9 A. Yes. If this is original equipment, it is -- it

10 does have a wear pattern. It is significant. It's not

11 as significant as some of the other hooks.

12 Q. Anything else that you see that is significant?

13 A. Yes. This has -- I can't see it very well in

14 this photograph, but from my memory I believe this has a

15 circle "B" on it.

16 Q. Let's see if we can blow it up.

17 A. I'm sorry. It's just a raised "B."

18 Q. All right. So it's the same as the 27/222 hook?

19 A. Yes.

20 Q. Four forty-seven.

21 A. I have that.

22 Q. What does 447 depict?

23 A. This is the right phase insulator hook and first

24 bell.

25 Q. How can you tell that?

26 A. It's written on the first bell.

1 Q. Four forty-eight?

2 A. I have that.

3 Q. What does 448 depict?

4 A. This is the -- based on the geometry of the
5 angle iron, this is the left phase support arm with
6 scale.

7 Q. Anything you believe is significant about this
8 photograph?

9 A. Yes. It does have a little bit of wear though
10 not nearly as much as some of the others we have seen and
11 it does not have a ST-20 bracket.

12 Q. Okay. When you're talking about a little bit of
13 wear, you're talking about on the hole right here
14 (indicating); correct?

15 A. Yes. Specifically, again this is upside down
16 from its original as-built position. But this would be
17 the lowest -- in this picture is the top apex, but its
18 native position is the lowest apex position. So where
19 the red discoloration is or brown.

20 Q. So we're looking here at almost 20 millimeters
21 of metal between the edge of the hole and the edge of the
22 steel or iron or whatever that it is; correct?

23 A. Correct based on that scale, yes.

24 Q. As opposed to some of them where we're talking
25 about four to five millimeters?

26 A. Correct.

1 Q. All right. Four forty-nine.

2 A. I have that.

3 Q. And what does 449 depict?

4 A. I believe this is the opposite side of the same
5 left phase support arm.

6 Q. It's a little bit easier to see this one. It
7 looks like the wear pattern is approximately 13 or 14
8 millimeters?

9 A. I would say that is a good approximation.

10 Q. Move on to 450.

11 A. I have 450.

12 Q. What does 450 depict?

13 A. This is the dead-end hook from 32/260 by itself.

14 Q. Anything that you believe is significant about
15 this photograph?

16 A. Yes. It's -- I think it's a good representation
17 of what the original hook shape should be. It has
18 minimal wear comparatively speaking.

19 Q. Four fifty-one.

20 A. I have 451.

21 Q. What does 451 depict?

22 A. This is the left phase hook of 32/260 by itself.

23 Q. And what do you believe is significant about
24 this photograph?

25 A. It has the raised "B" and again the wear pattern
26 that was talked about before.

1 Q. And finally, four fifty-two.

2 A. Yes. This is the right phase hook from 32/260
3 by itself.

4 Q. And anything significant about this photograph?

5 A. Again, the amount of wear is not consistent with
6 the other hooks we've seen in other exemplar towers.

7 Q. Okay. And is there a manufacturer's mark on
8 this (indicating) one?

9 A. There appears to be, yes. They're covered in a
10 lot of paint. It's much easier to see on the screen but,
11 yeah.

12 Q. Let's see. That's not going to focus. We're
13 talking about right here (indicating); correct?

14 A. Yes. I believe that to be a raised "B."

15 Q. All right. Why was 32/260 chosen as part of the
16 exemplar tower project?

17 A. Well, it was a transposition tower with a
18 similar-type build with similar equipment on it. There
19 was something that was different though about it. This
20 was deep in a canyon, much lower elevation from the
21 canyon bottom than all of our other towers.

22 The worst towers were near a hilltop or ridge
23 top with dissecting canyons nearby. This particular
24 canyon or the location of this tower in the canyon was
25 maybe 100 feet above the water; not very high. And at
26 that time the water was flowing pretty well at that

1 point. We went by to look at it.

2 I believe a lot of it has to do with the wind.
3 I'm not a metrologist. I'm not going to pretend to be
4 nor am I, you know, an expert on how the wind affects
5 specifically a transposition tower, but that is a
6 difference in that location is the wind patterns are
7 different.

8 I do know about wind and how it affects my job
9 as a firefighter. I think that that is a factor.

10 Q. So going back and borrowing from some phrases we
11 used back the first time you were here, one of them we
12 learned is protected area. And that's an area that's the
13 backside of something that is protected from the fire.

14 A. Yes.

15 Q. Based upon your experience up there, multiple
16 trips to the different towers, would you say that 32/260
17 was in a protected area from the wind?

18 A. Yes.

19 Q. As opposed to 20/160?

20 A. Yes. So 20/160 was very exposed to the down
21 canyon diagonal winds or the diagonal wind pattern --
22 excuse me -- down in the valley -- I'm sorry. The bottom
23 of the canyon -- excuse me -- was well protected.

24 Other locations we had difficulty standing on
25 windy dates. The day that we collected this evidence was
26 a windy day as evident by the clouds. Those types of

1 clouds are usually associated with wind as you can see in
2 the pictures. And down there at the bottom of the canyon
3 we didn't have any significant wind by Nick Moore. Well,
4 I can't speak for him. But even at the LZ we had quite a
5 bit of wind which was only, you know, maybe a thousand
6 feet of elevation above the tower.

7 Q. We talked back in April about 27/222 being not
8 only at the peak up on top of a ridge line but also being
9 a convergence of the Feather River Canyon and Flea
10 Canyon; correct?

11 A. Correct.

12 Q. Were any of these other towers, the exemplar
13 towers, at similar convergence points?

14 A. Yes. In fact, if I can refer to Exhibit 385.

15 Q. Absolutely. Let me pull it up on the board real
16 quick.

17 A. It's got a great kind of perspective. So up
18 where the numbers 20/160 are, you can see where that's
19 right at a convergence of the canyon.

20 Q. Right here (indicating)?

21 A. Yeah. At the top of the photograph, correct.

22 Q. So the Feather River Canyon coming through here
23 (indicating) down below?

24 A. Yes.

25 Q. And then you're talking about this canyon up
26 above; correct?

1 A. Correct. So that was a canyon convergence. On
2 24/199 if you look opposite of where that tower is at
3 specifically where the crest is, there's a -- on the
4 other side of the canyon there's another spur canyon
5 coming off of there. That's also a convergence. At
6 27/222 obviously you have the giant Flea Valley that's
7 pretty evident right there.

8 Q. Where it comes out and empties at Pulga?

9 A. Correct. At tower 32/260 we do have a bend in
10 the river, but there's no convergence of canyons. But on
11 35/281 what we have there is a spur ridge with a canyon
12 on either side of it. So you're going to have a
13 convergence there as well.

14 Q. So the exemplar towers were not only picked
15 because they were the same type of towers as 27/222 but
16 also because they're similar or opposite conditions?

17 A. Correct.

18 Q. Compare and contrast?

19 A. And I do believe this -- between 20/160 and
20 35/281 I believe that we collected evidence from every
21 transposition tower that was between those two points.

22 MR. NOEL: Okay. I think that's all I have.

23 Do the jurors have any questions? All right.
24 We have a couple of questions from the jurors.

25 BY MR. NOEL:

26 Q. To your knowledge, has any investigation into

1 the fire that started up near Flea Mountain the same
2 morning as the Camp Fire been investigated?

3 A. Could you repeat the question one more time.

4 Q. To your knowledge, has there -- I will rephrase.

5 To your knowledge, has there been any
6 investigation into a fire that started up near Flea
7 Mountain on November 8, 2018?

8 A. We didn't have a report of a fire specifically
9 near Flea Mountain. We did have another report of a fire
10 at the intersection of Rim Road and Concow Road. And
11 that one was investigated by Cal Fire.

12 Q. And Flea Mountain is actually where the fire
13 camps are, isn't it?

14 A. Correct.

15 Q. In your opinion and your examination of the
16 failed equipment as well as the items that served as
17 exemplars, is there significant enough damage to these
18 exemplars to cause concern about these items still in
19 service being subject to failure?

20 And this simply is your opinion.

21 A. So it would be conjecture because of my opinion
22 but --

23 Q. So that means it's not evidence?

24 A. Yeah. So this is -- just from my observations I
25 will tell you what I understand is that we took equipment
26 from five towers. Four out of five had equipment that

1 was failing. There's a lot of equipment out there. I
2 don't know the status of the other lines. I don't know
3 the status of the towers having not inspected them
4 myself. But just based off the numbers and probability
5 alone, I would say there's probably more equipment out
6 there that is in the process of failing, yes.

7 Q. Do you at any time feel PG&E was withholding any
8 evidence from you?

9 A. I feel that PG&E has been cooperative very
10 specifically to what we're asking them to do. They're
11 not providing anything above and beyond what we've asked
12 for. But they have made it so that we haven't had to go
13 through extraneous court processes to get equipment and
14 material and information from them. So they have been
15 being forthright but not always timely with their
16 responses.

17 Q. Well, as part of your investigation did you keep
18 track of PG&E's public pronouncements with regard to the
19 Camp Fire and the Caribou-Palermo line?

20 A. Yes.

21 Q. Now, back in December did PG&E make an
22 announcement about the status of the Caribou-Palermo
23 line?

24 A. They did.

25 Q. What was that?

26 A. That the -- there was a --

1 I assume you're referring to the Study 9.

2 Q. Well, we're not going to talk about that.

3 A. Okay.

4 Q. But just to put it frankly, did PG&E announce
5 that they were -- the line was de-energized and they were
6 trying to figure out what to do with the line?

7 A. Yes. They told us that they had identified that
8 there were issues -- publicly identified there was issues
9 and they had not made a determination whether or not it
10 would ever be re-energized again.

11 Q. Subsequently PG&E has announced that the
12 Caribou-Palermo is being decommissioned?

13 A. I've heard that on the news and read it in the
14 news, yes.

15 Q. So on January 31 35/281 still had its original
16 transposition hardware on it; correct?

17 A. I'm sorry. What date?

18 Q. January 31st.

19 A. Yes.

20 Q. What was the weather like in late January and
21 early February?

22 A. Very wet, stormy. Everything was soggy. The
23 ground was unstable. We had difficult accessing even --
24 you know, roads that were normally accessible were
25 inaccessible.

26 Q. Now, you said you went up to do the LiDAR prior

1 to the removal of evidence --

2 A. Correct.

3 Q. -- in early February; correct?

4 A. Correct.

5 Q. How did weather play a factor into when you
6 actually were able to do that?

7 A. It prevented us from doing anything. What few
8 windows we may have had were either unexpected windows in
9 the weather or equipment and personnel were not
10 available. So it really pushed us back a number of
11 months that we wanted to get more work done sooner than
12 later.

13 Q. But yet when you arrived at 35/281, all of the
14 transposition hardware had been replaced?

15 A. It had been, yes.

16 Q. On a de-energized line?

17 A. On a de-energized line to my knowledge, yeah.

18 Q. Exhibits 410 and 411 show a raised letter "B" on
19 the C-hook.

20 A. Let me refer to those real fast for you before
21 you ask the question.

22 Q. Yep.

23 A. Referring to 410 and 411?

24 Q. Yes, 410 and 411.

25 A. I have 410 and 411 in front of me.

26 Q. Okay. And the question says "Since these were

1 made between 1911 and 1930."

2 Now, you've researched historically those hooks
3 and the numbers on them and the symbology on them;
4 correct?

5 A. Correct. But it's from -- some of that original
6 information was from an unverified website. Other
7 information that we got from Hubbell who now owns Ohio
8 Brass confirmed that it is very likely that was the time.

9 Q. Okay. So we don't know for sure that they were
10 made during that time? Just based upon the available
11 data right now, the historical data, that is your
12 conclusion?

13 A. Yes. And I can say that we do know that these
14 were for sure made before 1967 because that would bring
15 an entirely different shape and design to their
16 stampings. And that was absolutely verified by Hubbell.

17 Q. Do you know if any of these C-hooks had been
18 replaced before?

19 A. I would love to know the answer to that. I
20 don't know. And I'm sure there's some of them that have
21 been. I could only assume. This isn't the first time
22 they've had an issue with them. But to my knowledge, I
23 don't know if any one had ever been replaced.

24 Q. In your review of the historical documents, the
25 maintenance documents, the repair documents from PG&E,
26 have you found any documents indicating that this -- that

1 the C-hooks on 27/222 had ever been replaced?

2 A. No.

3 Q. Or on 24/199?

4 A. Nope.

5 Q. Or 35/281?

6 A. No.

7 Q. Or 260?

8 A. No.

9 MR. NOEL: All right. Any further questions?

10 Madam Foreperson, the admonishment, please.

11 GRAND JURY FOREPERSON: Okay. Captain Kluge,
12 you are admonished not to discuss or disclose at any time
13 outside of this jury room the questions that have been
14 asked of you or your answers until authorized by this
15 grand jury or the Court. A violation of these
16 instructions on your part may be the basis for a charge
17 against you of contempt of court. This does not preclude
18 you from discussing your legal rights with your own
19 attorney.

20 Captain Kluge, what I have just said is a
21 warning not to discuss this case with anyone except the
22 Court, your lawyer, or the district attorney.

23 THE WITNESS: Okay.

24 GRAND JURY FOREPERSON: Okay. Thank you for
25 your time today.

26 THE WITNESS: Thank you.

1 MR. NOEL: It is now seven minutes to 3:00, our
2 normal break time. Take a 15-minute break and start up
3 fresh with Captain Lohse at ten after?

4 GRAND JURY FOREPERSON: Okay.

5 [Recess taken from

6 2:53 until 3:22 p.m.]

7 GRAND JURY FOREPERSON: Okay. We're ready. The
8 grand jurors have all returned, the members have all
9 returned from their break. And we will get started.

10 MR. NOEL: Captain Lohse, please.

11 GRAND JURY FOREPERSON: Captain Lohse, before
12 you have a seat, I need to swear you in. Would you
13 please raise your -- thank you.

14 Captain Lohse, do you solemnly swear that the
15 evidence you shall give in this matter pending before the
16 grand jury shall be the truth, the whole truth, and
17 nothing but the truth so help you God?

18 THE WITNESS: I do.

19 GRAND JURY FOREPERSON: Thank you. Have a seat,
20 please.

21 THE WITNESS: Thank you.

22 **EXAMINATION**

23 BY MR. NOEL:

24 Q. Captain, could you please state your full name
25 spelling your last name for the record.

26 A. Scott Lohse, L-o-h-s-e last name.

1 Q. Captain, by whom are you employed?

2 A. Cal Fire Department of Forest Fire and
3 Protection. Also known as Cal Fire.

4 Q. And in what capacity?

5 A. As a fire captain specialist with the Tehama
6 Glenn Unit.

7 Q. What is your specialist? What is your
8 specialty?

9 A. Fire investigator.

10 Q. How long have you been with Cal Fire?

11 A. Since 2006.

12 Q. Describe for us your career, the path in Cal
13 Fire -- within Cal Fire that has brought you to your
14 current position as a fire captain specialist.

15 A. Started with education. In 2006 I obtained an
16 associates degrees in fire technology from Butte College
17 and then I began my career in the same year with Cal Fire
18 as a firefighter. Obtained a bachelor's degree in public
19 administration from Chico State and also just
20 incorporated education towards my goal of being a Cal
21 Fire firefighter.

22 In 2011 I became a fire apparatus engineer and
23 went to a company officer academy where I was trained in
24 fire investigation; basic fire investigation. In 2016 I
25 went to POST, the California Peace Officers Standard
26 Training. Went to regular basic course. From there I

1 became a fire captain in March of 2016 and in my current
2 position that same year.

3 GRAND JURY FOREPERSON: Captain Lohse, excuse
4 me. Would you mind moving your microphone up a little
5 bit, please. We're having a hard time hearing you.

6 THE WITNESS: Okay.

7 MR. NOEL: Pull it towards you a little bit,
8 too.

9 THE WITNESS: Okay. Better?

10 GRAND JURY FOREPERSON: Yes. Thank you.

11 BY MR. NOEL:

12 Q. Sir, you're a peace officer?

13 A. Yes.

14 Q. What training do you have in wildland fire
15 origin and cause investigation?

16 A. I'm a certified National Wildfire Coordinating
17 Group fire investigator INVF. I'm also a state fire
18 marshall certified investigator one.

19 Q. Describe the training that qualifies you for
20 those certifications.

21 A. With the certified NWCG training you have to
22 have FI-210 as well as a basic task book that shows you
23 can accomplish a task as a fire investigator on multiple
24 incidents. And on top of that I completed the fire
25 investigation 310 which is an additional course based on
26 serial arson investigation.

1 Q. So you have completed 210 and 310. Is there a
2 110?

3 A. There is a 110 but having the 210 supercedes
4 that 110 basic course for general firefighting for fire
5 fighters.

6 Q. Okay. So 210 is specifically to origin and
7 cause investigation?

8 A. Correct. So 210 is the standard that Cal Fire
9 uses for our systematic investigations.

10 Q. And how long have you been a fire captain
11 specialist?

12 A. Since March of 2016.

13 Q. Did you have experience doing origin and cause
14 investigations prior to promoting to a fire captain
15 specialist?

16 A. Yes. Starting as a fire fighter in 2006 I
17 served as an assistant to company officers in origin,
18 cause, and determination. And when I became a company
19 officer in 2011, I was tasked with origin and cause and
20 as a fire apparatus engineer and have been so throughout
21 my career.

22 Q. To which unit were you assigned in November of
23 2018?

24 A. Tehama Glenn Unit.

25 Q. On November 8, 2018, were you ordered to assist
26 Butte County Fire with the Camp Fire?

1 A. I was not ordered to assist until November 12th.

2 Q. Okay. So on November 12 --

3 I don't know why I'm doing this. Give me a
4 second. Why do it from memory when you have it right
5 here.

6 All right. So what was your assignment on
7 November 12th?

8 A. My assignment was to assist in the origin and
9 cause investigation of the Camp Fire initially to conduct
10 the interviews.

11 Q. Okay. So physically did you have to respond to
12 Butte County?

13 A. Yes.

14 Q. And what kind of interviews were you supposed to
15 conduct?

16 A. Interviews related to residents in the area
17 regarding what they saw in regards to the Camp Fire.

18 Q. At some point on November 12th was your
19 attention or your assignment diverted?

20 A. Yes.

21 Q. To what?

22 A. I was assigned to go to Concow and Rim Road in
23 the community of Concow to assist in the investigation of
24 a possible second origin of the Camp Fire.

25 Q. Were you briefed prior to responding to Concow?

26 A. Yes.

1 Q. And why was it your belief the second fire was
2 in the area of Concow Road and Rim Road?

3 A. Photographs obtained from the Flea Mountain
4 lookout camera five showed a fire in that area separate
5 from the original Camp Fire.

6 Q. Now, I am showing you what has been marked as
7 Exhibits 56 and 57 for identification. Do you recognize
8 those photographs?

9 A. Yes, I do.

10 Q. What are Exhibits 56 and 57?

11 A. Exhibit 56 is from Flea Mountain camera lookout
12 five. This is an area of smoke coming from the
13 intersection of Concow Road crossing Rim Road taken at
14 6:48 a.m. on November 8th.

15 Q. How can you tell it's taken at 6:48 a.m.?

16 A. There is a caption at the top left that reads
17 so.

18 Q. Are you talking about this (indicating) right
19 here?

20 A. Yes.

21 Q. And that caption -- is that something that is
22 automatically supplied by the fire watch camera
23 equipment?

24 A. I would have to refer to someone else to answer
25 that.

26 Q. Okay. All right. So we're looking at 56 on the

1 board right here in front of us; correct?

2 A. Correct.

3 Q. Tell us what we're looking at.

4 A. We are looking south in the Flea Mountain
5 lookout camera five and we're showing smoke in the area
6 of Concow Road cross of Rim Road. And while at scene
7 standing at that location there's demarcations as far as
8 a saddle left of the smoke in a grassy area and to the
9 right of the smoke that helped us determine we were in
10 the right location for the original -- correction, for
11 the second Camp Fire.

12 Q. From this photograph how were you able to
13 determine a possible location in the intersection of
14 Concow Road and Rim Road?

15 A. Some of that determination was acquired before I
16 got there. But while looking at and observing this
17 photograph with the location -- seeing the location of
18 Flea Mountain lookout five as well as the certain
19 topographic features I just mentioned, we were able to
20 identify that this was the area of the second Camp Fire.

21 Q. And what does this photograph show to you as a
22 fire investigator?

23 A. That there's smoke and there'd been a fire.

24 Q. Moving on to 57 describe what we're looking at
25 on Exhibit 57.

26 A. Exhibit 57 was taken at 6:55. So seven minutes

1 after 56. And this is showing fire breaching the area of
2 approximately Rim Road in that same intersection.

3 Q. And feel free to get up and use the big board or
4 the Smart Board any time you want.

5 A. Okay. Thank you.

6 Q. So are you saying we could actually see fire on
7 this photograph?

8 A. Yes.

9 Q. Describe it.

10 A. There is fire here (indicating) at the base of
11 the road at this location here (indicating). This is Rim
12 Road and Concow Road goes this way and heads south.
13 Beneath this area there is a geographic bowl where the
14 Camp B Fire started.

15 Q. So we have to describe all of this for the
16 record. So we can see a flat light area going across the
17 top of this ridge and continuing past the fire. Are you
18 saying that that's Rim Road or Concow Road?

19 A. Correct.

20 Q. Okay. And then we can see what looks like
21 another road branching off going to the - if you're
22 looking at it from the bottom, up towards the top left
23 corner.

24 A. You actually can't see that road from here
25 because it's on this side here (indicating).

26 Q. Okay. Do you know what this is right here

1 (indicating)?

2 A. Yes. That is the little knob in that area.
3 It's just a little knob, a little deviation in the
4 topography.

5 Q. Okay. And the gold represents the fire?

6 A. Yes. The fire location at the given time.

7 Q. Now, originally you were shown photographs.
8 Eventually, were you shown -- were you able to obtain the
9 videos?

10 A. Yes.

11 Q. I have Exhibits 58 and 59. Do you recognize
12 those exhibits?

13 A. Yes.

14 Q. What are those exhibits?

15 A. Exhibit 58 is the Flea Mountain lookout camera
16 five showing the footage from the camera that you just
17 saw and then the second one 59-A is the Bloomer 9 East
18 camera which would be looking north towards the Camp Fire
19 fire origin.

20 Q. I'm sorry. We skipped that part. We didn't
21 even ask.

22 Did you become aware at some point that there
23 was possibly second camera footage of the Camp B Fire?

24 A. Yes.

25 Q. And what was that?

26 A. It was the Bloomer 9 East camera.

1 Q. Okay. So first off we have up on the big board
2 58, the video. I'm going to play the video. And can you
3 narrate to us what we're seeing.

4 A. This is Bloomer 9 East Fire Camp. It's not the
5 direction it's pointing. It's actually pointing to the
6 north.

7 Q. Actually, this is saying it's Bloomer. For some
8 reason we've got this mixed up.

9 A. Yeah. This is the Bloomer 9.

10 Q. Okay. This is Bloomer.

11 A. So this smoke here (indicating) is the original
12 Camp Fire.

13 Q. So describe what -- remember, we have to make a
14 record. So when you say "This smoke here --"

15 A. This smoke here in the top right-hand corner
16 represents the smoke from the large Camp Fire going on at
17 the time of this incident, at the time of this camera
18 footage showing it going from right to left and across
19 the screen.

20 Q. Oops. And, of course, this sucker.

21 GRAND JUROR NUMBER TWO: All of our exhibits are
22 off too, Mark. We don't have 56. What you were
23 referring to as 56 is 57 for us. Everything is a number
24 off.

25 GRAND JURY SECRETARY: Just a side note, when
26 Hartshorn was talking about them, they were labeled

1 incorrectly. So in your packet where it's Exhibit 57,
2 it's actually 56. So they're off by one number in the
3 packet if that helps.

4 MR. NOEL: And we somehow skipped a slide here.
5 So now we're back to 57; right? The Flea Mountain
6 camera?

7 GRAND JURY SECRETARY: Flea Mountain camera is
8 Exhibit 58.

9 MR. NOEL: Exhibit 58.

10 GRAND JURY SECRETARY: And in your packet it's
11 labeled 59, but it's really 58.

12 BY MR. NOEL:

13 Q. All right. So now we're at the Flea Mountain
14 camera. What are we seeing?

15 A. So this camera is looking south and it's showing
16 nothing as of now. And it'll get to a point where you'll
17 see a light smoke right here (indicating) in this area.
18 And that's the area of the still footage we looked at
19 earlier of the area of Concow Road and cross of Rim Road.

20 And later on this smoke, which I believe is from
21 the Camp B Fire -- or sorry, the original Camp Fire,
22 coming across the screen, you see all this smoke here
23 (indicating). This is the second origin, the Camp B Fire
24 that's at Rim Road across Concow Road.

25 Q. So basically, you start seeing smoke coming from
26 the area of Concow Road and Rim Road at about 7:00 --

1 A. Should be 6:48.

2 Q. Right. But in terms of the timeline on the
3 video, it's about 7.97, I think, seconds into the video.
4 And then the fire starts to appear here at 8:48.

5 Is that what it says? What does that say down
6 there? 7:66. Is that correct?

7 A. Correct.

8 Q. And now we restart it from here very quickly.
9 All that smoke is from the Camp A Fire?

10 A. Correct.

11 Q. The Camp Fire?

12 Okay. So now let's go to the Bloomer East.

13 A. As I mentioned earlier, Bloomer East is actually
14 facing the north. So fairly soon you should be able to
15 see the top. It's very quick. But in this area if you
16 can focus your attention on this area, you will see a
17 small area of smoke. And that is the Camp B Fire. This
18 large smoke coming across your screen is the original
19 Camp Fire. If we can freeze it -- oh.

20 Q. I'm trying to control it.

21 A. Oh.

22 GRAND JUROR NUMBER FOUR: We see it.

23 THE WITNESS: You see it. That is the area of
24 the Camp B Fire. And the Flea Mountain lookout camera
25 should be further north past that location. So we're
26 getting two different aspects.

1 BY MR. NOEL:

2 Q. All right. So once the possible origin that
3 Concow and Rim was identified, what happened?

4 A. We identified that location as a possible second
5 fire. So we proceeded to look at the whole area in
6 totality and determine if that was a second origin.

7 Q. Describe the process by which you did so.

8 A. As stated earlier, we used a 210 process. It's
9 a systematic investigation using the scientific process.
10 So first, we have to gather all this data to determine
11 where we go from there.

12 So we initially started walking from north to
13 south through that area that you saw earlier. And later
14 I refer to it in the report as a geographical bowl. And
15 we examine all the macro and micro fire indicators, macro
16 being the large scale, something you would see with a
17 naked eye, and micro later being the smaller versions
18 where you have to get down and really look at it in
19 detail.

20 We began observing all those indicators and
21 looking at all different impacted topography as the fire
22 affected the area.

23 Q. All right. You have in front of you the
24 exhibits. And I want to direct your attention to Exhibit
25 Number 60. Is that the correct number? The first photo
26 should be 60. Cool.

1 What are we looking at in Exhibit 60?

2 A. So if you can recall how you saw the image from
3 Flea Mountain lookout five, this is Concow Road right
4 here (indicating). And this comes around this way, if
5 you can imagine in your minds, and turns into Rim Road.
6 So we are actually looking south. This is the
7 geographical bowl I was referring to.

8 Within that geographical bowl we have a PG&E
9 12 kV conductor line running south to north through this
10 whole area. And so we are taking -- this is a picture --
11 an overall picture of that whole area, that whole
12 geographical bowl.

13 Q. So describe for us how using your 210 training
14 and requirements you began your investigation.

15 A. So the initial phase we're just looking at it.
16 Does this match the area and do these indicators that we
17 see in this area match the video of that?

18 So with our investigations we usually start from
19 the area of most damage to the area with the least
20 damage. But like I stated, we first examine this whole
21 area looking from north to south examining all the fire
22 indicators and things that came up. As I said, we're
23 looking at macro indicators. We are seeing on this
24 portion where I am located now the fire coming up at us.

25 And also as we walked down through this bowl,
26 the ground of this area -- if you can think about pottery

1 and stuff like that -- is hot. Something that is burned
2 like hot soil is a crunchy, crunchy, brittle soil.

3 As you walk down through this bowl, we began
4 noticing there's a little more vegetation, a little more
5 soil that was soft, pliable as it sustained less heat.

6 So with wildland fires near the origins there
7 should be less fire intensity. And that's why we go from
8 the area of more intensity, more damage to the area of
9 least damage.

10 So think of a match in a field. When that match
11 hits the ground, it's a very low intensity. It starts to
12 build, starts to build, and as it gains momentum is when
13 you see your most damage. So we try to go from the most
14 damage to the least damage.

15 Q. Okay. Let's move on to Exhibit 61.

16 A. Now, as I stated earlier, this is just us
17 examining the whole area, seeing what was in the area.
18 So this shows the conductor line. There are two
19 different conductors running south to north through this
20 whole area. And on the northern section of this
21 geographical bowl is a pine tree that is down on the
22 lines.

23 Q. And what are the lines? You say --

24 A. It's a PG&E conductor 12 kV conductor.

25 Q. And are the lines visible -- the electrical
26 conductor visible in the photograph?

1 A. Yes.

2 Q. All right. You're talking about the gray lines.
3 Two of them are joined together coming off the bottom
4 right side of the photograph going to the middle of the
5 photograph?

6 A. Correct.

7 Q. Once you've gotten your overall view, what are
8 you doing next?

9 A. Once I got -- once we had our overall view, we
10 start really looking at the indicators and going from the
11 area of most damage. We start down here because of all
12 the -- if you can look at all these -- the treeline up
13 here, you can see there's more foliage over here on this
14 side in the middle of the picture at the top as compared
15 to the right side top. So we determine that this area
16 was the area of most damage. And we're going to start
17 looking at indicators from back this way back to where a
18 possible origin could be detected.

19 Q. When you're talking about indicators, describe
20 for us what you're talking about.

21 A. Indicators represent an object or an area on the
22 ground that represents how the fire traveled through. So
23 if you can think about this paper right here, the fire
24 came from this (indicating) way this. This would be
25 damaged and this would be protected. So a lot of the
26 indicators we looked at is protection.

1 So if we see that the fire -- this paper is
2 damaged on this side and protected on this side, we can
3 gather that the fire came from this direction. And that
4 is an example of a fire indicator. But with all those
5 fire indicators we can get the fire vector, which is the
6 overall fire pattern and movement of the fire.

7 Q. Okay. Let's move on to Exhibit 62. What are we
8 looking at in Exhibit 62?

9 A. This is an example of an advancing fire
10 indicator. With our investigations there are three paths
11 a fire will take. There's advancing fire going forward,
12 the main heat of the fire, there's a lateral fire that
13 will go from side to side, and there is backing fire
14 which is basically the opposite of advancing. It's a
15 slow -- more slow burning away from the fire.

16 This photograph here represents an advancing
17 indicator as shown by the red placard on the bottom. You
18 can look at these grass stems. The tops -- it's called
19 cupping.

20 So we determined this indicator shows the fire
21 coming from your location this way in the photograph.
22 This is because of the cupping. The cupping is at an
23 angle like this per say where if the fire came from this
24 way, it's going to burn at an angle and burn this side
25 first and create basically a cup at the top of that stem
26 of how it burned.

1 Also you see in the reverse photograph that --

2 Q. Which is 63.

3 A. -- when we use the reverse photograph, that side
4 was more damaged than these stems on this side. And that
5 is that protection I was talking about and referring to.
6 As the fire comes from forward to back in the photograph,
7 it protects -- this side is protected. So this red arrow
8 represents the fire travel in this photograph.

9 Q. So now we're talking about 63, which is another
10 view of 62 from the other side?

11 A. Correct.

12 Q. So more damage to lesser damage?

13 A. Correct.

14 Q. Okay.

15 A. These photographs were taken at the north end of
16 the geographical bowl that I explained earlier closer to
17 the Rim Road side.

18 Q. All right. Move on to 64.

19 A. This is the same area as the previous two
20 photographs but showing more protection and more of the
21 overall picture of all these -- each of these are
22 indicators. Those represent the whole fire vector. The
23 fire is basically coming up this way from right to left
24 in the photograph. And later the origin of the fire was
25 closer to the right top corner of this photograph.

26 Q. So when we're looking at these, we're looking at

1 all these stems that are sticking out. They are all
2 consistently burned from the right side and going up into
3 the left side; correct?

4 A. Correct.

5 Q. And they are all over. Let's use our pen here
6 when it comes on. All right. It's a red pen.

7 So we're talking about these areas right here.
8 Some of the best ones that you can see are on here?

9 A. Correct.

10 Q. And you're saying it's not an accident that the
11 burning is all going that way or that the stems have all
12 burned very similar pattern?

13 A. Correct.

14 Q. That's an indication of fire direction?

15 A. Correct.

16 Q. That means this fire was moving from the right
17 to the left as the arrow shows?

18 A. Correct.

19 Q. All right. We will save that and print it out
20 later.

21 All right. Let's move on to Exhibit 65. See
22 that photograph?

23 A. Yes.

24 Q. What does -- now we're looking at something
25 yellow. Tell us about 65.

26 A. The yellow placard represents lateral fire

1 spread. So we have advancing going forward, lateral to
2 the sides. It will exhibit a lot of the same
3 characteristics as an advancing fire. It's just
4 basically the direction of the travel which makes it
5 specific.

6 So here we are looking at these -- this tree and
7 all the -- the trunks of the tree. And you can see
8 looking at this photograph there is relatively little
9 damage on the bark itself. So in this photograph it's
10 going from top to bottom fire travel.

11 Q. How do you tell lateral as opposed to forward?

12 A. Forward or advancing fire is -- basically it's
13 your direction of travel, but lateral fire indicators
14 should not be as pronounced as severe as advancing fire
15 because the fire is flanking to the right. It doesn't
16 have the momentum going forward.

17 Q. Let's go on to 66. Explain what we are looking
18 at on 66.

19 A. This is a reverse of the previous photograph,
20 and it represents the area the fire came from. So it's
21 another lateral indicator showing that this arrow is the
22 way the fire travelled. The fire traveled this way
23 leaving the backside of this little tree protected as
24 you saw in the previous photograph.

25 Q. So this we're looking at the tree from the
26 direction the fire is coming from; correct?

1 A. Correct.

2 Q. So you're actually seeing burning and charring
3 on the side of the tree facing us?

4 A. Correct.

5 Q. Whereas on the previous photograph 64, 65, there
6 doesn't appear to be any charring?

7 A. Correct.

8 Q. All right. Let's move on to 67. What are we
9 looking at in Exhibit 67?

10 A. Exhibit 67 is an area we determined there was
11 backing indicators with the blue upside down "U." You
12 can see at the bottom of the photograph here depicting
13 backing indicators as far as the amount of vegetation
14 left on the brush in this photograph and it's drooping
15 toward the fire toward where the fire came from to where
16 this is near Concow Road to where there's advancing fire
17 from Concow Road. And we determined that that was due to
18 the original Camp Fire meeting -- with the heat flux of
19 that fire meaning the backing indicators of the Camp B
20 Fire.

21 Q. Okay. So let's back up a little bit. In this
22 picture we have two different color flags. We have blue
23 flags and we have red flags. Is that correct?

24 A. There's a yellow over here also.

25 Q. Awe, okay. There's a yellow flag over there.
26 Is the color of the flag significance?

1 A. Yes. The color of the flag is a fire indicator
2 shown at that particular location. So red meaning
3 advancing, blue meaning backing, yellow meaning lateral
4 indicators.

5 Q. And then you said we have the upside down "U"?

6 A. Correct.

7 Q. Which means what?

8 A. The top of this placard here represents the fire
9 going this (indicating) way. So the -- I don't know how
10 to explain that. It's basically a point to where the
11 fire is going to.

12 Q. So the fire at that point where the blue upside
13 down "U" is you determine at that point the fire is going
14 up the photograph?

15 A. Correct.

16 Q. And then above that are a series of red flags
17 and a red arrow pointing directly at the or almost
18 directly at the blue "U"?

19 A. Correct.

20 Q. So we have fire coming the opposite direction
21 also?

22 A. That's correct.

23 Q. And explain to us how you determine that the red
24 arrows, the advancing fire coming away from Concow Road
25 were part of the original Camp Fire as opposed to the
26 Camp B?

1 A. So if there was no other influence on this top
2 portion of this soil here, we would continue to see the
3 backing indicators coming from the Camp Fire origin all
4 the way up to the top of the photograph. But as you see
5 in the photograph the degree of severe damage we have
6 here as well as these rocks exhibited protection and just
7 the devastation of that represented the fire traveling
8 downward in the photograph. So it did maintain the
9 consistent backing indicator all the way up to the road.

10 Q. So in that one area we have fire moving in
11 totally opposite directions?

12 A. Correct.

13 Q. All right. Exhibit 68. What are we looking at?

14 A. We are looking at a Ponderosa pine that had
15 fallen towards the southwest. I identified this as the
16 subject tree.

17 Q. What do you mean by the "subject tree"?

18 A. I determined to reference this tree for
19 references within my report, but it's the subject tree
20 being that it's the tree that caused the Camp B Fire.

21 Q. Okay. We'll get to the cause in a minute.

22 How were you able to determine the origin area
23 of this fire?

24 A. From all the -- like I said, the 210 course I
25 described earlier, we kick off where the origin of the
26 fire is. So with the subject tree we had to look at the

1 subject tree in detail to determine --

2 If I can backtrack. First off, this is an
3 earlier photograph when we first walked through the scene
4 as I talked about earlier to get an overall overlay of
5 the scene.

6 While the indicators you previously saw and in
7 all the photographs we came to a general origin area that
8 is basically an area where we determined generally where
9 the fire started. And we take that area and we work in
10 even more intensely to determine the exact origin of the
11 fire.

12 So this subject tree was in that general origin
13 area. And we needed to look at this subject tree further
14 to identify how it got there.

15 Q. All right. And Exhibit 69 -- what does this
16 show?

17 A. This shows the stump of the -- that same subject
18 tree. It also shows how the remaining subject tree
19 bottom exists as well as the condition of the stump with
20 burning and charring on the left side of the photograph
21 and more unburned on the right side.

22 Q. All right. Exhibit 70. What are we looking at?

23 A. Exhibit 70 shows the subject tree looking
24 southwest. The subject tree is in the middle of the
25 photograph pointed toward the southwest. Also present
26 are evidence placards placed at where evidence locations

1 were with the left side of the photograph showing the
2 subject tree stump.

3 Q. What is the significance of the evidence
4 placards?

5 A. The evidence placards show where evidence is
6 located. Those are also logged with GPS, but these
7 evidence placards represented seconds of illuminated
8 conductor. This here was the subject tree itself and
9 this one near the stump on the left side of the picture
10 was for the stump itself.

11 Q. And Exhibit 71. Can you plan this photograph.

12 A. Yes.

13 Q. Go ahead.

14 A. Exhibit 71 shows the bottom end of the subject
15 tree and the fibers and everything remaining on the
16 subject tree. Also we have the subject tree laying on an
17 existing log that was laying on the ground.

18 Q. Why is that significant?

19 A. It becomes significant to determine if the tree
20 fell before or after the fire.

21 Q. How would that log laying underneath the tree
22 help determine if the tree fell before or after?

23 A. If the tree fell before the fire, there should
24 be protected vegetation or protected wood underneath the
25 subject tree in between the log laying on the ground. If
26 it fell after the fire, there should be no protection

1 because that area would have already burned. It would be
2 black already on that log.

3 Q. All right. Exhibit 72. What are we looking at?

4 A. This is the subject tree stump. This shows the
5 condition of the subject tree stump. And as you -- if
6 you could zoom in, you could see the top. And at the
7 scene we saw the top of this subject tree stump was not
8 fresh. It did not look as if it had splinters, fresh
9 splinters from a just fallen tree. In fact, it looked as
10 if it had been subjected to smoke and fire. Another
11 indicator suggesting that this tree could have fallen
12 before the fire.

13 Q. So you're saying that down here at the break
14 there appears to be fire damage?

15 A. Correct.

16 Q. And that would indicate what?

17 A. That the tree fell before the fire.

18 Q. How so?

19 A. If the tree fell before the fire, the stump
20 would be remaining standing still. When the fire would
21 come through, the fire would burn the remaining portion
22 of what is left of the subject -- or correction, of the
23 stump.

24 Q. Well, these portions -- the interior portions of
25 the stump would only be exposed to the fire if the tree
26 fell before the fire came through; is that correct?

1 A. Yes.

2 Q. All right. Exhibit 73 is a photograph.

3 The missing pages from earlier. We can take them later.

4 All right. The photograph marked as Exhibit 73,
5 what are we looking at?

6 A. Exhibit 73 shows the area -- the top of the
7 geographical bowl and the north side of the geographical
8 bowl. If you look further into the picture on the left
9 side in the middle going from left to ride is the subject
10 tree. This is a tree at the top of that bowl that fell
11 as we determined fell after the fire due to the
12 splintering in the fresh -- the fresh wood remaining on
13 the stump.

14 Q. Right. I want to contradict this with what we
15 saw before. You're talking about this stump right here
16 on the right side of the photograph; correct?

17 A. Correct.

18 Q. And he let's activate our pen. And we can draw
19 on this now.

20 So you're talking about this (indicating) damage
21 right there on the -- the right side of the circle in
22 red; correct?

23 A. Correct.

24 Q. And explain to us why that is different from
25 what was over on the subject tree?

26 A. The splinters and wood remaining in this area is

1 unburned where a fire term we called protected because we
2 determined this fell after the fire came through with the
3 outer bark being burned and this remaining clean and
4 unburned. The fire fell -- or the tree fell after the
5 fire that's -- opening up the stump which was protected
6 earlier.

7 Q. All right. So is the subject tree shown on this
8 photograph?

9 A. Correct, yes.

10 Q. Let's go with a different colored pen. Let's go
11 with a blue pen.

12 Can you show us by circling the subject tree for
13 us.

14 A. (Witness complies.)

15 Q. All right. So circled in blue going from upper
16 left-hand side to the middle of the photograph to a tree
17 laying on its side, that's what you referred to as the
18 subject tree?

19 A. Correct.

20 Q. Okay. What else is significant in this
21 photograph?

22 A. The PG&E 12 kV conductor line running south
23 north or top to bottom left to right in the photograph.

24 Q. All right. Using the -- let's use a highlighter
25 to do this. Using the yellow highlighter can you trace
26 for us the electrical line with the conductor you're

1 talking about.

2 A. Yes. (Witness complies)

3 Q. All right. So you've highlighted a thin gray or
4 silver kind of squiggly line that's moving from the
5 bottom of the photograph up towards the center of the
6 photograph?

7 A. Correct.

8 Q. All right. And let's save that. And this will
9 be 73-A?

10 [Exhibit 73-A marked
11 for identification.]

12 BY MR. NOEL:

13 Q. Okay. Let's move on to 74. What are we looking
14 at in 74?

15 A. Exhibit 74 is the subject tree stump.

16 Q. And what is the significance of this photograph?

17 A. The significance of the photograph is showing
18 the stump in relation to its topography as well as the
19 burn charring on the right side of the stump compared to
20 last time.

21 Q. How do we see the burn patterns you're
22 describing in this photograph?

23 A. The burn patterns are charring on the right side
24 and more protected on the left side. And more to this
25 photograph was just getting the overall remaining ends of
26 the stump to see how it fell, how it broke.

1 Q. Okay. Let's move on to 75. What are we looking
2 at in Exhibit 75?

3 A. This is the top end of the subject tree stump
4 looking down.

5 Q. And what does this photograph show or supposed
6 to depict?

7 A. This shows that the top of the subject tree
8 stump is not -- it does not have clean, protected wood.
9 The wood, in fact, has been charred and been subjected to
10 heat.

11 Q. Why is that significant?

12 A. Because it helps us determine if the tree fell
13 before or after the fire.

14 Q. Exhibit 76. Explain to us what we're looking
15 at.

16 A. Exhibit 76 shows the PG&E conductor running from
17 the top left to the bottom right showing the conductor
18 ending near the middle of the screen and also showing the
19 overall totality of the area.

20 Q. Why is that conductor of significance?

21 A. The conductor is significant because in this
22 photograph it shows that the conductor was broken on the
23 left side -- in this photograph the left side of each
24 conductor.

25 Q. How does the -- how can we see that?

26 A. The conductor did not continue all the way to

1 the south.

2 Q. Let's continue on to Exhibit 77. What are we
3 looking at here?

4 A. This shows a photograph looking at the overall
5 scene as well as a tree we determined by the same way we
6 determined the previous two stumps that you had shown to
7 fall after the fire with the conductor running through
8 the area as well as melted -- melted aluminum going
9 through from left to right in the photograph.

10 Q. So what is the significance of melted aluminum?

11 A. Melted aluminum based on our hypothesis
12 determine that the conductor was in fact in the air as
13 the fire passed through at this location.

14 Q. How so?

15 A. If the conductor is in the air, this is what we
16 call "aluminum drip." So it's basically aluminum was
17 melting off the steel core of the conductor and dropping
18 to the ground. And this is actually the conductor to the
19 right -- top right of the aluminum drip is a PG&E
20 conductor that is still intact.

21 So by determining that this tree -- by -- these
22 helped us determine as well as the stump that this tree
23 fell after the fire or the aluminum was suspended during
24 the fire. The tree fell after a fire passed through and
25 pushed the remaining aluminum conductor down the hill.

26 Q. Okay. Let's use our pen again as soon as this

1 opens up. And we'll call this 77-A.

2 So let's start off with our yellow highlighter
3 first. Can you highlight the in tact conductor you're
4 describing.

5 A. Yes. (Witness complies)

6 Q. All right. Now, let's use the blue highlighter.
7 Can you highlight for us what you indicated as the
8 aluminum drip or the aluminum pieces on the ground.

9 A. Yes. (Witness complies)

10 Q. All right. So now you've highlighted those
11 areas or surrounded or circled those area with the green
12 highlighter?

13 A. Correct.

14 Q. And let's use the blue highlighter itself. If
15 you can highlight -- pick out one or two pieces of the
16 aluminum drip or melted aluminum on the ground just to
17 highlight it.

18 A. (Witness complies).

19 Q. All right. So we'll -- like I said, we'll mark
20 that as 77-A.

21 [Exhibit 77-A marked
22 for identification.]

23 BY MR. NOEL:

24 Q. Going on to 78, what are we looking at in the
25 photograph marked Exhibit 78?

26 A. This is a severed end of one of the conductors

1 within the general origin area of the Camp B.

2 Q. What do you mean a severed end?

3 A. An end that we determined was severed from the
4 remaining portion of conductor. It did not continue
5 through the whole thing.

6 Q. Okay. And why is the severed conductor of
7 significance to you?

8 A. It's of significance because we -- there had to
9 be a reason for the conductor to break. And with the
10 factors of the subject tree being crossed, the area where
11 the PG&E conductor would have been is a significant piece
12 to the puzzle.

13 Q. Okay. What do you mean the subject tree being
14 across the area where the conductor would have been?

15 A. The PG&E conductor line ran south to north and
16 the subject tree fell to the southwest across the area
17 where the PG&E conductor would have been if it is
18 suspended.

19 Q. How can you tell that the conductor ran south to
20 north?

21 A. Due to the location of the poles. The power
22 poles.

23 Q. All right. So the power -- you were able to see
24 the locations of the relative power poles?

25 A. Correct.

26 Q. And where was the subject tree laying on the

1 ground in relation to the power poles?

2 A. It was in between poles -- it was in between the
3 pole on the northern section of the geographical pole we
4 saw earlier and -- sorry. Let me backtrack that. It
5 was -- I have a diagram that shows the scene which may
6 help.

7 Q. All right. We'll get to that in a second.

8 All right. Let's move on to 79. What are we
9 looking at in Exhibit 79?

10 A. This is another PG&E conductor that is severed
11 from the remaining intact conductor.

12 Q. Exhibit 80?

13 A. Another section of the severed end of the
14 aluminum PG&E conductor.

15 Q. Exhibit 81?

16 A. This is the severed end of the conductor that
17 was across Concow Road basically south of the
18 geographical bowl I depicted earlier. And this
19 photograph shows that the pins were not only cut with
20 some type of cutting device.

21 Q. How can you tell that?

22 A. Based on the serrations of the metal itself
23 where if we looked at the previous photograph, they were
24 more jagged edges. This photograph shows that they were
25 almost pressed.

26 Q. It looks like there's a good photograph in 78.

1 Can you highlight the difference between what we
2 were looking at in 78 on the ends and 81?

3 A. Yes. So these ends are jagged.

4 Q. Do you want the pen?

5 A. Yes.

6 Q. Hit your little arrows. Hit the arrow. There
7 you go. And then the center pink. And that will bring
8 you up your pen. It will take a second. There you go.
9 Now, you've got a red pen.

10 A. These ends are jagged, and they do not exhibit a
11 shiny fresh cut as compared to the other photograph.
12 This steel section of the one conductor is also different
13 from the severed conductor by tool.

14 MR. NOEL: All right. So let's save those. And
15 we'll mark that as 78-A. And we'll print that out and
16 get it marked and brought back to you.

17 [Exhibit 78-A marked
18 for identification.]

19 BY MR. NOEL:

20 Q. All right. Let's move on to 82. Explain
21 Exhibit 82 to us.

22 A. Exhibit 82 is another severed PG&E conductor.
23 This was south of the subject tree's location where the
24 previous --

25 Sorry. I'll stop there.

26 Q. And Exhibit 83.

1 A. Exhibit 83 shows the subject tree from right to
2 left in the right top of the photograph as well as a PG&E
3 power pole in the center of the photograph from bottom to
4 top as well as a PG&E conductor from the left side of the
5 photograph ending at the location of a power pole which I
6 later identified as PG&E pole number two.

7 Q. Okay. So this is a PG&E pole right here dead
8 center going up the photograph?

9 A. Correct.

10 Q. And where is the subject tree in relation to
11 this?

12 A. The subject tree is to the right on the right
13 side of this photograph.

14 Q. Did you examine the PG&E pole?

15 A. Yes.

16 Q. And obviously, just for the record, this pole is
17 laying on the ground. It's not standing up.

18 A. Correct.

19 Q. And do you see other parts to this pole in the
20 photograph?

21 A. Correct. At the bottom of the photograph is the
22 remaining stump of the PG&E pole number two.

23 Q. Anything else that should have been attached to
24 this pole?

25 A. The cross member which they call that would be
26 at the top is from the left side of this photograph as

1 well as an insulator bolt that would hold the PG&E
2 conductor.

3 Q. So we've got a lot going on in this photograph.
4 Let's mark this. So right here in red that's the pole;
5 correct?

6 A. Correct.

7 Q. And where is our subject tree?

8 A. (Indicating.)

9 Q. Okay. So go ahead and mark that subject tree.

10 A. Same color?

11 Q. Same color with your finger.

12 And let's write "subject tree."

13 A. (Witness complies.)

14 Q. And somehow I dragged something across there,
15 and there's squiggles between the two.

16 All right. Now, can you mark the stump.

17 A. Yes.

18 Q. Let's mark that as "stump."

19 A. (Witness complies.)

20 Q. And how do you determine that that stump belongs
21 to that pole?

22 A. We examined the severed ends of the pole itself
23 as well as the stump and determined the ends matched each
24 other.

25 Q. All right. So next we have crossarm. So why
26 don't you identify the crossarm.

A. (Witness complies.)

Q. And just right "X arm," I think.

And you said there's an insulator bolt?

A. Correct.

Q. And circle that and mark that "INSBLT."

A. (Witness complies.)

Q. And finally -- sorry. Finally, you said there's a conductor running through here?

A. Correct.

Q. So let's do that with our highlighter and highlight in yellow the conductors that you see.

A. And this was determined to be not a current conductor. That was an old piece of --

Q. And you're talking about the -- what appears to be a wire that's running through --

A. Correct.

Q. -- from the insulator bolt, across the top, and down past the stump?

A. Correct.

Q. Let's save this as 83-A.

[Exhibit 83-A marked

for identification.]

MR. NOEL: This is probably a real good time to break before we start moving into other areas of this.

GRAND JURY FOREPERSON: Okay.

MR. NOEL: So it's about 4:26 it looks like or

1 4:24. Normally, we stop at 4:30. So we could come back
2 next week and finish him up and do whatever other
3 witnesses we have for next week.

4 GRAND JURY FOREPERSON: Okay.

5 MR. NOEL: Plan on a short day next week.

6 GRAND JURY FOREPERSON: Okay.

7 Captain Lohse, you are admonished not to discuss
8 or disclose at any time outside of this jury room the
9 questions that have been asked of you or your answers
10 until authorized by this grand jury or the Court. A
11 violation of these instructions on your part may be the
12 basis for a charge against you in contempt of court.
13 This does not preclude you from discussing your legal
14 rights with your own attorney.

15 Mr. Lohse, what I have just said is a warning
16 not to discuss this case with anyone except the Court,
17 your lawyer, or the district attorney.

18 Do you understand?

19 THE WITNESS: I understand, yes.

20 GRAND JURY FOREPERSON: Okay. Thank you for
21 your time today.

22 THE WITNESS: Thank you.

23 MR. NOEL: All right. You may step down for
24 right now.

25 Are we in recess for the night, Madam
26 Foreperson?

1 GRAND JURY FOREPERSON: Yes, we are.

2 MR. NOEL: Okay. Be back next Tuesday at 8:30?

3 GRAND JURY FOREPERSON: Yes.

4 [Matter adjourned at 4:25 p.m.]

5 ---oOo---

COURT REPORTER'S CERTIFICATE

This is to certify that I, Lisa McDermid Welch, a Certified Shorthand Reporter of the State of California was present at the time and place the foregoing grand jury proceedings were had and taken in the within matter; and that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings; and afterwards caused my said shorthand writing to be transcribed into typewriting; and the foregoing pages, beginning at the top of Page 1 to and including Page 200 hereof, constitute a full, true, accurate, and complete record of the proceedings.

DATED: This 6th day of June, 2022.

Lisa McDermid Welch

LISA MCDERMID WELCH, CSR, RPR
CSR LICENSE NO. 10928

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

BCSC-2019-GJ-01

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REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, AUGUST 6, 2019

VOLUME 15

OROVILLE, BUTTE COUNTY, CALIFORNIA

JENNIFER L. HUNT, CSR 10735, OFFICIAL COURT REPORTER

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APPEARANCES:

FOR THE BUTTE COUNTY

DISTRICT ATTORNEY'S OFFICE:

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(Present) Marc Noel, Deputy District Attorney

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Oroville, California 95965

FOR THE STATE OF CALIFORNIA

DEPARTMENT OF JUSTICE

OFFICE OF THE ATTORNEY

GENERAL:

(Not present) Nicholas M. Fogg, Deputy Attorney General

(Not present) Megan Richards, Deputy Attorney General

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OROVILLE, BUTTE COUNTY, CALIFORNIA

TUESDAY, AUGUST 6, 2019

8:30 a.m.

(Confidential Grand Jury Proceedings)

-oOo-

[ROLL CALL OMITTED.]

[DISCUSSION OMITTED.]

GRAND JURY FOREPERSON: Captain Lohse, raise
your right hand, please.

CAPTAIN SCOTT LOHSE
having been called as a witness in
the matter now pending, having been first
duly sworn, testifies as follows:

THE WITNESS: Yes.

GRAND JURY FOREPERSON: Thank you. Have a
seat, please.

EXAMINATION

BY MR. NOEL

Q. Captain Lohse, when we left off last week we
were looking at Exhibit No. 83 and talking about the
fallen power pole. I want to go back at this point and
refresh a little bit on your methodology for conducting a

1 wildland origin of cause investigation.

2 You talked about how you go around and you look
3 at all the, look at all of the micro indicators, macro
4 indicators. Explain to us your mental process as you are
5 doing so.

6 A. As I'm doing so, I'm making sure to keep the
7 scientific process in mind for collecting data. All the
8 macro and micro indicators you just mentioned are part of
9 collecting that data in order for us to determine a
10 hypothesis on what started the fire, called an "origin
11 and cause" investigation. So we always go find the
12 origin of the fire first, where the fire was located,
13 where it was started. Then from that area determine what
14 actually caused the fire.

15 Q. What are these hypotheses, hypotheses?

16 A. Are you talking for this fire?

17 Q. Just in general.

18 A. Hypothesis is a, based on all the data given,
19 it's a working, a working idea, working theory to
20 disprove. So we always work to disprove a hypothesis.
21 From all that data and everything we have, we're trying
22 to disprove the theory that we have come up with in what
23 started the fire. That's based on, like I said, all the
24 data that's available.

25 Q. Do you only have one hypothesis?

26 A. No. We, based on the data that we have, we

1 were able to form multiple hypotheses and try to disprove
2 each to better identify the most probable cause of any
3 fire.

4 Q. As you were walking through, doing the origin
5 investigation at the Camp B fire, did you formulate
6 hypothesis, hypotheses regarding what caused the fire?

7 A. Yes. And this is determined after we have
8 looked at the fire indicators and came to a general
9 origin area, basically an area that we say this is
10 generally the area the fire started, and we can work
11 further in from here. I developed from this fire five
12 different hypotheses.

13 Q. Do you recall your five different hypotheses?

14 A. If I can look in my report?

15 Q. If that would refresh your recollection.

16 For the record, Captain Lohse has a copy of his
17 Origin and Cause Report with him.

18 A. And I refer to these hypotheses as
19 possibilities, but the general working hypothesis, I had
20 five different possibilities.

21 Possibility No. 1 was the subject tree that we
22 identified earlier fell prior to the fire, struck PG&E
23 conductors lines, creating ignition against subject tree,
24 leaving power pole in this photo in place. The recloser,
25 PG&E recloser opened the circuit with no other ignitions
26 occurring. The conductor lines fell to the resting

1 location. Basically the fire was started by the subject
2 tree falling to the PG&E conductor lines, creating a fire
3 against the tree.

4 Possibility No. 2 is the subject tree fell
5 prior to the fire, struck the lines, creating ignition
6 into the tree. Pole number 2 stayed in place. Lines
7 separated, arced to the ground, making contact with
8 either one or both lines, creating multiple ignition
9 sources for the lines contacting the ground. This
10 hypothesis was based on the possibility of multiple fires
11 occurring from the hot ends, or electrically charged ends
12 of the conductor lines falling.

13 Possibility No. 3 suggested, was the subject
14 tree fell prior to the fire, struck de-energized lines
15 with no ignition, but left broken conductors, that the
16 fire resulted from another source.

17 Possibility No. 4 was a subject tree fell
18 during the fire when the fire passed through, struck the
19 conductor lines, creating ignition against the tree, but
20 after the fire was already in its location.

21 Q. So let me stop you on No. 4. When you say
22 "subject tree fell during the fire," what do you mean?

23 A. That the fire was already in place prior to the
24 subject tree falling.

25 Q. Okay. And what fire would that be?

26 A. The Camp Fire.

1 Q. Okay. So you're talking about the larger Camp
2 Fire coming in and roaring through as opposed to B fire
3 starting --

4 A. Or any fire. I was -- just based on the data I
5 have, I just wanted to rule out that the strike, or the
6 tree fell prior to the fire. So by looking at this,
7 basically saying the subject tree fell during the fire
8 when the fire passed through. So we had to rule that out
9 basically.

10 Q. Okay. Go ahead.

11 A. Possibility No. 5 was that the fire started
12 from a 1996 Dodge pickup that was located on Concow Road
13 south of Rim Road.

14 Those are my five possibilities I referred to
15 in there.

16 Q. Now, most of those possibilities involved in
17 some way this electrical line that was running through
18 the area?

19 A. Correct, except for possibility No. 5.

20 Q. Do you have any specialized training in
21 investigating electrical-line-caused wildland fires?

22 A. Yes.

23 Q. Please explain that to us.

24 A. I've taken online courses on the basic elements
25 of electricity, as well as been involved in the 2017
26 Sonoma County fires as well as the Creek Fire in southern

1 California in 2017. Those are both large wildland fires
2 originating from electrical equipment.

3
4 (Grand Jury's Exhibit 84 introduced.)

5
6 Q. Let's start going forward to Exhibit 84. Now
7 that you've made these hypotheses, that this is possibly
8 a, electrical-line-caused fires, what steps do you take
9 next?

10 A. Once that's been determined, we basically try
11 to, due to the scientific process, try to rule out or
12 disprove all hypotheses. And we're still collecting data
13 as the fire -- as our investigation continues.

14 The photograph here is of a PG&E recloser that
15 was approximately 1.1 miles south of the Camp B origin
16 area. This recloser shows that it was open at the time
17 of this photograph. This recloser was, as I said, 1.1
18 miles south of the fire, Camp B Fire. It was located on
19 a pole that was disconnected from its original pole, had
20 broken off, was on the side of the road.

21 Q. Do you know what a recloser is?

22 A. Yes.

23 Q. What is a recloser?

24 A. A recloser works as a, originally for fire
25 control or fire safety method for PG&E, in this case.
26 Basically when there's a fault against the line, a

1 recloser is intended to attempt to correct any fault that
2 was created by reclosing. So when a fault occurs, the
3 circuit was open, the recloser basically recloses the
4 circuit to attempt to fix whatever issue is going on.

5 This recloser was a one-time recloser, meaning
6 it had locked. It had been changed to incorporate -- due
7 to the fact that this is in a high fire hazard area, it
8 would just -- if a fault happened, it would not reclose
9 the circuit, it would just open and stay open.

10 Q. So what does it mean for the circuit to be
11 open?

12 A. For the circuit to be open -- as electricity
13 flows, it needs a closed circuit, so it needs full
14 contact. If you can imagine any electrical circuit,
15 lights in this room, they're all on one closed,
16 self-continuous circle or circuit. As soon as that
17 circuit is opened, a line is cut to where there's a
18 separation in electrical connectivity, it stops the flow
19 of electricity.

20 Q. So what does it mean to you that this recloser
21 was open?

22 A. This means to me that a fault occurred on the
23 line. And being the fact that the power flowed from
24 south to north, that something north of this recloser
25 faulted on the 1101 Big Bend 12 kV circuit.

26 Q. Why is that significant?

1 A. It is significant because that area
2 incorporates the area of the Camp B Fire.

3 Q. Now, you said that the power at that area flows
4 from south to north?

5 A. Correct.

6 Q. How were you able to determine that?

7 A. That was determined through conversations with
8 PG&E personnel, above my level.

9 Q. All right. Was the recloser depicted in item
10 No. 84, or Exhibit No. 84, collected and seized as
11 evidence?

12 A. Yes.

13

14 (Grand Jury's Exhibit 85 introduced.)

15

16 Q. All right. Okay. So now on to No. 85.
17 Showing you photograph marked as Exhibit No. 85, can you
18 explain to us what we're looking at?

19 A. This is the photograph I took looking south,
20 showing my evidence markers 4 through 9, which are
21 generally 4 to 6 inches each of aluminum conductor
22 breach, evidence markers. As well as the subject tree in
23 the photograph as well.

24 Q. What is the red marker there in the middle?

25 A. The red indicates an advancing indicator.

26 Q. So as a fire investigator, what are you

1 learning, or how are placards 4 through 9 and the red
2 flag helping you to determine where and why this fire
3 started?

4 A. The red flag was determined based on our origin
5 and cause investigation finding indicators coming through
6 a general origin area and a specific origin area.
7 Showing where the fire came from helps us determine where
8 the fire came from.

9 The, within that area we're looking for any
10 abnormalities, be it wire, ammunition, shell casings,
11 anything that should not be in that location. So the
12 indicators -- I'm sorry -- the evidence markers show
13 those aluminum conductor pieces, because on a normal
14 operating conductor line, we should not have those in
15 those locations. So those marked the positions of where
16 those were and in relation to the advancing fire showing
17 the fire pattern at that given location.

18 Q. When you talk about aluminum conductor pieces,
19 describe for us what you mean.

20 A. They resemble the same characteristics as the
21 conductor line that was flowing overhead. And they were
22 approximately 4 to 6 inches in length, and were not a
23 metal, per se, they were aluminum in their type.

24 Q. So in the background up here we can see some
25 more green and some pink. Do you recall what those
26 denote?

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A. Yes.

Q. What's that?

A. If I'm looking at it correctly, the green here shows the location of a strike mark on the subject tree, as well as this green mark to the left of the frame, further up, to the left side of the tree, showing another strike mark, that we identified as a strike mark, of a conductor against the tree.

Q. So when we're talking about subject tree, this tree that's laying on the ground that runs from top left corner to middle right all the way across, that's the subject tree you're talking about?

A. Correct.

Q. You said that those are strike marks?

A. Correct.

Q. What do you mean by "strike marks"?

A. Identify the term as a strike mark as an area where the tree itself contacted a, an electrical source and left a remaining charring on the tree.

(Grand Jury's Exhibit 86 introduced.)

Q. So now I'm showing you what's been marked as Exhibit 86 for identification. Do you recognize this photograph?

A. Yes, I do.

1 Q. What does the photograph marked as 86 show?

2 A. This shows the area I determined, as I referred
3 to as strike No. 1. It shows an area where the tree has
4 a remaining burn mark, for lack of a better term, showing
5 the charring on the tree from, we hypothesize, contacting
6 an electrical source, an electrical source that was, had
7 current flowing.

8
9 (Grand Jury's Exhibit 87 introduced.)

10
11 Q. Now, showing you what's been marked as Exhibit
12 87. Do you recognize what's depicted in 87?

13 A. Yes.

14 Q. What is depicted in 87?

15 A. This is what I referred to as strike No. 2.
16 This is a second area a tree contacted, we hypothesize,
17 contacted the electrical conductor line in the 1101 12 kV
18 Big Bend circuit, showing multiple marks of demarcation
19 on the top left. You can see an area where the actual
20 bark of the tree was removed in a circular fashion and a
21 charring, slash, indentation in the area of the tree; as
22 well as on this underside of the tree, another area that
23 we found that was determined to be from an electrical
24 current.

25 Q. Now, you said you found little pieces of the
26 electrical conductor, aluminum electrical conductor?

1 A. Correct.

2 Q. In the general area of origin of the fire?

3 A. Correct.

4 Q. Did you collect the rest of the electrical
5 conductors?

6 A. Yes.

7

8 (Grand Jury's Exhibit 88 introduced.)

9

10 Q. Looking at 88, the photograph marked as 88, can
11 you tell us what we're looking at in this photograph?

12 A. This is a further analysis of the PG&E
13 conductor collected from that site. One's identified as
14 the west-north, so the conductor on the west side of the
15 mountain, north of where the break we identified for the
16 conductor was broken; as well as the east-north, so the
17 conductor on the east side of the mountain on this scene,
18 north of the break where the conductor was broken.

19 Q. Why did you collect those two conductors?

20 A. We collected those conductors as evidence to
21 determine if those conductors, in fact, were a cause of
22 the Camp B Fire, contributed to the cause.

23

24 (Grand Jury's Exhibit 89 introduced.)

25

26 Q. Exhibit No. 89. Do you recognize Exhibit 89?

1 A. Yes.

2 Q. What is Exhibit 89?

3 A. Exhibit 89 shows further analysis of those two
4 conductors, west-north and the east-north. While in that
5 scene of Camp B origin, I measured the distance from the
6 PG&E pole No. 2 to the subject tree, and it was 33 feet.

7 In this photograph, it shows areas of
8 demarcation on those conductors that we determined to be
9 irregular in our analysis of this on that day.

10 Q. What do you mean "areas of demarcation"?

11 A. Areas of conductor that did not seem to have
12 burned, to have been burned by the fire passing through.
13 It was areas of irregular, that seemed irregular, that
14 looked like possible arcing locations. That's why we
15 have -- I located the Post-it note here, the note here as
16 33 feet. That is the measurement from the end of the
17 conductor to this location. So the south end of the
18 conductor.

19 Q. And there's a second note that says 30 feet?

20 A. And the 30 feet is another area we determined
21 there was irregularities.

22

23 (Grand Jury's Exhibit 90 introduced.)

24

25 Q. Exhibit No. 90, do you recognize?

26 A. Yes.

1 Q. What does this show?

2 A. Exhibit No. 90 represents the west-north
3 conductor laid out, showing the particular areas we
4 identified as possible arcing locations to be looked at
5 by a metallurgist.

6 Q. What do you mean by arcing location?

7 A. Possible areas where it was determined -- that
8 we hypothesized the conductor looked like it had been
9 arced, or had arced to something.

10 Q. Okay. What made you think that it had arced,
11 the conductor had arced?

12 A. There were deviations in the steel core
13 conductor that showed indentations and pooling of metal
14 that appeared to be, from our expertise, arcing that
15 needed to be further analyzed -- or analyzed, sorry,
16 by a metallurgist to determine, in fact, if it was
17 arcing.

18 Q. Now, going back, we were looking at the
19 pictures that showed the placards, I think it was 5
20 through 9, which you said were 3- to 4-inch pieces of
21 aluminum conductor that you found; correct?

22 A. Correct.

23 Q. Looking at the west-north conductor here laid
24 out, is there evidence that there's pieces of this
25 conductor missing?

26 A. Yes.

1 Q. Walk us through that.

2 A. There are pieces of conductor missing in this
3 area underneath the conductor writing, as well as further
4 areas along that wood piece that, in normal senses, would
5 have aluminum conductor wrapped around a steel core
6 following the whole length of the conductor. However,
7 there are some missing.

8 Q. I am going to blow this up a little bit. Won't
9 let me blow it up. Looks like down here, if you walk
10 through this, you can see broken ends all over the place;
11 is that correct?

12 A. Correct.

13 Q. And going both ways?

14 A. Correct.

15 Q. How does that play into your hypothesis as to
16 what happened?

17 A. The aluminum conductor pieces are another piece
18 of data that, looking at the overall totality of the
19 investigation, supports something striking the conductor
20 line and the -- possibly arcing, the conductor line
21 arcing to a foreign object and having aluminum conductor
22 pieces fall to the ground.

23

24 (Grand Jury's Exhibit 91 introduced.)

25

26 Q. All right. Number 90 -- or 91, I'm sorry.

1 Exhibit 91, do you recognize?

2 A. Yes.

3 Q. What is Exhibit 91?

4 A. Exhibit 91 is another photograph of the
5 west-north conductor showing the area of demarcation that
6 we identified that needed to be further analyzed by a
7 metallurgy, just particularly this area to the right of
8 the screen.

9 Q. Why is that area significant, in your mind?

10 A. It is a, an area that was not, from our
11 perspective, an area that was due to heat of the fire.
12 The demarcations on the steel core conductor with the
13 aluminum conductor, in my expertise, because it was
14 possible arcing, to be identified later by a
15 metallurgist.

16 In this area, the previous photograph depicting
17 the distance, particularly in pole No. 2, was the same
18 area that if the subject tree fell would have fallen onto
19 the line.

20 Q. Okay. Explain that to us, how you came to that
21 conclusion.

22 A. The end of the conductor south of the break on
23 the west side was at the location of pole No. 2. That's
24 where the conductor was broken. Having that, I measured
25 from that pole No. 2 to the area of the subject tree that
26 was laying on the ground, which was approximately 33

1 feet. Multiple areas, both of those conductors in that
2 33- to 30-foot range showed indications of possible
3 arcing, such as this, meaning the subject tree. There
4 was a possibility the subject tree fell on the conductor
5 lines at those locations.

6
7 (Grand Jury's Exhibit 93 introduced.)
8

9 Q. All right. Exhibit 93.

10 A. Exhibit 93 shows the east-north conductor. So
11 this is the second conductor. The previous photographs
12 were west-north. This would be the east-north conductor
13 from the same 1101 Big Bend 12 kV line that was running
14 parallel with the conductor we just looked at.

15 This is showing the area 33 feet, as well from
16 the end of that separate conductor an area where the
17 subject tree would have fell on the conductor line.
18

19 (Grand Jury's Exhibit 94 introduced.)
20

21 Q. Exhibit 94?

22 A. Exhibit 94 is showing that same east-north
23 conductor that is an area we identified as irregular, the
24 possible arcing that needed to be looked at by a
25 metallurgist for further examination.

26 Q. What suggests possible arcing to you in this

1 photograph?

2 A. The middle of the photograph, this line here,
3 is the steel core that serves as support for the aluminum
4 conductor, which wraps around the steel core. But then
5 there is an indentation in a different coloring, more
6 like a gold coloring, in this photograph that, in my
7 expertise, shows possible arcing on the aluminum
8 conductor, arcing, for an outside foreign object, arcing
9 to the steel core of the conductor.

10 Q. So this line running right down the middle, the
11 straight line, it's not woven, you're saying that's the
12 steel core?

13 A. Correct.

14 Q. And we're looking at quite a bit of deformation
15 and discoloration in this small area?

16 A. Correct.

17 Q. As opposed to the right and to the left of the
18 deformation?

19 A. Correct.

20 Q. What does the deformation of the steel in that
21 location by itself tell you?

22 A. It tells us that there's possible arcing due to
23 the pooling of the metal on this side and the indentation
24 of the metal on the interior.

25 Q. And the aluminum lines themselves, the strands
26 of aluminum conductor, what about those, what do they

1 tell you?

2 A. They can tell us there was some deformation and
3 some pooling on the ends, but I would have to refer to
4 the metallurgist's report and her expertise to determine
5 that.

6 Q. And you're referring to this as "pooling" or
7 "pulling"?

8 A. I was referring to this conductor here as more
9 of a pooling, pool, pooling of liquid.

10 Q. Okay. Like melting?

11 A. Correct.

12 Q. All right. So you've walked all around, you've
13 observed the indicators all around, you've looked at the
14 electrical. What are you doing next?

15 A. We are gathering those facts, gathering all
16 that information and analyzing all the information and
17 putting it all together to determine the actual cause of
18 the fire.

19

20 (Grand Jury's Exhibit 95 introduced.)

21

22 Q. All right. Let's move on to Exhibit 95. What
23 are we looking at in Exhibit 95?

24 A. Exhibit 95 shows a photograph I took looking
25 south with some added graphics that I added showing the
26 location of the strike No. 1 I identified earlier. It's

1 the first area struck by the PG&E conductor line. As
2 well as strike No. 2 on the right side of the screen in
3 green, showing the second strike mark. Again, the PG&E
4 conductor.

5 The illustration shows the fire damage from
6 strike No. 1 to strike No. 2. Showing there was charring
7 in the areas depicted as red on the photograph. Charring
8 of the subject tree, showing an area where fire was
9 burning for a prolonged period of time, compared to the
10 rest of the tree.

11 And based on my training and experience, this
12 is a suspended fuel. The limbs on the subject tree kept
13 it up off the soil. Typically, on a suspended fuel of
14 this type, as the fire passes through, it doesn't burn
15 one side as much as the other. It passes underneath the
16 tree and burns the backside of the fuel.

17 For this, I was attempting to show the charring
18 on this side, and another photograph will show the
19 charring on the other side, are relatively equal to
20 another. Meaning the fire, this charring was not caused
21 by fire passing through. In fact, my hypothesis was it
22 was caused by an ignition of strike No. 1 and ignition of
23 strike No. 2, and that fire burning in between the two as
24 the electrical conductivity ran between the two parts.

25 Q. Now, in the foreground of the picture down in
26 the bottom we have placards 4, 5, 6, and 7. What are

1 those?

2 A. Those are the same placards we identified
3 earlier showing 4- to 6-inch pieces of aluminum
4 conductor.

5
6 (Grand Jury's Exhibit 96 introduced.)
7

8 Q. Let's move to know 96. Explain to us what
9 we're looking at in 96.

10 A. 96 is a photograph looking northwest of the
11 same subject tree as the previous photograph. This is
12 the backside of that same photograph, showing the
13 location of the strike No. 1 on the right side of the
14 screen in green, strike No. 2 left side of the screen in
15 the green, and the illustration I added of red showing
16 the charring on this side compared relatively to no, or
17 little charring on the others away from the strike. And
18 this charring is fairly similar to the same charring I
19 showed in the previous photograph. As stated earlier,
20 typically on suspended fuels you'll have charring only on
21 one side of the fuel, where this has it on both sides.

22 Q. In the foreground, stake with a pink ribbon on
23 it. What does that mean?

24 A. That is an area that our LIDAR crews were using
25 as a reference point.
26

1 (Grand Jury's Exhibit 97 introduced.)

2

3 Q. Okay. All right. On to the diagram marked as
4 97. Explain Exhibit 97 to us.

5 A. Exhibit 97 is a depiction I created showing the
6 overall basic layout of the Camp B origin scene, showing
7 the pole No. 1, the top north side of the scene on top of
8 the geographical bowl, with pole No. 2 being the pole
9 that was fallen near the origin of the scene, and pole
10 No. 3.

11 These two conductors are identified for ease
12 of, for ease of the report and ease for everybody else,
13 as the west-south conductor, conductor A; west-north
14 conductor -- so north of the break, south of the break --
15 conductor B; east-south, conductor C; and east-north,
16 conductor D.

17 Within that area we have Concow Road. And Rim
18 Road is up here, going that way.

19 The subject tree is depicted in this photograph
20 at its location comparatively to pole No. 2. And this is
21 another tree that was down in that area.

22 Q. So the conductor lines that we were looking at
23 earlier that you pulled out and you measured were the
24 west-north and the east-north; correct?

25 A. Correct.

26 Q. And when you say you measured, you were

1 measuring from pole No. 1 to the subject tree?

2 A. No.

3 Q. Okay. Explain that.

4 A. The measurements were from the -- if I can
5 reference my report?

6 Q. Go ahead. I know we talked about, quite a bit
7 about the 33 feet. I want to make sure that we
8 understand how that measurement came about and what it
9 represents. Go ahead.

10 A. The 33 -- 33 feet, I'm sorry, measured from the
11 edge of the conductor, from the south end of the
12 conductor to the north, because the actual line of the
13 break was at pole No. 2.

14 Q. Okay.

15 A. So we hypothesized that this line here was
16 actually connected close to pole No. 2.

17 Q. Okay. So you're talking about the west-north
18 conductor and the west-south conductor, your hypothesis
19 was that that was connected at pole No. 2?

20 A. Correct.

21 Q. And what about the east-south conductor and the
22 east-north conductor?

23 A. That was the same measurement. We measured
24 from the edge of the conductor, from the south edge of
25 the conductor to the north, based on the theory that
26 those, these were severed near the pole No. 2.

1 The illustration does not show a good depiction
2 of the -- when lines are held on a pole, they're tight
3 and taut, so there's going to be -- on the ground,
4 they're going to be a lot more loose than, can be pulled
5 back this way due to the lines being on the ground and
6 not taut in the air.

7
8 (Grand Jury's Exhibit 98 introduced.)
9

10 Q. All right. So let's move on to the diagram
11 marked as Exhibit No. 98. Do you recognize Exhibit 98?

12 A. Yes.

13 Q. Did you come up with Exhibit 98?

14 A. I did.

15 Q. Explain for us Exhibit 98, please.

16 A. Exhibit 98 shows a depiction I created showing
17 the at-scene reference points I created. As part of the
18 fire origin and cause determination, we create reference
19 points, which are points I created, that can be used for
20 reference later at an undetermined date to identify
21 certain locations of items within the scene.

22 So I identify RP-1, reference point 1,
23 reference point 2. And from those points measured with a
24 ruler -- not with a ruler -- with a measuring tape the
25 distance from each reference point to all the numbered
26 locations on here. So this just depicts those numbers

1 and locations.

2 It also shows more of an, in more detail, the
3 overall scene. Showing the subject tree; brown, light
4 brown, line running from bottom right towards the top
5 left. Showing strike No. 1, strike No. 2, and the
6 overall condition of the tree.

7 It's also showing conductors A to B and C to D;
8 as well as Concow Road, with the location of the 1996
9 Dodge pickup, and with that location upon arrival; as
10 well as pole No. 2 in the middle of the screen, with No.
11 1 in the middle being the pole No. 2 stump that was
12 remaining after the pole No. 2 fell to the ground.

13 So it's just an accurate, trying to be an
14 accurate representation of the reference points on the
15 overall scene investigation.

16

17 (Grand Jury's Exhibit 99 introduced.)

18

19 Q. All right. Exhibit 99. Do you recognize 99?

20 A. Yes.

21 Q. What is 99?

22 A. 99 references the GPS coordinates I took of the
23 evidence locations on the origin of the Camp B Fire.
24 Very faintly in the photograph you can see the lines here
25 that appear to be the actual conductor line that was
26 through the area at the time of this satellite image.

1 Q. So let's back up on that. So this is a Google
2 Earth satellite image taken before the fire --

3 A. Correct.

4 Q. -- that you were able to obtain online?

5 A. Correct.

6 Q. Okay. So go ahead.

7 A. So it shows possible, or possible location of
8 the conductor, as well as the subject tree stump, and all
9 the evidence markers I identified at scene. And I took
10 those reference points using my Garmin GPS handheld
11 device.

12 Q. And how did you put those in this photograph?

13 A. From my handheld device that is plugged into a
14 computer via USB, it is download, the reference points or
15 the GPS locations, are downloaded and transferred to a
16 file which can be uploaded to Google Earth and transposed
17 into a satellite image.

18 Q. All right. So let's walk through this from top
19 to bottom.

20 Up here this says E10, G20A tree stump?

21 A. Correct.

22 Q. What does that reference?

23 A. E10 references evidence item No. 10. G20A is
24 how I determined areas of interest before I identified
25 evidence markers to determine areas to be looked at
26 further early on in the investigation. That is the

1 location of the subject tree stump.

2 Q. And what is E11, G19A?

3 A. That is the subject tree itself. The end --
4 I'm sorry, the butt end of the subject tree, eastern end.

5 Q. Okay. So just to make it clear, the two
6 parallel faint lines that start in the upper left side of
7 this photograph and run through all the way to the middle
8 right side, that's what you're referring to as the
9 conductor?

10 A. That's what I hypothesize as the PG&E
11 conductor.

12 Q. Okay. And, let's see, do you know what E34 and
13 E33 are?

14 A. Those are conductors, conductor pieces taken at
15 the northern end of the origin area. I'm sorry, they
16 are, they are a continuation of the two conductors;
17 however, they were identified as separate evidence
18 numbers due to the fact that the, they were disconnected
19 for -- they were severed at certain points, so they
20 became their own numbers in themselves.

21 Q. All right. And E3 and E2, what do those two
22 represent?

23 A. E3 and E2 reference the west-north conductor
24 and the east-north conductor.

25 Q. And E13 and E47?

26 A. I would have to reference my report.

1 Q. Go ahead.

2 A. I actually don't have that in this version of
3 the report. I have it in my supplemental investigation
4 report.

5 Q. Okay. How about the E9, E8, 16, this whole
6 kind of grouping?

7 A. The 4 through 7 is the aluminum conductor we
8 identified earlier in the photograph, as well as 8 and 9.
9 The remaining evidence placards are multiple items from
10 the PG&E power pole No. 2 to, to electrical components at
11 the scene to old type PG&E hardware that we found at the
12 scene.

13 Q. All right. So we know E10 is the tree stump,
14 and E11 -- the subject tree stump, and the E11 is the
15 broken end of the subject tree?

16 A. Correct.

17 Q. Which way is that tree facing in terms --

18 A. The tree is facing in a southwest direction.
19 So on the screen from the left to the right. Horizontal
20 -- or diagonal. Sorry.

21 Q. Basically a diagonal here from approximately
22 E11 to the area of E9, E16, somewhere in there?

23 A. I believe E20 is the end of this.

24 Q. Okay. So in this direction here?

25 A. Correct.

26 Q. What's E24?

1 A. That is the pole, PG&E pole No. 2, stump.

2 Q. And E21?

3 A. I would have to reference my supplemental
4 reports for accuracy.

5

6 (Grand Jury's Exhibit 100 introduced.)

7

8 Q. Okay. All right. Let's see if we can put this
9 all together. Let's go on to No. 100. Do you recognize
10 100?

11 A. Yes.

12 Q. What is 100?

13 A. 100 is a sketch of the Camp B origin scene
14 taken from an overall photograph, with depictions I
15 created on my computer, showing the overall scene.
16 Showing the larger circle as the general origin area I
17 identified earlier, that we came to the location of the
18 fire possibly starting, to the specific origin area, the
19 blue circle, the smaller circle, showing a more advanced
20 area as we worked from the general origin area to more
21 specific area.

22 With the subject tree stump on the right side
23 of this photograph depicted with a narrative and subject
24 tree bottom. Referring to the bottom of the subject
25 tree.

26 The top of the subject tree, with that

1 depiction.

2 The location of PG&E pole No. 2.

3 The crossmember, we identified as a piece of a
4 crossmember that goes perpendicular to the pole of the
5 location here, with the PG&E pole No. 2 stump at this
6 location.

7 This identifies the A conductor, the west-south
8 conductor, the conductor west of the scene and south of
9 the break; as well as the conductor C, the east-north
10 conductor, the conductor east of the scene but north of
11 the break; as well as showing our fire indicators, fire
12 patterns observed at the scene.

13 Showing the red arrows as advancing fire
14 vectors. So a vector, comparative indicator -- a fire
15 indicator shows on a certain fuel what the fire was doing
16 at that particular location. Where a fire vector shows
17 the overall flow of what the fire was doing at that
18 point.

19 So the fire vector advancing fire away from the
20 specific origin area, general origin area going to the
21 southwest; with lateral indicators indicated by the
22 yellow upside down V showing fire direction on the right
23 side of the photograph to the fire moving to the
24 northwest, away from the specific origin area; with the
25 left side of the picture with fire flowing to the
26 southwest and south, away from the specific origin area.

1 The blue U's show the backing fire vector. So
2 areas where the fire is backing at a slower rate, has
3 less intensity away from the specific origin area. So we
4 have that on the right side of the photograph, working
5 with the fire backing to the northeast; as well as on the
6 left side of the photograph the fire backing to the
7 southeast away from the ignition area and specific origin
8 area.

9 The ignition area identified by the red circle
10 with a red X through it was an area determined as the
11 actual ignition area, where the actual fire started, the
12 first sign of any fire due to the subject tree contacting
13 the east-north conductor, conductor C, and creating a
14 strike mark, strike No. 1, at the ignition area.

15 Q. So what do the orange lines running through the
16 middle left to right depict?

17 A. The orange lines on the left side of the screen
18 is the conductor A. So it's the conductor on the west
19 side of the scene, south of this break. And on the right
20 side of the photograph is the east-north conductor,
21 conductor C. Its conductor line on the east side of the
22 scene that was on the north side of the break.

23 The other conductor that was at the scene was
24 not in this photograph. It was further away to the right
25 or left respectively as it coiled back.

26 Q. So let's go back to your five hypotheses.

1 Let's work them backwards.

2 You said the No. 5 hypothesis had to do with
3 the 1996 pickup truck; correct?

4 A. Correct.

5 Q. And is the pickup truck shown in that
6 photograph?

7 A. Correct. The pickup, the 1996 Dodge pickup, is
8 on Concow Road facing north on the left bottom of the
9 screen.

10 Q. So you said as you're working through these
11 investigations, you're constantly testing your
12 hypothesis?

13 A. Correct.

14 Q. And trying to disprove your hypothesis?

15 A. Correct.

16 Q. Were you able to disprove the hypothesis
17 regarding the 1996 Dodge pickup as a potential origin
18 point?

19 A. Yes, I was.

20 Q. How so?

21 A. First off, in our origin and cause
22 investigation with the fire indicators of fire coming
23 from the ignition area and back indicators coming away,
24 working to the east; as well as all the other indicators,
25 advancing, lateral, and backing indicators surrounding
26 the ignition area showing the fire did not originate at

1 the Concow Road or at the 1996 Dodge pickup; as well as
2 the cumulative facts of the images from the lookout
3 camera, the Flea Mountain lookout camera showing the fire
4 started in that area; as well as the times identified
5 through data, PG&E data, showing the, a fault occurring
6 at that site, that area; as well as the reclosure opening
7 at that certain time all helped to rule out the 1996
8 Dodge pickup as a possible cause, as well as interviews
9 with the owner and driver of the 1996 Dodge pickup.

10 Q. So separate from and not including any
11 interviews with the owner of that pickup, you were able
12 to disprove the hypothesis of the pickup started the
13 fire?

14 A. Correct. There's also a video posted of --

15 Q. Okay. Let's not talk about that. Let's talk
16 about what you were able to do with the actual physical
17 evidence on scene.

18 A. Correct. The fire indicators alone allow us to
19 disprove the 1996 Dodge pickup. We just took other
20 precautions, other avenues to further disprove.

21 Q. Okay. Give me a second. I'm trying to find
22 something in the report real quick.

23 All right. Going back to your hypotheses. No.
24 4 was the subject tree fell during the fire when the fire
25 passed through, struck the conductor lines causing
26 ignition, but only after the fire was already at the

1 location.

2 How did you disprove -- or did you disprove
3 that hypothesis?

4 A. Yes, I disproved that hypothesis.

5 Q. How so?

6 A. Multiple factors, including the Flea Mountain
7 Lookout Camera 5 showing a fire occurring at a given time
8 in relation to the reclosure data showing the reclosure
9 opening the circuit on the Big Bend 1101 12 kV line at a
10 given time; as well as the fire indicators, most
11 importantly, at scene showing fire originating from the
12 ignition area identified in this photograph.

13 Q. Okay. Hypothesis No. 3. The subject tree fell
14 prior to the fire, struck de-energized lines, with no
15 ignition, but left broken conductors, and the fire
16 resulted from some other source.

17 Were you able to disprove that hypothesis?

18 A. Yes.

19 Q. How so?

20 A. This was disproved by, again, first and
21 foremost, our fire indicators showing the strike No. 1
22 strike mark on the subject tree, as well as strike No. 2,
23 showing patterns of charring and burning similar to a hot
24 iron on a wood substance, showing that there was
25 electrical conductivity in that line at the time of
26 contact; as well as the irregularities on the PG&E

1 conductor line. Quickly, this proves that the fire was
2 -- that the subject tree struck the energized lines.

3 Q. Hypothesis No. 2. The subject tree fell prior
4 to the fire, struck the lines creating ignition against
5 the tree. Pole No. 2 stayed in place, lines separated
6 and arced to the ground at contact, creating multiple
7 ignition sources for the lines contacting the ground.

8 Were you able to disprove that hypothesis?

9 A. I wasn't able to fully disprove that
10 hypothesis.

11 Q. Were you able to disprove parts of that
12 hypothesis?

13 A. Yes, I was.

14 Q. Which parts?

15 A. The parts I was able to disprove was that there
16 were multiple ignitions created by the conductor falling
17 and arcing to the ground at the point where the conductor
18 severed ends contacted the ground. This was disproved by
19 our origin and cause investigation showing the fire
20 originating from the ignition area, strike No. 1; as well
21 as the fact that the strike No. 1 was the first area
22 contacted by the subject tree, which creates any ignition
23 after that. Not the cause of the fire, the cause of the
24 fire in reference to that as secondary. So the first
25 ignition of the Camp B Fire was the strike No. 1 of the
26 subject tree, so anything after that was secondary.

1 Q. Finally, hypothesis No. 1, subject tree fell
2 prior to the fire, struck the PG&E conductor lines,
3 creating ignition against the subject tree, leaving PG&E
4 pole No. 2 in place. The reclosure opened the circuit
5 with no other ignitions occurring. The conductor lines
6 fell to their resting location.

7 Were you able to disprove any parts of
8 hypothesis No. 1?

9 A. No.

10 Q. Were you able to prove the parts of hypothesis
11 No. 1?

12 A. Our investigations don't work as proving that,
13 proving causes, but we work at disproving. And that was
14 the -- we were not able to disprove any of that
15 possibility and -- but disprove all the other
16 possibilities that we referenced, therefore, that was the
17 cause of the fire.

18 Q. Based upon your investigation, do you have an
19 opinion as to where the Camp B Fire started?

20 A. Yes.

21 Q. What is that opinion?

22 A. My opinion is that the Camp B Fire started in
23 the area near the intersection of Concow Road, cross of
24 Rim Road, more accurately west of Concow Road and south
25 of Rim Road, at the area near, as I labeled, "PG&E pole
26 No. 2," where the Ponderosa pine tree struck the 1101 Big

1 Bend 12 kV electrical circuit causing ignition against
2 the tree at the strike No. 1 mark. That resulted in fire
3 spreading from that location to the remaining area.

4 Q. We're referring to Exhibit 100, the overall
5 diagram?

6 A. Correct.

7 Q. Do you have an opinion as to the cause of the
8 Camp B Fire?

9 A. The cause of the Camp B Fire was a Ponderosa
10 pine tree, shown in this illustration, breaking from its
11 trunk, tree stump depicted on this illustration,
12 contacting the PG&E conductor line; therefore, the cause
13 of the fire was electrical from the PG&E conductor line
14 1101 Big Bend circuit.

15 Q. And upon what do you base that opinion?

16 A. That is based on our origin and cause
17 investigation, all the fire indicators at scene, the PG&E
18 data, referencing the Electrical Incident Report, video
19 from the Flea Mountain Lookout Camera No. 5, and all the
20 data and research compiled during our investigation.

21 Q. So based upon your opinion that the subject
22 tree, a Ponderosa pine, fell onto the live electrical
23 lines, the Big Bend 1101 -- 1101 B? -- or 1101 line --

24 A. Big Bend.

25 Q. -- did you request further assistance in your
26 investigation?

1 A. Yes.

2 Q. What type of assistance?

3 A. We requested assistance from a metallurgist to
4 analyze the conductor line itself, from an arborist to
5 analyze the subject tree and condition of the subject
6 tree itself. That's it.

7 Q. Forgot one. Can't forget Mr. Nolt.

8 A. Our electrical, Mr. Jim Nolt, yes.

9 Q. All right. So why did you summon an arborist?

10 A. Based on the cause of the fire being from the
11 Ponderosa pine tree falling and contacting the conductor,
12 we wanted to determine the condition of that tree to know
13 why that tree fell.

14 Q. Why is the condition of the tree relevant?

15 A. The condition of the tree is relevant to
16 determine -- first and foremost, to prevent this from
17 happening again in the future. To determine better ways
18 of analyzing the tree as in tree stance to prevent any
19 electrical-caused fires, or any fires for that matter.
20 To also identify any potential criminal wrongdoing. And
21 to determine why the actual tree fell.

22 Q. Why is the condition of the tree important to
23 determine a potential criminal liability?

24 A. If the subject tree was identified as dead --
25 as to reason, if the subject tree was identified as dead
26 or should have been identified as dead by someone

1 responsible with surveying the trees and removing those
2 trees, then that would play a factor into, that would
3 play a factor into who could be responsible for ignition
4 of that tree.

5 Q. All right. Let's back up. Is there statutory
6 law, to your knowledge, that requires a utility to
7 inspect and clear trees around power lines?

8 A. Yes.

9 Q. And what is that statute?

10 A. That is the California Public Resource Code
11 4293.

12 Q. Does 4293, in your experience and training,
13 apply to PG&E?

14 A. Yes.

15 Q. And why is the condition of the tree important
16 for 4293?

17 A. It is part of elements that are included in
18 that possible crime.

19 Q. Do you have a copy of 4293 with you?

20 A. I have it in my report.

21 Q. Could you read us the relevant portions of
22 California Public Resource Code section 4293.

23 A. Yes.

24 "Except as otherwise provided in sections 4294
25 through 4296, inclusive of any person that owns,
26 controls, operates, or maintains any electrical

1 transmission or distribution line upon any mountainous
2 land or on forest-covered land, brush-covered land, or
3 grass-covered land shall, during such times and in such
4 areas as are determined to be necessary by director for
5 the agency which has primary responsibility for the fire
6 protection of such areas, maintain a clearance of the
7 respective distances, which are specified in the section,
8 all directions between all vegetation and all conductors
9 which are carrying electrical current.

10 And A --"

11 Want me to keep going?

12 Q. No, let's skip down to the more relevant stuff,
13 which would be the second paragraph of 4293. The end of
14 the second line starts with "dead."

15 A. "Dead trees, old decadent or rotten trees,
16 trees weakened by decay or disease, and trees or portions
17 thereof that are leaning toward the line which may
18 contact the line from the side or may fall on the line,
19 shall be felled, cut, or trimmed to remove such hazard."

20 Q. So 4293 creates a positive duty by a utility
21 such as PG&E to clear dead or dying trees that
22 foreseeably may fall on the line?

23 A. Correct.

24 Q. Based upon all of your measurements, based upon
25 all of your observations out at the origin point of the B
26 Fire, Camp B Fire, not assuming any condition of the tree

1 itself, but was it foreseeable, was it possible for that
2 tree to fall on the lines?

3 A. Based upon the angle of the tree?

4 Q. Based upon everything.

5 A. Well, it happened, so it was possible.

6 Q. Right. Were you able to determine how tall
7 that tree was?

8 A. I believe it was referenced in the
9 supplemental, supplemental portion of my report.

10 Q. Were you able to determine how far that tree
11 stood from the power lines?

12 A. In a relative, relatively within my report,
13 yes.

14 Q. Okay. And the power lines were within the
15 distance within the height of the tree?

16 A. Correct.

17 Q. Okay.

18 I think that's all I got.

19 A. Okay.

20 (Grand Jury Foreperson and Counsel confer.)

21 Q. (By MR. NOEL) All right. We had some
22 questions from the jurors.

23 First, let's go back to Exhibit 81. There we
24 go.

25 First question is do you know who cut the
26 conductor in Exhibit 81, and where in relation to the

1 area of Camp B Fire was this cut?

2 A. No, I do not know who cut these, this conductor
3 in particular. This conductor was the same flow of
4 conductor as the origin of the Camp B Fire. However,
5 this was the conductor that was suspended over Concow
6 Road, north -- sorry -- south of the Camp B Fire scene
7 over Concow Road.

8 Q. Considering the conclusions you have reached,
9 do you believe that both Camp B and the Camp Fire share a
10 single primary failure of PG&E equipment?

11 A. I don't know if I can answer that.

12 Q. Okay. You don't know. You concentrate on Camp
13 B; correct?

14 A. Correct.

15 Q. You weren't one of the investigators working on
16 the Camp Fire itself?

17 A. No, I was not.

18 Q. If the answer to question 2 above is negative,
19 do you believe -- well, let's -- do you believe that the
20 two fires were entirely coincidental on that morning?

21 A. No. Coincidental is a relative term.

22 Q. Right.

23 A. No. My findings on the Camp B stand that the
24 Camp B was caused by that electrical conductor and the
25 tree striking that. That's what I derived.

26 Q. And I think a better term would be separate,

1 that Camp A and Camp B -- or Camp and Camp B were
2 completely separate, just happened to occur on the same
3 morning?

4 A. Correct.

5 Q. Do you believe that Camp, the Camp Fire
6 influenced the ignition of the Camp B Fire?

7 A. No.

8 Q. Do you believe that the Camp B Fire influenced
9 the Camp A -- or the Camp Fire?

10 A. No.

11 Q. Do you -- again, not including any hearsay in
12 which you've heard from anybody else, do you have an
13 opinion as to what caused the subject tree to fall?

14 A. I would have to refer to our experts.

15 Q. Okay. And you said that a arborist came out to
16 examine the tree?

17 A. Correct.

18 Q. Do you recall the name of that person?

19 A. Joe McNeil.

20 Q. So just on your own, you don't have an opinion
21 as to why the tree fell?

22 A. I'd have to refer to the matter, experts on
23 that.

24 Q. You examine the breakage point of the tree?

25 A. Correct.

26 Q. I guess, just to go through a few things

1 possible, did you find bullet holes where the tree broke?

2 A. No. And we examined the ignition, the general
3 origin area and specific origin area for any ammunition
4 casings, any other abnormalities, and used a metal
5 detector, and did not find any of that type.

6 Q. Did you find any evidence of a chain saw on
7 the, at the base of the subject tree where it broke?

8 A. No.

9 Q. Or an ax?

10 A. No.

11 Q. All right.

12 Anything else?

13 I think that's it for this witness.

14 GRAND JURY FOREPERSON: Okay. Captain Lohse,
15 I'd like to read you the admonishment again.

16 Okay. Captain Lohse, you are admonished not to
17 discuss or disclose at any time outside of this jury room
18 the questions that have been asked of you or your answers
19 until authorized by the Grand Jury or the Court. A
20 violation of these instructions on your part may be the
21 basis for a charge against you of contempt of court.
22 This does not preclude you from discussing your legal
23 rights with your own attorney.

24 Captain Lohse, what I have just said is a
25 warning not to discuss this case with anyone except the
26 Court, your lawyer, or the district attorney. Do you

1 understand?

2 THE WITNESS: Yes.

3 GRAND JURY FOREPERSON: Thank you.

4 THE WITNESS: Thank you.

5 GRAND JURY FOREPERSON: Thank you for your
6 time.

7 THE WITNESS: You're welcome. Thank you.

8 [DISCUSSION OMITTED.]

9 GRAND JURY FOREPERSON: (WITNESS #8), before
10 you have a seat, would you raise your right hand to be
11 sworn, please.

12

13 (WITNESS #8)

14 having been called as a witness in
15 the matter now pending, having been first
16 duly sworn, testifies as follows:

17

18 THE WITNESS: Yes, ma'am.

19 GRAND JURY FOREPERSON: Thank you. Have a
20 seat, please.

21

22 EXAMINATION

23

24 BY MR. NOEL

25 Q. (WITNESS #8), for the record, could you state
26 your full name, spelling your last name.

1 A. (WITNESS #8), (SPELLING REDACTED) .
2 Q. By whom are you employed, (WITNESS #8)?
3 A. PG&E.
4 Q. In what capacity?
5 A. Transmission line crew foreman.
6 Q. How long have you been with PG&E?
7 A. Working on 23 years.
8 Q. Can you walk us through your career at PG&E and
9 what led you to your current position as a foreperson --
10 or foreman?
11 A. Well, it started probably in my childhood. I'm
12 third generation lineman. So my grandfather, my dad,
13 uncles, brothers. Moved from Spokane, Washington, down
14 here to California to take this job. I was 21 years old.
15 Started out in Oakland as a, as a grunt, if you will.
16 And then, you know, pretty much bottom of the food chain;
17 work your way up from there.
18 Did that for a while, until I could land an
19 apprenticeship. And then took an apprenticeship for the
20 company which lasted 36 months. Then after that time you
21 become a journeyman lineman.
22 So from there I worked down in the East Bay for
23 ten years, and then around 2006 we sold and moved up to
24 Paradise, and I took a job in Chico as a lineman.
25 Worked as a lineman there for a year and a half
26 maybe, and then started running a crew from there.

1 Q. How long have you been a foreperson?
2 A. I'm sorry?
3 Q. How long have you been a foreperson -- or
4 foreman? I'm used to referring to Madam Foreperson.
5 A. I could be a floor person.
6 See, probably 11 years now, 12 years, roughly,
7 as a floor person.
8 Q. (By MR. NOEL) And you said that you, you lived
9 up in Paradise?
10 A. Yes, sir.
11 Q. Did you lose your home in the Camp Fire?
12 A. Yes, sir.
13 Q. All right. What is your job as a -- describe
14 for us your job as a line foreman.
15 A. Construction line foreman. In that capacity, I
16 guess the easiest way to sum it up is that we in
17 construction do bigger projects versus maintenance
18 projects, which would be maybe daily stuff. Whereas -- I
19 guess the quickest way I could sum it up, maintenance
20 might change out one pole; construction comes through and
21 will change out all the poles on the street.
22 Q. Now, do you work in transmission or
23 distribution?
24 A. Transmission.
25 Q. And is there a difference? Is there a
26 distinction between transmission and distribution?

1 A. Yes.

2 Q. Has that always been the case in your career?

3 A. No.

4 Q. At some point did you work both distribution
5 and transmission?

6 A. Yes.

7 Q. When did that change?

8 A. I hired on in Distribution in Oakland and then
9 ended up taking a job in construction in Antioch. And
10 then I've been in what we call "GC," for PG&E is General
11 Construction. So General Construction is where I reside
12 now.

13 In General Construction, we've always done
14 transmission and distribution, collectively. Meaning
15 today -- or back then meaning, you know, I could be in a
16 splice box doing underground one day, and then the next
17 be in the 500 kV in the towers doing heavy rigging. So
18 we always did, we did both. But, roughly, around 2012,
19 if I remember right, GC was split up into two
20 organizations, which there's Transmission and
21 Distribution. Distribution does typically just
22 distribution. I'm in Transmission, whereas we still do
23 distribution only if it's on, serviced on the poles that
24 we're changing. So if we change out a transmission pole
25 and there's distribution underbuild, then we will handle,
26 you know, transferring that to the new pole.

1 Q. Now, you said, you started to talk about the
2 difference between maintenance and General Construction?
3 You said you do the big, you do the big jobs, they do the
4 small daily jobs. Can you define that a little bit
5 better for us?

6 A. Maintenance -- let's see, does that not define
7 that well enough? I'm not sure how else to answer that.

8 Q. Okay. You started to say, I guess, we change
9 out a whole line, whereas they may just change out one
10 pole.

11 A. Uh-huh.

12 Q. Does that about some up what you said?

13 A. Yes.

14 Q. What do you mean by change out?

15 A. Replace.

16 Q. Replace?

17 A. Replace a pole. Or if there was conductor,
18 like a capacity job, and we had to, needed to reductor
19 a circuit and take out smaller wire and put in bigger
20 wire, then that would atypically be a construction job.

21 Q. Okay. If you were just going up to change
22 insulators on one tower, that would be a maintenance job?

23 A. Could be.

24 Q. Okay. They wouldn't call in your crew just to
25 change out one?

26 A. Not typically, no.

1 Q. Okay. All right. So were you assigned to the
2 Butte County area in the end of 2012, early 2013?

3 A. 2006-ish. Yeah, about 2006 I came up here to
4 Butte County.

5
6 (Grand Jury's Exhibit 241 introduced.)

7
8 Q. All right. You have in front of you an exhibit
9 marked as 241. Do you see the tag in the top right-hand
10 corner?

11 Direct your attention to page 2, which is very,
12 very short. And the third line, it says "Work completed
13 by (WITNESS #8), line is back in service as of 1/31/13."
14 Do you see that part of it?

15 A. I do.

16 Q. All right. And Exhibit 241 is referencing the
17 collapse of the, of towers in 2012. This one
18 specifically is tower 187. Do you recall the tower
19 collapse in the end of 2012?

20 A. I do.

21 Q. Did you assist with the replacement, the
22 temporary replacement of that transmission line?

23 A. I did.

24 Q. Explain to us what your job was.

25 A. For the temporary replacement?

26 Q. Yes.

1 A. Okay. Or as we refer to it as a shoo-fly.
2 Q. Yes, sir. Explain that to us very briefly.
3 A. Briefly, some towers went down. I'm not a
4 hundred percent sure what took them down. Was -- heard
5 that a boulder took out a tower, which can cause a
6 multiple chain effect, which could explain the other
7 towers going down. But I wasn't initially on scene for
8 that, so I don't know. The shoo-fly is nothing more than
9 a temporary way to reroute the line in order to make
10 repairs to the existing line that's damaged.
11 Q. All right. So multiple towers fell down;
12 correct?
13 A. Correct.
14 Q. You helped install a replacement line until the
15 towers could be fixed or replaced?
16 A. Correct.
17
18 (Grand Jury's Exhibit 453 introduced.)
19
20 Q. All right. So you have in front of you I know
21 Exhibit 453. Explain to us what is Exhibit 453.
22 A. It's an estimate drawn up by an estimator on a
23 design that was engineered, if you will, for a temporary
24 solution to construct a shoo-fly.
25 Q. What was your part in the project of the
26 shoo-fly?

1 A. As a crew foreman, giving -- you know -- to
2 build the line, to see that the line was built per, to
3 standard, or per this drawing in this case.

4 Q. Okay. So you actually built the line pursuant
5 to this drawing?

6 A. Correct.

7 Q. Now, can you kind of walk us through this, this
8 drawing, what the different colors and numbers and
9 everything represent.

10 A. The numbers represent location numbers for
11 poles. So each pole in this case is going to have a
12 location number, which you would be able to go to the
13 document that would identify all the building material
14 that would be used on each pole.

15 The coloring, the top right of the screen you
16 can see where it says in the red with the, with the -- I
17 think that's a "TR." I can't read that. But it's
18 depicting the transmission line. And then the red
19 underneath, it's the distribution. And it identifies the
20 size of conductor that would be installed. So --

21 Q. Feel free to get up and use the board.

22 A. That's the new conductor of the transmission,
23 that's the conductor of the distribution, and that's the
24 conductor of the old line that went down.

25 Q. Okay. So the 397 AR, which is depicted in the
26 red, the dashes with the TRs, that's the new conductor

1 that was going up?

2 A. Yes.

3 Q. And the TCU, which is the red dashes with the

4 P's, is distribution line?

5 A. Correct.

6 Q. And 452 AR, which is the dashes and the line,

7 is the old conductor that was being removed?

8 A. Correct.

9 Q. Okay. So this black line that's marked

10 Caribou-Palermo, that was, that's the actual

11 Caribou-Palermo transmission line; correct?

12 A. (Nods head.)

13 Q. And the red lines depict the replacement line

14 that you put in, the shoo-fly?

15 A. Okay.

16 Q. Remember, she can only take down words.

17 A. I'm sorry.

18 Q. I know, I'm looking at you, but you're nodding

19 your head, and she can't take that down.

20 All right. So you actually replaced the line,

21 putting up a new line in a parallel location; is that

22 correct?

23 A. On the road, yes. There's a service road that

24 runs there. And that line, that red line, follows that

25 service road mostly.

26 Q. Along Camp Creek Road?

1 A. Yes, sir.

2 Q. All right. Six towers went down. How many
3 poles did it take to replace those six towers?

4 A. It looks like 15 locations. I don't remember
5 exactly, but I think 15.

6 Q. Okay. And you finished this project in January
7 of 2013?

8 A. I don't recall dates.

9 Q. Right.

10 A. Sounds close.

11 Q. Going back to 241, Exhibit 241, which is the
12 Corrective Work Form, it says that you, the line went
13 back in service, "Work completed by (WITNESS #8), line is
14 back in service 1/31/13?"

15 A. Yep.

16 Q. Is that consistent with your memory?

17 A. Yes.

18 Q. And finally, to put this line back in service,
19 did you use the old conductor or did you install a new
20 conductor?

21 A. No, the new conductor is up on top where it
22 says install 397 AR. That's the new conductor, even in
23 the shoo-fly.

24 Q. Okay. So what happened to the old conductor
25 that was attached to the towers that fell down?

26 A. Rolled up on a machine, I believe, and taken to

1 the scrap yard.

2

3 (Grand Jury's Exhibit 159 introduced.)

4

5 (Grand Jury's Exhibit 454 introduced.)

6

7 Q. Okay. All right. Now we're going to go on to
8 159, should be there in front of you, which is another
9 Corrective Work Form. And, again, your part of this is
10 the very last line on page 2. And then I think, also,
11 you have in front of you 454, which you provided to me
12 earlier today. We don't have a PowerPoint. It's the
13 other one. All right.

14 Tell us what 454 is.

15 A. 454 is a Corrective Work Form for electric
16 transmission line written up by, a tag written up by a
17 maintenance employee --

18 Q. Okay.

19 A. -- doing inspections.

20 Q. So going back to 159 that you have in front of
21 you would be a Corrective Work Form written up by a
22 maintenance employee; correct?

23 A. Correct.

24 Q. And 454 is a little bit different, but explain
25 to us how 454 relates to 159.

26 A. Well, I don't -- I can't speak on the

1 inspection side of it because that's not in my, my job
2 scope of what I do for PG&E, which you've identified as
3 454. So I don't, I don't know about these. But --

4 Q. Okay. Is that something that you're given?

5 A. At some point, yes.

6 Q. Let's go back to you were talking about how you
7 do, your General Construction crew does the big jobs.
8 How do you get your jobs assigned to you?

9 A. I don't pick the work. It usually, you know,
10 picks the local crews in the area, you know, from
11 scheduling. You know, the field engineers that do
12 scheduling set up the work. I don't set up the work.

13 Q. Okay. But the work itself, do you know how
14 that work is identified that it needs to be done?

15 A. No.

16 Q. All right. Back in 2016 did your crew do a big
17 job of replacing parallel groove connectors on the
18 Caribou-Palermo line?

19 A. Yes.

20 Q. Do you know how that job came about being
21 assigned to you?

22 A. Well, yes. Being there was multiple locations
23 to be done, the typical maintenance work group wouldn't
24 be able to handle it, I believe, in a timely manner. And
25 I had a hole in my schedule for work and had other crews
26 helping me at the time from the Camp Creek Road incident,

1 the towers that went down, so I was asked if I could take
2 on that work, looking at my schedule.

3 Q. Do you recall when your crew replaced all the
4 connectors on the Caribou-Palermo line?

5 A. Specifically, no. Dates I don't.

6 Q. Time frame?

7 A. Maybe 2016. Somewhere in there.

8 Q. All right. 454, is any of that document
9 prepared by you?

10 A. Not prepared by me, no. Not, not on 454. But
11 you've got multiple things stapled together here, so. Or
12 there are multiple things stapled together.

13 Q. Right. Is there some part of that document,
14 454, that you signed?

15 A. Yes.

16 Q. And what part is that?

17 A. The Corrective Work Form signing that the work
18 was complete. And then Construction Completion Standard
19 Checklist, or CCSC Form, filled out by me for the work
20 that was complete for changing the connectors.

21 Q. Okay. Did -- when you signed the Corrective
22 Work Form stating that the work was complete, did you
23 date that signature?

24 A. Yes.

25 Q. What date?

26 A. June 18th of '16.

1 Q. Okay. And does that form somewhere on it state
2 what tower number the work was being done on?

3 A. Yes.

4 Q. And what tower number was the work being, that
5 you completed on June 18th?

6 A. 27 over 222.

7 Q. All right. 27/222?

8 A. Correct.

9 Q. All right. So sometime when you finished
10 27/222 in June of 2016, is that a fair conclusion from
11 the paperwork?

12 A. Yes.

13 Q. And you said that you had a hole in your
14 schedule and you had some crews available because of the
15 2012 tower collapse; correct?

16 A. Correct.

17 Q. What was going on in relation to the 2012 tower
18 collapse in June of 2016, or the summer of 2016?

19 A. I believe the final replacement of the towers
20 had gone down.

21 Q. Okay. What part did you play in the final
22 replacement of the towers?

23 A. Building a construction plan to get the job
24 done.

25 Q. All right. Did your crews play any part in the
26 actual construction of the new towers and new

1 transmission lines through there?

2 A. Not the towers, but the line, yes.

3 Q. Explain to us what your crews did?

4 A. Well, PG&E employs a department called Tower
5 Department. I'm in the Line Department.

6 Q. Right.

7 A. So Tower Department builds towers and Line
8 Department restring line.

9 Q. All right. So the Tower Department built the
10 new towers to replace the six towers that fell down in
11 2012?

12 A. Correct.

13 Q. And your crews came in and installed the new
14 conductor on those towers?

15 A. Correct.

16 Q. Just like when you installed the shoo-fly in
17 2013, the temporary replacement poles for the towers, did
18 you simply move the old conductor or did you install all
19 new conductor?

20 A. All new conductor.

21 Q. So while that was going on, you took on the
22 replace connectors project; correct?

23 A. Roughly, correct.

24

25 (Grand Jury's Exhibit 170 introduced.)

26

1 Q. All right. Showing you photograph up in front
2 of you marked as Exhibit No. 170. This has been
3 identified as a photograph of 27/222. Are you familiar
4 with this type of tower?

5 A. Yes.

6 Q. Now, I'm going to give you a, I'm going to let
7 you stand up here. And the Smart Board up here has some
8 really great functions. There's a pen. And basically
9 can you identify for us on the photograph using the red
10 pen, which is your finger, where those connectors that
11 they needed to be replaced are located? Whoops. You
12 changed it to black. There we go back to red. All
13 right. That's okay.

14 A. There's a sixth connector, I'm just not seeing
15 it. It must be right here.

16

17 (Grand Jury's Exhibit 170C marked for identification.)

18

19 Q. We'll label this as, it's 170C is where we're
20 at right now.

21 Just, for the record, you've drawn five red
22 circles around what you identify as the connectors. You
23 say there's a sixth one somewhere probably on the
24 backside of the tower from where the photograph is taken
25 that you can't exactly see?

26 A. Yeah.

1 Q. So there should be six connectors on the tower?
2 A. Yes, there are.
3 Q. Just, briefly, what are the connectors, by the
4 way?
5 A. The way to join two ends of wire together to
6 keep continuity.
7 Q. Do you know why you were replacing those
8 connectors?
9 A. I believe an order came from Asset Strategy
10 Team that, moving forward, all connectors to be used,
11 unless authorized to be able to use a bolted connector,
12 we're to use an Ampact connector.
13 Q. Do you know what the difference is between the
14 two?
15 A. Electrically, no.
16 Q. For instance, when you were installing the
17 shoo-fly, the temporary line, in 2013, January of 2013,
18 did you use parallel groove connectors or did you use the
19 Ampla?
20 A. Ampact.
21 Q. Ampact connectors?
22 A. Ampact on the shoo-fly.
23 Q. Okay. Do you know when the parallel groove
24 connectors were no longer to be used?
25 A. No.
26 Q. Using this, and you can use your fingers, and

1 we'll change colors here, can you describe for us the
2 process of changing those connectors, how your crews went
3 about doing that work?

4 A. We use helicopters for a lot of our work.

5 And you want a different color than black?

6 Q. Oh, yeah. You can change it. There's blue.

7 A. Can I ask which, where the failure was on the
8 tower?

9 Q. The failure was front, right here. We'll put a
10 black mark on it.

11 So now you go back to your blue.

12 A. So the guys would fly in via helicopter and
13 land up here on the bridge, somewhere up here on this
14 bridge right here.

15 Q. Okay. So you're circling the area you describe
16 as a "bridge" with a blue circle?

17 A. Correct.

18 Q. Okay. So you come in on a helicopter and your
19 guys land there --

20 A. Correct.

21 Q. -- on the bridge?

22 Then what do they do?

23 A. Well, with -- typically, when we fly out a
24 couple guys, I'll have a couple, multiple helicopters out
25 of an LZ. And the guys fly in pairs of two. They'll fly
26 out, and the helicopter behind them will be hauling out

1 their cargo. In this case, it would be a dead end
2 ladder.

3 Q. What's a dead end ladder?

4 A. A dead end ladder is -- you can, obviously, see
5 there's no way you can stand on the tower and reach that
6 connector. So a ladder is going to -- it will look just
7 like a ladder, but it's fiberglass and it's going to have
8 a couple rungs on one end. It's going to hang on the
9 tower and come out here to the wire to where it's
10 supported with an A-frame on the wire. And it's got the
11 two rungs there. So that would be like the profile look
12 of the ladder. Is that --

13 Q. Okay. So that's indicated with a blue line
14 going off onto the wire?

15 A. Correct.

16 Q. What do you use the dead end ladder for?

17 A. To get out to the connector.

18 Q. All right. How long does it take to replace a
19 connector?

20 A. Ten minutes.

21 Q. Briefly describe for us the process of
22 replacing a connector.

23 A. Well, the linemen would go up out on the tower.
24 They would ground, they would use a personal ground out
25 on the wire to shunt the wire out so they don't
26 electrically electrocute themselves, if you will. So

1 you've got that connector, they're going to break that
2 connector apart. So you need to have a way to bridge
3 that connection while you temporarily, temporarily bridge
4 it while you change that connector.

5 Q. How do you do that?

6 A. With a personal ground stick.

7 Q. What describe for us what a personal ground
8 stick is and how it will work.

9 A. It's a stick with a ground clamp on one end.
10 And it's going to have -- a fiberglass stick, and it's
11 going to have a cord come off it that will be 15, 20, 25
12 feet long. It's going to have a clamp on that end. So
13 that's one. The guy on this side of the tower would have
14 another. And when they take and hook the clamp up to the
15 steel and they come out here and ground the wire, there
16 and on the other side of the tower, that, that keeps the
17 continuity of that conductor. Therefore, when you break
18 that connector apart, you're not going to get in series
19 with induction.

20 Q. Okay. You used another term earlier, I need to
21 have you define that, "shunt" the wire?

22 A. That is, that's shunt. Same thing.

23 Q. Okay. All right. How long does it take your
24 crews to do a single tower, to replace all the connectors
25 in a single tower?

26 A. It varies. Depends on the flight time from the

1 LZ out to the tower.

2 Q. LZ is what?

3 A. Landing zone.

4 Q. So the question is, the big question is your
5 guys are in the tower, why would they not see what's
6 going on down here in the transposition arms?

7 A. Well, there's quite a bit going on doing, doing
8 this work right here. You've got to understand, these
9 guys are flying into the tower, and the first thing
10 they're looking at is where they're going to land on the
11 tower. So, you know, foot placement. There's days where
12 it's raining, your feet are muddy, which causes, you
13 know, a slippery condition, a safety condition. So
14 coming into the tower, the first thing you got to do is
15 look to see where you land and pick a good spot. So
16 you're looking for something that might be, you know, a
17 bad piece of steel, you know, or a missing piece of
18 steel, or bolts that fall out of the steel that hold the
19 tower together. So you're just being mindful of that
20 stuff, looking for it.

21 So you come in, land on the tower, you belt off
22 to the tower, your line to the helicopter will come slack
23 at that point, then you unclip from the helicopter. You
24 and your pole partner, your buddy, get unhooked from the
25 helicopter. That helicopter leaves and then immediately
26 these guys are transitioning to start looking, they

1 identify where they want to start on the tower. And, you
2 know, meaning this, the outside -- the river faze, the
3 middle faze, or the uphill faze. They pick a side,
4 because it's all got to get done.

5 And then they're now looking at hazards that
6 are associated with their work, which from the tower out,
7 the immediate thing is broken bells. Because you walk
8 out a ladder, you don't have anything to hang on to.
9 You're balancing, you know, to get out there, out to the
10 work. So they wander out on the ladder. And you're
11 looking for broken bells, because sometimes that's where
12 your handle is, is on those insulators. And,
13 unfortunately, people out in the woods love to shoot up
14 insulators with guns. So it's a real deal. And
15 porcelain glass, when it's broke, it's razor sharp. So
16 you're looking for potential safety hazards, you know.
17 That's how you got to get out the ladder.

18 When you get out on the ladder, you get your
19 personal ground installed, now you can get, you know,
20 physical, physically on the wire and starting to touch
21 stuff. But other things you're concerned about is
22 gunshot wire, or wire that's gunshot. I've come on to
23 wire that's got a perfect hole right through the middle
24 of it from a bullet that went through. So you're looking
25 for that stuff. The last thing you want is something to
26 break while you're out on that ladder and it come apart.

1 You know, it could kill you.

2 So you get out there and you're concerned about
3 those things, right here, this is what's going on in your
4 field of view. That's your scope of work is to change
5 this connector out.

6 So after you get out on the ladder by yourself,
7 and your pole partner is out on the other ladder by
8 himself, you guys are yelling across the tower at each
9 other: "My shunt is on," and he's saying, "My shunt is
10 on." Okay, now we know that we can break the connector
11 apart safely without getting in series. In this area
12 right here, there's multiple transmission lines that run
13 with this particular line. So induction is a big thing
14 out there. You get an induced voltage blown onto this
15 current, current-carrying conductor, it might be
16 de-energized, but it's still carrying current from the
17 induction being blown on there.

18 So that's another hazard that they're concerned
19 about flying, flying into the tower, is being able to
20 communicate. The wind's blowing, it's noisy, all of that
21 stuff. There's all these things that are trying to
22 distract you from just getting out here and changing the
23 connector. It seems so simple, but there's so much that
24 goes into it.

25 I mean, as far as that goes, their work is up
26 here. You know, they fly in on top of the tower. They

1 do their work collectively from one side to the other.

2 You can imagine the safety aspect of it, of what they've
3 got to look at.

4 Q. Right. Okay. And thank you. Before we
5 finish, let's make sure we get this marked. I think now
6 we're using green. I just want to make sure we've good
7 and accurate record of what we're doing. This top circle
8 up here is the bridge. We're going to mark that in green
9 as bridge. That's what you were referring to as bridge;
10 correct?

11 A. Yes.

12 Q. This line right here, that's your dead end
13 ladder; correct?

14 A. Correct.

15 Q. And this blue line down here, that's your
16 grounding wire; correct?

17 A. Correct.

18 Q. We're marking that grounding wire in green.

19 Now, this over here on the left side you were
20 drawing on, that is --

21 A. Ground shunt.

22 Q. Ground shunt.

23 A. Or personal ground.

24 Q. Ground shunt, slash, personal ground.

25 All right. And then over here the X is our
26 failure location.

1 All right. And all the red circles are the
2 connectors that need to be changed with the exception of
3 one that couldn't be seen. There's six total; correct?

4 A. Six total.

5 Q. All right. I think we've got everything
6 labeled correctly.

7 I have no further -- let me rephrase that. I
8 have no further questions.

9 Do any jurors have questions for (WITNESS #8)?

10 Seeing none, thank you, (WITNESS #8), for
11 coming in and explaining this. Madam Foreperson is going
12 to have admonition for you.

13 GRAND JURY FOREPERSON: (WITNESS #8), you're
14 admonished not to discuss or disclose at any time outside
15 of this jury room the questions that have been asked of
16 you or your answers until authorized by this Grand Jury
17 or the Court. A violation, a violation of these
18 instructions on your part may be the basis for a charge
19 against you of contempt of court. This does not preclude
20 you from discussing your legal rights with your own
21 attorney.

22 (WITNESS #8), what I have just said is a
23 warning not to discuss this case with anyone except the
24 Court, your lawyer, or the district attorney. Do you
25 understand?

26 THE WITNESS: Yes, ma'am, I understand.

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GRAND JURY FOREPERSON: Thank you. Thank you
for your time today.

THE WITNESS: Thank you.

MR. NOEL: Thank you, (WITNESS #8).

[DISCUSSION OMITTED.]

--oOo--

COURT REPORTER'S CERTIFICATE

This is to certify that I, JENNIFER L. HUNT, CSR, a Certified Shorthand Reporter of the State of California, was present at the time and place the foregoing proceedings were had and taken in the within matter; that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings and afterwards caused my said shorthand writing to be transcribed into typewriting. Further, pursuant to CCP237 all reference to jurors by name has been redacted.

The foregoing pages beginning at:

1 through 70

are certified to be a complete transcription of said stenographic shorthand notes.

DATED: THIS 6TH day of JUNE 2022


JENNIFER L. HUNT, CSR 10735
OFFICIAL REPORTER

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IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

BCSC-2019-GJ-01

REDACTED
CERTIFIED
COPY

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, AUGUST 13, 2019

VOLUME 16

OROVILLE, BUTTE COUNTY, CALIFORNIA

JENNIFER L. HUNT, CSR 10735, OFFICIAL COURT REPORTER

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(Present) Marc Noel, Deputy District Attorney

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OFFICE OF THE ATTORNEY

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OROVILLE, BUTTE COUNTY, CALIFORNIA

TUESDAY, AUGUST 13, 2019

8:30 a.m.

(Confidential Grand Jury Proceedings)

-oOo-

[PROCEEDINGS OMITTED.]

[DISCUSSION OMITTED.]

[ROLL CALL OMITTED.]

[DISCUSSION OMITTED.]

GRAND JURY FOREPERSON: (WITNESS #18), would
you please stand and raise your right hand to be sworn.

(WITNESS #18)

having been called as a witness in
the matter now pending, having been first
duly sworn, testifies as follows:

THE WITNESS: I do so swear.

GRAND JURY FOREPERSON: Thank you. Have a
seat.

EXAMINATION

BY MR. NOEL

Q. (WITNESS #18), for the record, can you state
your full name, spelling your last?

1 A. Full name, (WITNESS #18), (SPELLING REDACTED) .
2 Q. Are you employed?
3 A. Yes, sir.
4 Q. By whom are you employed?
5 A. Pacific Gas & Electric.
6 Q. In what capacity?
7 A. I am currently a transmission troubleman.
8 Q. How long have you been employed by PG&E?
9 A. Started in '95, so twenty --
10 Q. Twenty-three, 24 years?
11 A. Yeah.
12 Q. Can you walk us through your career with PG&E,
13 jobs that you've held, where you started?
14 A. Right. I started in January of '95 in
15 Sacramento as a meter reader. And then about a year
16 after that I took a job as a customer service rep also in
17 Sacramento, answering the 800 number. About a year to
18 year and a half after that, I took a job as an apprentice
19 lineman in Coalinga, California. Did four years down
20 there. And in 2001 I got a job at Table Mountain as a
21 transmission lineman. About 2005 I took a one-year,
22 six-month to a one-year rotation in the safety program.
23 I came back to my transmission lineman job. Did a couple
24 of shorter rotations, you know, like six months here or
25 there. In between that, that time, in 2014 I believe it
26 was I took a job as a distribution compliance inspector

1 and came back to Table Mountain in 2016, I believe, and
2 have been a transmission troubleman at Table Mountain.

3 Q. Okay. What is the -- you said you did a
4 six-month to one-year rotation in the safety program.
5 What is the safety program?

6 A. That, it's basically you were out there
7 assisting the different departments with their safety
8 records, ensuring that their training was up to date,
9 providing them with additional materials if they needed
10 it. For instance, we had a tower crew that was working
11 up in the canyon. They were working on a heavy slope.
12 They gave me a call, and I directed them where they could
13 get slope information, provided them with what degree
14 slope they could access without being tethered, worked
15 with them to come up with a rescue plan if for some
16 reason an incident were to happen. That's just an
17 example.

18 Q. Okay.

19 A. I also did training for the different crews,
20 provided them with their required mandated training.

21 Q. So you're talking about employee safety,
22 personal safety?

23 A. Yes, sir.

24 Q. One of the things we've talked about, the 100
25 Percent Climbing Program, that kind of stuff?

26 A. That -- this was before that, but yes. That

1 would be an example.

2 Q. Basically ensuring that the employees were
3 doing their jobs in a safe manner, that they weren't
4 going to get hurt, or minimize the chances; correct?

5 A. Yes, sir. And we also did investigations. If
6 something did go wrong, we would be one of the first
7 people that would go out there and do investigations on
8 minor events. The major events, then it would go to a
9 safe, a qualified safety engineer would come out and
10 complete that kind of investigation.

11 Q. All right. So you started as a transmission
12 lineman somewhere around 2000; is that correct?

13 A. 2001, yes.

14 Q. And 2000 -- so when you started as a
15 transmission lineman, that was here at Table Mountain?

16 A. Yes, sir.

17 Q. Okay. What kind of training did you obtain to
18 qualify you as a transmission lineman?

19 A. We go through an apprenticeship. So I started
20 as an apprentice lineman '97 in Coalinga. And that's a
21 three-year apprenticeship. During that apprenticeship,
22 they expose you to both distribution, transmission
23 secondary work. It's supposed to expose you to all
24 aspects of actual line work. So I had a small amount of
25 transmission work during my apprenticeship that I was
26 down in Coalinga, and then when I got to Table Mountain

1 in 2001, basically you get on-the-job training to expand
2 whatever you know.

3 Q. Okay. Who provides the on-the-job training?

4 A. The crew you're working with. It's on-the-job.

5 Q. Why transmission as opposed to distribution for
6 you?

7 A. One of the big factors was the area. So
8 Coalinga, California, is not where I was born, grew up,
9 or a place that I would want to live and raise a family.
10 Not -- hopefully no one's here from Coalinga. If they
11 are, it's a decent place to live, it's just the weather
12 down there is harsh. I was born in Auburn, California.
13 This is obviously a lot closer to Auburn than Coalinga
14 is. And my wife at the time was from Grass Valley. So
15 we were both happy to move up into this area. That was
16 the big factor.

17 It was also more challenging. Distribution
18 work in Coalinga was, it was a little boring I guess.
19 There's not a lot of complicated-type projects in
20 Coalinga. A lot of -- it's just -- I don't know how
21 technical you want me to get, but you got a single phase
22 tap line that's going out to an ag pump for five miles.
23 So you're maintaining a single phase tap line for five
24 miles. You've got crossarm poles. You're doing that
25 every day. There's no variety.

26 Q. I'm just surprised that they have electricity

1 in Coalinga.

2 A. All right. Let's not degrade Coalinga. They
3 were good to me. The people down there were nice.

4 Q. In 2001 you come up here and you become --
5 you're a lineman now, a journeyman lineman assigned to
6 Table Mountain?

7 A. Yes, sir.

8 Q. What types of things were you doing at Table
9 Mountain?

10 A. We did a lot of transmission work. We have a
11 fairly good mix in this area of both wood poles and steel
12 structures; a lot of insulator change-outs, repairing
13 damage, conductor damage, a lot of winter storms, trees
14 come down, damaged structures, conductors. That we'll go
15 out and fix a conductor, replace insulators, replace
16 conductors on occasion.

17 Q. So in 2002 were you asked to do an aerial
18 patrol, the annual aerial patrol of the Caribou-Palermo
19 115 kV line?

20 A. In 2002 the company was going through a
21 bankruptcy process, and that was during the era where we
22 were forced into bankruptcy due to we weren't able to
23 recover the rates that we were paying for electricity
24 from the actual rate payers. That forced us into a
25 bankruptcy situation. And a bankruptcy judge asked us to
26 do a plan of reorganization.

1 Part of that plan of reorganization was to find
2 out what assets we had in our system, whether we had any
3 attachments from third parties on those, which means that
4 we could be collecting money from those third parties,
5 and what -- how many structures we had out there. So
6 they came up with a computer program that they put into a
7 helicopter, and they wanted the employees to go out and
8 log via the helicopter what structure was where, what
9 framing it had, and whether there were any attachments.

10 I was -- I don't want to say that I was a
11 computer expert, but in 2002, which was quite a while
12 ago, at Table Mountain, I was the computer expert. So
13 they actually tasked me to assist with doing that
14 project. I did the Caribou-Palermo and several other
15 lines.

16 Q. Okay.

17 A. Multiple.

18 Q. Who tasked you with that project?

19 A. That would be (EMPLOYEE #9), who was the
20 current supervisor at that time.

21 Q. Okay. And the reasons for why you were tasked,
22 or the reasons for why you were doing the type of patrol
23 at the time, how do you know those?

24 A. I actually created quite a few Excel
25 spreadsheets with GPS data that, the attachment data, the
26 framing data, and those files were the exact same dates

1 or close to in proximity of the dates this particular
2 aerial patrol was done.

3 Q. Okay.

4 A. And I couldn't -- I mean 2002, that was a long
5 time ago. So my -- I don't have perfect clarity of that
6 memory, I just know that, that during that time period I
7 was doing those. And I'm not certain as to whether an
8 additional air patrol was done that year and this was
9 just supplemental, or whether this was the actual air
10 patrol.

11 Q. The information regarding the bankruptcy and
12 the judge's orders, how do you know about that
13 information?

14 A. We were briefed on it.

15 MR. NOEL: And, ladies and gentlemen, just
16 remember your admonition we've given you over and over
17 again. Hearsay. This is not being offered for the truth
18 of the matter, it's simply giving a background as to why
19 and how he came to be doing this. So don't consider it
20 as the truth.

21 We have to give them that to make sure.

22 Q. (By MR. NOEL) Before you did your aerial
23 patrol in 2002, were you given any training in doing
24 aerial patrols of transmission lines?

25 A. I had done some ride-alongs with the
26 transmission troublemen both for aerial patrols and

1 detailed ground inspections, but it was all on-the-job
2 training. There was no official training that I can
3 remember at that point.

4 Q. Do you recall, was there a troubleman for the
5 2002 air patrol or were you by yourself?

6 A. I do not recall.

7
8 (Grand Jury Exhibit 455 was introduced.)
9

10 Q. You have in front of you what's marked as
11 Exhibit 455 for identification.

12 A. Yes.

13 Q. Do you see that exhibit?

14 A. Yes, sir.

15 Q. Do you recognize that exhibit?

16 A. Yes, sir.

17 Q. What is that exhibit?

18 A. That would be related to what we were just
19 discussing, the 2002 air patrol of Caribou-Palermo.

20 Q. That was the aerial patrol that was performed
21 by yourself?

22 A. Yes, sir.

23 Q. This is a little different. It's a long time
24 ago. Can you explain -- we have the front page of 455 up
25 on the big board. Can you explain to us how to read the
26 front page here? And feel free to get up and use the

1 board if you want. You can get up and walk around;
2 you're not chained to the desk.

3 A. Do I have to take the microphone with me?

4 Q. You talk pretty loud.

5 A. So up here in the right-hand corner we've got
6 the date. This is a stamp that's put on after the
7 paperwork is already filed. It's basically a checklist
8 to make sure that all the paperwork related to this
9 patrol is completed. "Supervisor check, final
10 confirmation to DOCC," that's a clerical function to tell
11 them that they can close this work order.

12 So up here you'll see an order number. That's
13 an actual work order number.

14 "Add/Delete Structures," that's a clerical
15 function based on what information is given to them by
16 the transmission troublemen.

17 "Notifications," if there are any notifications
18 that are created for this line.

19 And "Equipment Changes", which oddly enough is
20 not checked. And basically that is our sending the
21 equipment changes to our mapping department for them to
22 correlate and send that information back. That's my
23 understanding of that one.

24 We have "Old Line Sections." So obviously this
25 is an old line. It's basically gone through quite a few
26 different name changes and configurations. The one just

1 prior to this was Caribou-Sycamore Creek -- I don't know
2 if you guys are familiar with Sycamore Creek Substation,
3 but it's up in Chico -- was one section of it. And then
4 the other section of it was Palermo-Big Bend No. 2. Big
5 Bend is a switching station that's on the side of Lake
6 Oroville. So Caribou-Sycamore Creek used to come in from
7 Caribou Powerhouse into Big Bend and then go up to Chico.
8 And the Palermo Big Bend is just that, goes from Palermo
9 Substation up to Big Bend. They combined those two
10 sections of line and turned it into the Caribou-Palermo.

11 The notation here with the little parenthesis,
12 has a semicolon there. So if you look through the larger
13 document, you will see some structures that have a
14 semicolon before the actual structure number and some
15 that do not. That do not are going to be the section of
16 line that went from Palermo to Big Bend. The pieces that
17 do have a semicolon are going to be from Caribou to
18 Sycamore Creek section.

19 Kind of the top part of the form, "Crew
20 Foreman." Obviously, I was not a foreman, but the way
21 these orders got printed out in 2002, if it had a job, it
22 had a foreman. So because I did this aerial patrol, I'm
23 now the foreman. Unfortunately, I didn't get foreman
24 pay, I can guarantee you that.

25 And that's pretty much it for that page, unless
26 -- well, the other thing that kind of leads me to believe

1 that there could have been an additional air patrol is
2 our end date on here is 6/25/2002. And this date
3 obviously is 8/26/2002. So we either filed for an
4 extension or there was an additional air patrol. And to
5 be quite honest with you, I can't remember whether there
6 was an additional air patrol or whether we were just
7 doing this from land.

8 Q. Great. Thank you. Very helpful.

9 All right. Let's move on to page 3 in that
10 document.

11 A. All right.

12 Q. We have page 3 up on the big board. Explain to
13 us what, what we're looking at here on page 3.

14 A. So this is the data sheet. I'm sure if you had
15 some more troublemen here, you've seen these before.
16 This is where we would list all of the findings that we'd
17 have on a patrol. I was brand new. I wasn't real clear
18 on what exactly would be a finding and how to list these,
19 so I kind of like was working just off my own playbook at
20 this point, because I was tasked with adding structures,
21 relating to the POR. So that's what I basically had as
22 findings was these structures were missing from the
23 detailed sheet, which we're going to go into next I'm
24 sure. And so there -- they needed to be added to the
25 patrol.

26 As you can see here, I put structure numbers

1 over here, "add structure" as the comment.

2 "Inspector Name." I'm no longer the foreman,
3 just the inspector. There's my name, the date.

4 "Miles Inspected." I'm 99 percent sure that
5 what I did is I took my miles here and put my miles up
6 there.

7 And the structure count is going to be
8 different. I can't really read it on that. But the
9 structure count was what I was really concerned about.
10 If they want to tell me that it's 62 miles to get from
11 Caribou to Palermo, it doesn't impact anything as far as
12 what I was doing, so I didn't feel like I needed to make
13 a correction. Once again, new, 2002. I guess if you
14 wanted to try and pick it apart, it might not be 62 miles
15 from Caribou to Palermo.

16 This up here, this would be (EMPLOYEE #9)'s
17 signature. He signed it on October 16, 2002.

18 Q. Now, you talked about the object list.

19 A. Yes, sir.

20 Q. Now we have the object list, page 4, up in
21 front.

22 A. Page 4, once again, in the upper right-hand
23 corner, my name, date, inspect date, 2602.

24 You're going to find over here we have the
25 structure numbers listed, as I said before. We have four
26 boxes. You have a choice between four boxes to check on

1 these. Top one being "Completed No Problems," "Completed
2 New Findings," "Preexisting Condition Check," and "Not
3 Inspected this Patrol."

4 This here is going to give you your structure
5 number. And above that is going to be your frame type.
6 The top one, "Suspension, 000 over 001, lattice steel
7 tower."

8 The first correction that I made was on line
9 item 3. I checked the box for "Completed, New Findings."
10 And I was changing the frame from suspension to a DDE,
11 which stands for double dead end.

12 Similar on -- what is that? -- number 5, going
13 down here, the TRP DDE stands for transposition double
14 dead end.

15 And I marked "Completed New Findings" and
16 "Preexisting Condition" checked. And that's based on
17 another part of this patrol, which actually has the
18 conditions that are on the line.

19 So that one there is showing that it has a
20 preexisting condition, meaning that I already have a work
21 order to fix something on that structure. And I marked
22 the "Completed New Findings" because I was changing the
23 frame.

24 Q. Can you explain to us the difference between a
25 suspension tower and a double dead end?

26 A. Yes. Yes. Suspension tower would be where you

1 have the wire is being suspended from a single insulator,
2 or single set of insulators. A double dead end is where
3 the wire is actually, the tension on the wire is being
4 supported by the structure in a lateral sense. So you
5 have the wire coming in being supported by a steel
6 structure, the actual line tension, and then being
7 supported again for the line tension going out the other
8 side. The suspension is just supporting it from a
9 vertical. It's not really supporting a line tension,
10 it's just supporting the vertical tension of whatever
11 weight the wire is.

12 Q. Which uses jumper conductors?

13 A. That would be a double dead end.

14 Q. How do the jumper conductors fit in in the
15 double dead end configuration?

16 A. So the double dead end comes in, is supported
17 via the insulators to the structure. The jumper wire
18 comes off where it attaches to the insulator, is
19 supported or unsupported, depending on what kind of
20 double dead end you have. And then it goes over to the
21 other side of that steel structure. And, generally, a
22 jumper wire, just a dipped loop, or you can have overarm
23 jumpers where it's supported on top of the arm via an
24 insulator. Then it goes to the other side of that double
25 dead end and, once again, it goes out on the main
26 conductor.

1 Q. What's the difference between a double dead end
2 and a transposition tower?

3 A. Double dead ends will generally just come in,
4 go through the jumper wire, go out the same side of the
5 tower. A transposition tower double dead end, it will
6 come in, it will hit a separate set of insulators, move
7 to the other side of the tower, and then go back out the
8 other side of the tower.

9 Q. Okay. Okay. Great. I'm going to move on to
10 page 31 in the packet there. Page 28 of the Transmission
11 Line Object List, but page 31 of the entire packet.

12 A. Okay.

13 Q. Specifically, we have down at the bottom "tower
14 27/222"?

15 A. Yes, sir.

16 Q. And you have some notes on that tower?

17 A. Yes, sir. So we -- it was originally listed as
18 a suspension tower. I lined that out, put "TRP,
19 transposition, double dead end," and marked the
20 "Completed No New Findings" box. The check marks that
21 are by these, on the color copies you can see they're
22 actually in red, and I believe those were put on there by
23 the supervisor.

24 Q. And that's where I was going to. You've been
25 able to view the original color copies of these documents
26 at PG&E; correct?

1 A. I've looked at them via my counsel.

2 Q. Okay. On the copies that you have, that check
3 mark to the right is in red ink?

4 A. Yes, sir.

5 Q. And you said that that indicated to you that
6 that was done by your supervisors?

7 A. It was probably done by my supervisor. I
8 remember my supervisor at that time, he liked to mark
9 everything up in red. And I don't like red pens.

10 Q. That was (EMPLOYEE #9)?

11 A. Yes, sir.

12 Q. Great. Thank you.

13 All right. So that was 2002. So then you go
14 away, do a couple other things, then in 2016 you come
15 back to Table Mountain as a troubleman; correct?

16 A. Yes, sir.

17 Q. What training did you receive to qualify you as
18 a troubleman?

19 A. Mainly on-the-job experience. We have some
20 official trainings for doing switching operations. That
21 -- I'm fairly certain that what you're after is what
22 qualifies me to be inspecting.

23 Q. That's the next question, is back in 2002 you
24 were a lineman who was asked to do this because of your
25 computer skills?

26 A. Yes, sir.

1 Q. Now it's 2016. Now you're a troubleman. What
2 training do you receive in how to do patrols, aerial
3 patrols, of the transmission lines or detailed ground
4 inspections of the transmission lines?

5 A. Basically the on-the-job training.

6 Q. And who do you receive that from?

7 A. The existing troublemen. When I took the
8 position most currently, I was already, I had already
9 done quite a few aerial patrols, detailed ground
10 inspections both with the transmission troublemen and by
11 myself.

12 Q. Do you recall who the troublemen were when you
13 started, the ones who gave you your on-the-job training?

14 A. In 2002, it would have been (EMPLOYEE #7) is
15 what he went by. (EMPLOYEE #7) is his legal name.

16 Q. How about when you returned in 2016?

17 A. When I returned in 2016, I didn't receive
18 additional on-the-job training because I had already been
19 -- prior to leaving for Compliance, I had already been
20 doing transmission troublemen work on occasion.

21

22 (Grand Jury Exhibit 456 was introduced.)

23

24 Q. Okay. So now we're looking at Exhibit 456. Do
25 you see Exhibit 456 in the stack in front of you?

26 A. Yes, sir.

1 Q. Do you recognize Exhibit 456?

2 A. Yes, sir.

3 Q. What is Exhibit 456?

4 A. Exhibit 456 will be the Caribou-Palermo for
5 2016.

6 Q. So between 2002 and 2016, some significant
7 changes to that front page; is that correct?

8 A. Yes, sir.

9 Q. Can you explain to us how to read the front
10 page of Exhibit 456, please.

11 A. Sort of. More of a clerical, but yeah. I can
12 tell you specifically what I'm looking for: Order
13 number, what line you're working on, and your due date.

14 So we have end date of 9/30/2016. However,
15 because this is an air patrol, we've gone to quarterly
16 air patrols. So you get to add -- they should all come
17 up with basically an end date for the quarter. So you're
18 going to have an end date of 3 -- 31 days in March? Yes.
19 3/31, you're going to have 6/30, 9/30, because they're
20 all part of it, the ending of a quarter.

21 Q. Okay. And the middle of the page is a
22 statement?

23 A. Correct. It's stating that per north and south
24 superintendents, all air patrols will be completed
25 quarterly, mass change required, end date to be
26 appropriate quarter.

1 Q. Was this a change in policy from --

2 A. Yes, sir.

3 Q. -- originally? Can you explain to us the
4 change?

5 A. I can't tell you when exactly it took place, as
6 far as the year, but I know that when I first got to
7 Table Mountain we would do air patrols whatever month
8 they were due. Meaning that if you did a ground patrol
9 in February, you were going to be doing air patrol in
10 February. If you did a ground patrol in June, you were
11 going to be doing the air patrol in June. What they were
12 doing was consolidating anything that was in January,
13 February, March into one quarter. And that way you could
14 fly multiple lines on the same day.

15 The theory behind it, it was to cut down in the
16 ferry time and the fact that if you did air patrols for
17 two or three hours, what are you going to do for the
18 other six to eight hours in that day?

19 Q. So prior to this you might spend three days a
20 month doing air patrols, but just doing one line each
21 day?

22 A. No, you would generally only do one day per
23 month --

24 Q. Okay.

25 A. -- prior to this. That would be the one day
26 where you caught all of the air patrols that were due

1 that month. And then after this implementation, you
2 would schedule one or two days, possibly three days, to
3 do three months' worth of patrols.

4 Q. All right. So let's move on to page 3 of
5 Exhibit 456, your Transmission Line Inspection Data
6 Sheet. This doesn't look like it's changed too much in
7 14 years?

8 A. No, sir. There are some differences. If you
9 looked at the last one, you were seeing the supervisor
10 signed it up here. We now have signatures for both
11 inspector and supervisor down at the bottom.

12 Q. So down under "Inspection, Inspector's
13 Signature," that your signature?

14 A. Yes, sir.

15 Q. On August 5th, '16?

16 A. Yes, sir.

17 Q. Who was your supervisor in '16?

18 A. My supervisor would be (WITNESS #12).

19 Q. And you recognize (WITNESS #12's) signature
20 there?

21 A. Yes, sir.

22 Q. And why don't you walk us through this sheet
23 like you've done for previous ones.

24 A. Okay. They, they have been expressing better
25 record keeping. Now, "Inspector Name," rather than
26 having "(WITNESS #18)," my last name, now I have to write

1 my first and last name. And on the detailed inspection
2 sheets you have to write it on every page, which gets
3 kind of annoying, but they wanted better records.

4 We got "Date Inspection Complete," "Miles
5 Inspected." Because this is an air patrol, I'm copying,
6 I'm just going to copy what the line miles are and what
7 the structure order number is.

8 On an air patrol, typically we don't keep a
9 count of structures as we're going over them. We're
10 moving at a pace that's in -- we're in a very tight,
11 confined area of the helicopter. We can't have a lot of
12 paperwork up there. So we're not even making tally
13 marks. We're basically writing down the structures that
14 we have problems with.

15 So on 8/5/2016, structure, this is going to be
16 a semicolon, 6 over 46. Like we went through the last
17 one, the semicolon section and non-semicolon section
18 still exist on this line. So 8/5/16, 6 over 46, I have a
19 priority E, which basically means we have a year to fix
20 it. My comments are "Repair bent tower leg." Then this
21 is going to be the SAP notification that got put into our
22 data working system. SAP.

23 And then it's going to be the same process for
24 these other towers. "Replace damaged insulators, replace
25 disconnected insulator string, replace damaged
26 insulators."

1 And then this last line section, because we no
2 longer were filling out the object list, we were just
3 turning in the data sheet, this last section is basically
4 stating that an air patrol was completed from structure
5 000 over 001 to structure semicolon 37 over 303 with no
6 additional findings. Basically stating that that was,
7 these four findings were the last -- or the only four
8 findings I had on the air patrol.

9 This checklist, which was stamped on the front
10 page of the last one, is now stamped onto the data sheet.

11 "Supervisor Check." Apparently that date
12 didn't get filled out. However, we do have a signature
13 and a date down there.

14 "Confirmed to DOCC." Once again, that is a
15 clerical function saying they can close this order.

16 "Add/ Delete Equipment." We didn't have any
17 equipment to add or delete on this one.

18 "Notification." The date that these
19 notifications were completed was 8/12/2016.

20 And then any equipment changes. There were
21 none on this one.

22 This year here apparently I was not doing
23 notifications on the iPad, so that meant the clerical
24 support would be writing in, basically transferring what
25 I wrote down on paper into our SAP system, and they would
26 actually write the notification.

1 Q. Okay. So the right-hand column says
2 "Notification Number," and then there are nine-digit
3 numbers in each box. That's not your writing?

4 A. No, sir. That would be clerical writing.

5 Q. Okay. Something that was added after you
6 turned the form in?

7 A. Yes, sir. And you can see also this is in
8 black ink. That's in blue ink.

9 Q. "Priority." Who sets the priority for a
10 repair?

11 A. I do.

12 Q. And what are the criteria that you use for
13 determining the priority?

14 A. It's a conjunction of we call it our *ETPM*
15 *Manual, Electric Transmission Preventative Maintenance*
16 *Manual*, and personal experience and judgment call.

17 Q. And what are the different priorities that you
18 have to choose from?

19 A. We have a priority A, which means immediate.
20 It will still have a due date of 30 days that we can have
21 the record in there without having to close it
22 immediately. But an immediate response basically means
23 that we're going to fix that situation right now. We are
24 calling out a crew, I'm going to stand by until it gets
25 fixed.

26 We have a B priority, which is a 90-day,

1 three-month, priority. Still extremely high priority.
2 We schedule our crews out far over three months. So, I
3 mean, even though a 90-day priority doesn't sound like
4 it's very immediate, it really is because we're basically
5 going to rearrange our work to get this done.

6 We have an E priority, which is a one-year.

7 And then we actually even have an F priority,
8 which is a two-year tag. But the only thing that we
9 really use those for is if we're going to create a new
10 road, replace a wood pole that is deteriorated but not in
11 danger of falling down.

12 Q. Okay. Thank you.

13 All right. Moving on to page 4 of Exhibit 456.
14 What is page 4?

15 A. That is going to be the priors. So those are
16 work orders that are currently in the system. There's
17 that nine-digit number that we were talking about for
18 notification number. If an order number is created, that
19 will be listed there. You don't always have an order
20 number, because it might not have been, have been gone
21 through our engineering process for them to create an
22 order number.

23 "Required End Date," what date that is supposed
24 to be fixed by.

25 The date that notification was written up.

26 What kind of notification it is.

1 The planner group, that would be who is
2 responsible for getting that work done.

3 Description of what the work is.

4 "Function Location." This is -- all of our
5 lines not only have a name, but they also have an
6 electrician -- electric transmission line number assigned
7 to them. So ETL3190 is for the Caribou-Palermo.

8 This is coding. So this here is going to give
9 you a way of looking at what is going to be involved with
10 that work. So you have like insulator replacement, you
11 have footings. It's a little bit more of a breakdown on
12 that.

13 And the "Notes," I'm not sure what they use
14 "Notes" for. I've never seen anything in the "Notes."

15 Q. So, for instance, the top "Open Notification"
16 up here says "Caribou-Palermo NERC project." Do you know
17 what that means?

18 A. Yes. The NERC is our governing agency, PG&E's
19 governing agency, on the federal side. And they
20 basically came out with new conductor-to-ground clearance
21 limitations. And when they did that, they found a whole
22 bunch of our lines that weren't in compliance for
23 conductor-to-ground distance. And so when they came back
24 with these numbers, they basically created a project for
25 almost all of our lines that are in mountainous areas.
26 Because when they were originally constructed, it was

1 basically -- well, nobody's going to go out there
2 underneath those conductors, so we don't need to worry
3 about the height. Well, we still need to worry about it.
4 They created this project to try and fix them.

5 Q. Great. One last question before we go on. See
6 "Required End Date, NERC project, 12/31/13," down on the
7 third, "4/16/211, 2011." This is a 2016 inspection, or
8 patrol, to use the correct terminology, is it unusual to
9 see open notifications that are past their required end
10 date?

11 A. It's -- there's probably going to be a reason
12 behind it. The "car tower" is going to be because we're
13 still billing someone and/or it's being held up in legal
14 99 percent of the time.

15 Q. What does that mean, "car tower"?

16 A. That means somebody drove their car through our
17 tower. Actually, off Ridge Bar Road. A SUV left the
18 road, went through the middle of our tower, took out a
19 tower leg, and ended up down in the canyon. Thankfully
20 everybody was okay.

21 But, yeah, they're going to leave that job open
22 until it's gone all the way through.

23 Q. So when somebody like you sets a, does a
24 notification, sets a --

25 A. Due date.

26 Q. Yeah, priority tag. For instance, if it's E

1 priority, within one year, it automatically populates one
2 year out?

3 A. Yes, sir.

4 Q. Okay. Thank you.

5 Now, the one thing that's missing out of this
6 patrol, aerial patrol report, is there is no Transmission
7 Line Object List; correct?

8 A. Yes, sir. This was a transition point where we
9 were moving away from filling out the object list for
10 aerial patrols. And if you have a more recent aerial
11 patrol, you'll see that we have a new form that we were
12 putting in there so that we could break up the dates as
13 to which areas of line we inspected on which dates. But
14 this was basically when we were transitioning from
15 removing object lists on aerial patrols and basically
16 saying that we looked at the line.

17 The reasoning behind that is the object list --
18 once again, you have a very cramped area in the
19 helicopter. Trying to fill out those boxes individually
20 as you're flying along and making sure that your
21 structure count is correct is -- when the structure
22 number is a small yellow strip that's probably about a
23 foot long -- it's not practical to try and make sure
24 you're at that structure as you're checking that box.

25

26 (Grand Jury Exhibit 457 was introduced.)

1
2 Q. All right. So now I want to talk a little bit
3 about the process of setting up and scheduling the aerial
4 patrols of these lines. You have in front of you Exhibit
5 457.

6 A. Yes, sir.

7 Q. Do you recognize that document?

8 A. Yes, sir.

9 Q. What is that document?

10 A. This is a document that gets sent out by our
11 Helicopter Operations. I basically put in a request for
12 a helicopter for doing whatever work I'm doing and then
13 it gets put into a computerized format. I provide them
14 with information, it gets puts into these reports.

15 Q. So walk us through how it is that you schedule
16 and set up the aerial patrols of transmission lines.

17 A. There's a couple different ways. So if I have
18 prior notification, like I know I need to go do my
19 quarterly patrols, then I will sit down at the computer
20 and I will fill in all the information: Where I want to
21 be picked up, what lines I'm going to be looking at, how
22 long I think it's going to take me, who is going to be on
23 the flights with me. And then I submit that to our
24 Helicopter Operations. If it's a non-routine and/or
25 emergency, then it's generally I just make a phone call
26 to our Helicopter Operations and give them that

1 information over the phone rather than having it go all
2 the way back to a computer and trying to do that all on
3 the computer.

4 Q. What's the difference between a routine and
5 non-routine aerial patrol?

6 A. A routine aerial patrol is basically going out
7 there, we're trying to find any problems that are
8 existing or deteriorating. We're trying to find obvious
9 broken, malfunctioning equipment out there.

10 The non-routine is generally in response to an
11 event. It could be a momentary outage, it could be a
12 line that is locked out, meaning that it's relayed and
13 the automatics are not going to bring it back in because
14 it's relayed too many times or they have the relays cut
15 out. So then you're actually going out there to look
16 what caused it to lock out and/or momentary.

17 Q. What's the difference between a non-routine and
18 an emergency patrol?

19 A. There really isn't a whole lot of difference
20 other than the wording. There can be a non-emergency,
21 non-routine patrol, but as far as our accounting goes,
22 our emergency patrols are still considered to be
23 non-routine.

24 Q. Okay. So you said your patrols are broken up,
25 your aerial patrols are broken up by quarter; correct?

26 A. Yes, sir.

1 Q. Is there someone who provides you with that
2 list or are you responsible for keeping your own list of
3 which patrols need to be done in which quarter?

4 A. They will provide -- they, meaning our Asset
5 Management Group, will send us an email saying these
6 lines are due for this month on the detailed ground
7 inspection; and then they also send us our air patrol
8 schedule, which would be these lines are due in the first
9 quarter, these lines are do in the second quarter, third
10 quarter, fourth quarter.

11 Q. Whose responsibility is it to set up and
12 schedule those patrols?

13 A. You mean like who is responsible for calling
14 Helicopter Operations or setting up the --

15 Q. Yep.

16 A. -- helicopter venue?

17 Q. Everything that goes into --

18 A. That would be the transmission troublemen.

19 Q. Everything that goes into actually getting the
20 patrol, doing the patrol.

21 A. Yes, sir. That would be the transmission
22 troublemen.

23 Q. All right. Will -- so what are we looking at
24 here with this Work Period Report, Exhibit 457?

25 A. So I'll make a request to Helicopter
26 Operations.

1 "Start Time" is basically when I tell them to
2 pick me up.
3 "End time" is how long I think I'm going to
4 need the helicopter.
5 "Estimated Hours," six hours.
6 "Vendor" is going to be the helicopter company
7 that's going to be flying me. A&P in this case.
8 "Aircraft Type," whether it's going to be a
9 206, 207, 500.
10 The tail number on that air craft.
11 "Pickup Location," where they're going to pick
12 me up at. In this case, A&P Hangar.
13 "Pickup Time," 7:00 o'clock.
14 "Equipment Weight and Additional Weight."
15 "Patrol Line." This is what I plan on getting
16 done on 8/4/16. That's going to be the date up there.
17 These specific lines. I'll give number of structures.
18 Your order number that's associated with it.
19 "Passengers," who is going to be on there.
20 My LAN ID. Sort of my weight.
21 Then we moved on to the 5th. Very similar.
22 Q. Why is the weight of the passengers important?
23 A. The weight of the passengers is important for
24 flight planning. Basically they need to know how much
25 you weigh as to how much fuel they put on there, as to
26 what equipment they can have on the helicopter, what kind

1 of helicopter they're going to have. You've got altitude
2 restriction -- you know, they all have different lifting
3 capabilities at different altitudes.

4 So, for the most part, they know me, they know
5 how much I weigh, and they probably knew that I might
6 have put a wrong digit in the wrong spot. So, yeah.

7 Q. All right. So on August 4th of '16 you planned
8 to do the Grizzly-Tap, the Cresta-Rio Oso,
9 Caribou-Palermo. I got to ask, this says Butte Valley.
10 Is that the correct name?

11 A. No, it's Butt Valley.

12 Q. Why does it say Butte Valley on here?

13 A. One of the clerks did not want to say butt, and
14 they were very offended that we had a line that had butt
15 in the name, so they changed it to Butte. And somehow or
16 another that got changed into an official name change,
17 only it's not because some documents you're going to see
18 a Butt, the other ones you're going to see a Butte. But
19 it is, it's definitely Butt.

20 Q. So the Butte Valley-Caribou line and the Butt
21 Valley-Caribou line are the same line?

22 A. Yes. If you look, this number here, this is an
23 older line number, they're going to have the same line
24 number. Or the ETL number is going to be the same
25 number. So yes, they are the same line.

26 Q. Also the Plumas-Sierra Tap on this day?

1 A. Yes.

2 Q. You planned to do five lines in total, 1,050
3 structures in six hours?

4 A. That was the plan, yes, sir.

5 Q. All right. Now, going on to August 5th. The
6 next day you were going to do some more patrolling;
7 correct?

8 A. Yes, sir.

9 Q. Explain, walk us through what you planned to do
10 on August 5th.

11 A. August 5th, planned on doing
12 Oroville-Thermalito-Table Mountain number 1, number 3,
13 Oroville-Table Mountain, Palermo-Pease, Table
14 Mountain-Butte number 2. That one is actually Butte.
15 Caribou number 2 and Caribou-Plumas Junction. For total
16 1,673 structures in six hours.

17 Q. I just realized something. We have a little
18 bit of a contradiction. I'm sorry we didn't talk about
19 this before. You have the exhibit down there, 456, which
20 is the report that says that the inspection was done on
21 August 5th. But this would indicate that it was
22 scheduled for August 4th.

23 A. Uh-huh.

24 Q. So is that -- do you remember why or have an
25 explanation for why? I'm sorry, I just noticed that
26 while you were talking about it.

1 A. There was probably an email that got sent out
2 or something else was done as far as likely to explain to
3 Helicopter Operations that these dates were changed.

4 Q. It's not important. It doesn't change it, but
5 I just noticed that there was that issue.

6 A. So there's -- when you're dealing with the
7 canyon lines, there's always a possibility the weather in
8 the canyon is going to preclude you from finishing a
9 patrol or make it to where you can't even start a patrol.
10 So, generally, when I schedule with Helicopter Operation,
11 I will put the canyon lines on whatever first day I'm
12 going to do, and then I have a second day set up for
13 whatever I can do down in the valley. If I get blown out
14 of the canyon, I'll come down and do some valley line.

15 Q. Right.

16 A. And I'll go back up into the canyon the next
17 day to try and complete those canyon lines.

18 Q. Okay. Now we go to a third day?

19 A. Yes, sir.

20 Q. August 12th --

21 A. Yes.

22 Q. -- '16. And it looks like the same, the two
23 lines that are scheduled for August 12th are already
24 mentioned over here scheduled for August 4th and August
25 5th; is that correct?

26 A. Yes, sir. So, I mean, from the way I'm looking

1 at this, this is probably a report that was sent out via
2 Helicopter Operations. This was not the original form
3 that I filled out. It's not my original work order. And
4 so it has it listed on here twice. It wasn't like I was
5 filling out all of this on one day and going, "Oh, well,
6 I'm going to go do these on another day, too." Basically
7 what happened here was I wasn't able to complete the
8 Palermo-Pease and the Cresta-Rio, on their respective
9 days, so I set up another day to actually complete those.

10 Q. Okay. That's what we wanted to bring out.

11 Now, is it common to be doing air patrols for
12 five, six, seven lines per day?

13 A. Yeah.

14 Q. All right.

15 A. On the quarterly air patrols, when we do them
16 quarterly, yes.

17 Q. For instance, on the 4th, total structures,
18 1,050 structures in one day?

19 A. That's what was scheduled.

20 Q. Right.

21 A. Obviously, you see that it didn't get done.

22 Q. That's what I was going to say.

23 A. Right.

24 Q. You scheduled to do 1,050. You obviously
25 didn't get to do the Cresta-Rio Oso. So you actually did
26 about 643 structures on this date. And then again on the

1 5th, the 5th you had scheduled to do seven lines, 1,673
2 structures. You didn't get to the Palermo-Pease, so that
3 would have been minus 120. So 1,500 and change
4 structures that day; is that correct?

5 A. I would have to actually look at the patrol
6 documentation, because obviously this is --

7 Q. Right.

8 A. -- this is not going to be extremely accurate.
9 As you can see, I had to reschedule --

10 Q. Right.

11 A. -- those dates. Helicopter Operations either
12 got an email or I called them on the phone telling them,
13 "Hey, I'm changing these around," and didn't get the
14 change on this piece of paper.

15 Q. Right. But --

16 A. To tell you exactly what, exactly how many
17 structures I looked at per day, I'd have to look at the
18 actual patrol records.

19 Q. Right. The question is, is this unusual to be
20 scheduling to do this much per day?

21 A. It's ambitious, but I wouldn't call it unusual.

22 Q. Perfect. Thank you.

23

24 (Grand Jury Exhibit 459 was introduced.)

25

26 Q. All right. We were talking about your

1 scheduling. You have in front of you Exhibit No. 459.

2 Do you see that exhibit?

3 A. Yes, sir.

4 Q. Do you recognize that exhibit?

5 A. Yes, sir.

6 Q. What is that exhibit?

7 A. So this is from me. I've never seen my email
8 like that. And it's going to Helicopter Operations, more
9 specifically Aja, who works down in Helicopter
10 Operations, generally who I'm dealing with. The CCs are
11 (WITNESS #21), the clerk there; (WITNESS #22), my
12 supervisor. The date that I sent it. And subject was
13 air patrols completed on this request number. So each of
14 our work orders that we process through our Helicopter
15 Operations is going to have a separate request number.

16 Basically saying that I completed the following
17 air patrols on 5/17: Wood Leaf-Palermo, Sly Creek Tap,
18 Forbestown Tap, Kanaka Tap, Caribou-Table Mountain, Bucks
19 Creek-Rock Creek-Cresta; Belden Tap, Oro Fino Tap on
20 5/17.

21 5/18 I completed Palermo-Colgate,
22 Palermo-Oroville number 2, Glenn 1, and the Elk Creek
23 Tap.

24 Stated that the following have not been
25 completed, will be rescheduled: Paradise-Table Mountain,
26 Poe-Rio Oso, Table Mountain Rio Oso.

1 My name, my phone number.

2 Q. Okay. Kind of illustrating the separate
3 incident, what we were talking about before, you schedule
4 so many lines in a day, you do what you can, then
5 sometimes for whatever reason you have to reschedule the
6 other; is that correct?

7 A. Correct.

8 Q. Those would be rescheduled within the same
9 quarter which they're due?

10 A. Yes, sir. Or if they're not going to be, then
11 we have to get superintendent approval. But I'm fairly
12 certain that I would have been able to get those within
13 the quarter.

14

15 (Grand Jury Exhibit 460 was introduced.)

16

17 Q. All right. We also talked about setting up
18 your helicopter schedule. You have in front of you
19 what's marked as Exhibit 460?

20 A. Yes, sir.

21 Q. Do you recognize Exhibit 460?

22 A. Yes, sir.

23 Q. What is Exhibit 460?

24 A. So this is more what gets put into Helicopter
25 Operations. This is a request number, like on the last
26 one that we were looking at where I was referencing a

1 request number. My name, phone number, vendor, what kind
2 of patrol, what kind of work we're doing, in this case
3 patrol. Patrol type is routine. We talked about
4 routine, non-routine. The approving supervisor, he's
5 going to have to approve it for them to get the
6 helicopter out.

7 This particular one was a short request,
8 meaning that I hadn't given them their ten days that they
9 liked to have in order to work with the vendors to get me
10 a helicopter. And then a lot of times I will actually
11 contact a vendor directly to make sure that they have
12 availability. Helps me to know which vendor I'm going to
13 be getting, and it helps heli-ops to know that they can
14 call just the one vendor and they've got a ship waiting
15 for me.

16 So that's basically what this is saying,
17 request less than ten days, reason for request, contacted
18 vendor for available dates.

19 Once again, we've got pickup location, that's
20 A&P headquarters, Richvale Airport.

21 These are lines that I'm going to be looking
22 at. Grizzly-Tap, Grizzly-Tap. Listed twice because a
23 portion of that is owned by Santa Clara, City of Santa
24 Clara. Another portion of it is, I think, owned by us.
25 I'm not positive who owns that piece. But, yeah,
26 basically two or three structures. Caribou-Palermo,

1 Plumas-Sierra Tap, Butt Valley-Caribou.

2 Q. So that's the same line that we heard earlier,
3 Butte Valley?

4 A. Yes, sir.

5 Q. Caribou-Palermo number 2.

6 And listing who is going to be on the flight.
7 Myself and (WITNESS #6). Passenger weight, I was a
8 little more honest this time. Estimated hours of use.
9 Whether we want doors off on the helicopter.

10 This is during the summer months, so sometimes
11 you want to have the doors off in order to get some air
12 in there. Most helicopters don't have air conditioning,
13 and so if you're flying 90-degree weather, it's really
14 hot in there. If you take the doors off, you can get
15 some air through there. The drawback is that if you have
16 any loose items, they can fly out of the aircraft. So
17 you have to make sure that you keep everything secure.
18 Once again, having lots of paperwork or such is not a
19 good idea.

20 Q. So you guys fly all year round; right?

21 A. Yes, sir.

22 Q. You have patrols scheduled throughout the year?

23 A. Yes, sir; first, second, third quarter, fourth
24 quarter.

25 Q. You also have your non-routine --

26 A. Yes, sir.

1 Q. -- basically whenever something comes up?
2 A. Yes, sir.
3 Q. So are you flying during the wintertime?
4 A. Yes, sir.
5 Q. Good weather or bad?
6 A. If they will fly, we will probable be next to
7 them. There's a lot of situations for a flight it's just
8 not advisable.
9 Q. Probably not in the middle of a storm, right,
10 or anything like that?
11 A. No.
12 Q. So if something happens on one of the lines in
13 the middle of a storm, what do you do?
14 A. Go up there at night.
15 Q. Okay. What date were you scheduling patrols
16 for here?
17 A. This is going to be for September 11th, 2018.
18 Q. Okay. So this is the third quarter of 2018,
19 aerial patrols?
20 A. Yes, sir.
21
22 (Grand Jury Exhibit 461 was introduced.)
23
24 Q. We'll move on to Exhibit No. 461, you should
25 have in front of you up on the big board.
26 A. Yes, sir.

1 Q. Do you recognize Exhibit 461?

2 A. Yes, sir.

3 Q. What is Exhibit 461?

4 A. Exhibit 461 is an email from myself. Once
5 again, Helicopter Operations, Aja and (WITNESS #22), CC'd
6 to (WITNESS #21), our clerk, (WITNESS #6), the other
7 transmission troubleman for the area. Sent on the 11th,
8 2018, 5:32 p.m., regarding the prior exhibit we just
9 looked at.

10 And, "Aja, due to weather conditions Feather
11 River Canyon, high winds, we were unable to complete
12 many of the scheduled line patrols for 9-11-18. Grizzly
13 Tap was completed. Caribou-Palermo incomplete; patrolled
14 from Palermo 01 to Belden 8 over 67, approximately 47 to
15 55. Plumas-Sierra Tap not patrolled. Butt
16 Valley-Caribou not patrolled. Caribou number 2 not
17 patrolled.

18 Q. Okay. Let me stop you right here.

19 A. Yes, sir.

20 Q. So all of these -- Grizzly Tap,
21 Caribou-Palermo, Plumas-Sierra, Butt Valley-Caribou,
22 Caribou number 2 -- these are all upcanyon; correct?

23 A. Yes, sir.

24 Q. So weather caused you to stop your patrols
25 going up the canyon?

26 A. Yes, sir.

1 Q. I'm going to assume based on this you started
2 off at Palermo and you were working your way up the
3 Caribou-Palermo when weather made it impossible to
4 continue?

5 A. Yes, sir.

6 Q. So you've scheduled the entire day, now you
7 can't do what you had scheduled because of weather, so
8 what do you do?

9 A. We returned to the valley floor and completed
10 the following lines scheduled for 9/19 on request 18,
11 dash, 01227. Completed the Oroville-Table Mountain
12 number 3; Oroville-Table Mountain; Palermo-Pease; and
13 Oroville-Thermalito-Table Mountain 1.

14 Q. So you couldn't do what you had scheduled
15 because of weather, so you, fair to say, you went to do
16 what you could do?

17 A. Yes, sir, advanced those.

18 Q. So you rescheduled, finishing the
19 Caribou-Palermo and doing the other upcanyon lines that
20 you weren't able to do?

21 A. Yes, sir.

22 Q. At the bottom, "I will be submitting a new
23 request for Cresta-Rio Oso"?

24 A. Yes, sir.

25 Q. Do you remember, did you eventually do
26 Cresta--Rio Oso?

1 A. I'm certain I did, but I couldn't tell you what
2 day.

3
4 (Grand Jury Exhibit 462 was introduced.)

5
6 Q. Exhibit 462. Do you recognize this one?

7 A. Yes, sir. That's going to be a, one of my
8 timecards.

9 Q. Explain to us how to read your timecard.

10 A. My name, date that this timecard applies to, my
11 employee ID number. Comments is generally where I will
12 write what I did that particular day.

13 Go down here, these are going to be how I break
14 up the time, how I'm going to charge. So Caribou-Palermo
15 06:30 to 10:30, four hours, receiving order number. Of
16 course we didn't take off to do an air patrol at 06:30 in
17 the morning, but the ferry time and setup time associated
18 with the job is charged to that job.

19 My first job that morning was to do an air
20 patrol on the Caribou-Palermo. So I met the pilot, I
21 believe the request had 7:00 o'clock. And we do a short
22 briefing, get up in the air. And I'm finished with the
23 Caribou-Palermo 10:30. Move on to Grizzly Tap. Do that
24 from 10:30 to 11:00. There's two separate orders for the
25 Grizzly Tap, because you remember --

26 Q. Right.

1 A. -- one because it belongs to the City of Santa
2 Clara, the other one I believe belongs to PG&E. So we
3 have to have accounting for both of those. We have to
4 charge time to prove that we actually were there.

5 Q. Okay. Which brings us to the next question.
6 We don't need to go through all of this, but why on your
7 timecard are you lining out all the individual tasks that
8 you're doing that day?

9 A. They all have separate quarter numbers. And if
10 you try and close one of those order numbers without
11 having time associated with it, it's basically going to
12 send back an hour, looks like, well, either you're not
13 charging to the right order, doing what you say you're
14 doing, or it hasn't been done.

15 Q. Okay. Go back and define a couple terms you
16 used. You talked about "ferry time"?

17 A. Yes, sir.

18 Q. What is ferry time?

19 A. So that's basically the time it takes to get
20 from where you're going to start from to where you're
21 actually going to actually do the work. So if I'm
22 starting from A&P headquarters, that's not where
23 Caribou-Palermo is. Caribou-Palermo starts -- either
24 start at Caribou or you can start at Palermo, but you
25 have to get there. So the time it takes to get from
26 where you're taking off to where you're going to start,

1 that's ferry time.

2 Q. So based upon the exhibits we looked at
3 previously, we determined that on 9-11-18 you started at
4 the Palermo sub working at 01, and you were working your
5 way up the canyon basically to Belden when you had to
6 change plans because of the weather; correct?

7 A. Yes, sir.

8 Q. So the ferry time was the time it takes you to
9 fly from A&P's airstrip in Richvale to the Palermo sub;
10 is that correct?

11 A. Yes.

12 Q. My understanding?

13 Okay. And then you have your start time on the
14 Caribou-Palermo at 6:30. We know from the previous
15 exhibits that you were meeting a helicopter at 7:00
16 o'clock?

17 A. Yes, sir.

18 Q. So can you explain to us the difference between
19 6:30 and 7:00 o'clock, why that difference?

20 A. It's 30 minutes. No. So the reason that you
21 have that 30-minute difference is because I'm showing up
22 at the yard at 6:30, my helicopter is scheduled to take
23 off at 7:00 o'clock. That's what time he's ready to
24 start rotors, full blades, we get up in the air.

25 So from 6:30 to 7:00 I'm basically driving over
26 to A&P, which is only like a ten-minute drive. So we

1 have a pre-Tell Board briefing. He's going to give me a
2 briefing on the safety features of helicopter -- fire
3 extinguisher location, first aid location, how to shut
4 off the fuel, shutting off fuel prior to pulling all the
5 fuses and/or raking back all your power. And I get this
6 speech every time.

7 Q. That was going to be my next question.

8 A. Which is good, which is good. It definitely
9 keeps safety at the forefront. But, yeah, it takes a
10 little while to get through.

11 Q. All right. By the way, most of these we've
12 seen in here are A&P?

13 A. Uh-huh.

14 Q. Do you get to choose which helicopter vendor
15 you use?

16 A. When we submit a request to Helicopter
17 Operations, if we prior contacted a specific vendor,
18 we'll tell them we've contacted that vendor, they've
19 penciled us in. One of the reasons I like using A&P is
20 they are close, I know the pilots. If I leave it up to
21 Helicopter Operations just to schedule me a ship or get
22 me a pilot, then I could end up with a pilot that I
23 haven't flown before. Especially when I'm going up in
24 the canyon, there are a lot of flight hazards up there
25 that if you have a green pilot, or if you have a green
26 troubleman, can really get you in a jackpot in a bad way.

1 So it's nice to have a pilot who knows those
2 hazards, knows what's, what to expect as he's coming
3 around one of the corners up there. You know, whether --
4 if you have a green pilot up there and he comes around
5 the corner, all of a sudden it's pushing his helicopter
6 down because of the downdraft, you could end up being in
7 a bad situation.

8 Q. So you have some control over what pilots are
9 going to fly your patrols?

10 A. Not specifically. I know transmission
11 troublemen who will request a specific pilot from a
12 specific vendor. I don't do that. I generally like all
13 the pilots that they have over at A&P. They only have --
14 well, I guess they're getting more now. They really only
15 had like four pilots.

16 Q. So you're comfortable flying --

17 A. Yes.

18 Q. -- in the canyon --

19 A. Yes.

20 Q. -- with all of those pilots?

21 A. Yes, sir.

22 Q. They all, to your knowledge, have a great deal
23 of experience up there and know where the hazards are?

24 A. Yes, sir.

25

26 (Grand Jury Exhibit 463 was introduced.)

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Q. All right. Okay. Let's get on to your 2018 aerial patrol of the Caribou-Palermo. You have in front of you 463. Do you see that document?

A. Yes, sir.

Q. Do you recognize Exhibit 463?

A. Yes, sir.

Q. What is Exhibit 463?

A. 463 appears to be a Caribou-Palermo air patrol.

Q. We've already walked through the front page, how to read that. Let's go ahead to page 2. And let me know -- you have page 2 in front of you?

A. Yes, sir.

Q. What is page 2?

A. Page 2 is going to be the priors. So those are preexisting conditions.

Q. Okay. The first one up here that's listed is Caribou-Palermo non-routine ground patrol?

A. Yes, sir.

Q. Do you know what that is about?

A. That is going to be in relation to either a momentary or other condition that required us to go out there and do a ground patrol. All ground patrols are supposed to be set up as a priority B, meaning a 30-day -- or a 90-day.

Q. Ninety-day.

1 A. But, generally, a non-routine ground patrol
2 gets completed the same day you're filling out the work
3 order for it. It's put as a priority B so we can have
4 all the accounting or your time charged and everything
5 else. Basically assign that order before we close the
6 order.

7 This one, for some reason or another, was set
8 up with a one-year due date. I can't explain that. I
9 would have to actually look at the notification and/or
10 order number.

11 Q. Okay.

12 A. Figure out what that was for.

13 Q. Just to make sure, we'll clarify for this, that
14 doesn't mean that you're supposed to do a non-routine
15 ground patrol instead of your air patrol?

16 A. No, sir. These are open work orders. These
17 are things that aren't -- you don't need to write -- the
18 non-routine ground patrol is a little bit confusing to
19 have in there.

20 Q. Right. That's why I wanted to explain it.

21 A. Right.

22 Q. So it's clear that that -- all right.

23 So let's move on to page 3. Looking at the
24 Transmission Line Inspection Data Sheet.

25 A. Yes, sir.

26 Q. Now we've added an O-H to the end of that

1 statement. Do you know what the O-H means?

2 A. I believe it stands for overhead. I couldn't
3 tell you 100 percent for certain what their intention
4 was.

5 Q. All right. So walk us through your data sheet
6 for 2018.

7 A. Inspector name, (WITNESS #18). Date inspection
8 completed, 9/19/18. Miles inspected, 62. Number of
9 structures inspected, 457.

10 Q. Let me stop you right there, because this is
11 the third one of these annual patrols, we've had a
12 different number of structures for each patrol?

13 A. Okay.

14 Q. Why would the number of structures vary?

15 A. As I stated before, on an aerial patrol I'm
16 taking this number and putting it there, because I'm not
17 keeping a structure count. The only aerial patrol where
18 I was actually keeping an accurate structure count that
19 we've seen so far would have been that first one in 2002
20 where that was my responsibility, that was my main focus
21 was to get a structure count and framing. These -- I
22 don't have the paperwork in front of me. The only thing
23 that I am taking with me in the helicopter is the last
24 sheet we were looking at, the priors.

25 Q. Okay.

26 A. So I don't even know how many structures

1 they're saying exist on this line. I know where this
2 line starts, I know where this line ends. And that's
3 where I'm going to go is from start to end. When I get
4 back into the office on an aerial patrol, I'm putting
5 this number to there.

6 Q. All right. So looks like you found two
7 problems?

8 A. Yes, sir.

9 Q. What were those problems?

10 A. Structure 2 over 22, facility. The insulator
11 damaged, no good. Action, replace. Priority E. Replace
12 damaged insulator.

13 And this is my writing here because we moved to
14 the iPad, so I had the SAP number, the actual work order
15 number, available for me to put in there.

16 Q. And you're talking about the "Notification
17 Number" column now?

18 A. Yes.

19 Q. Earlier we talked about that that was --

20 A. That was done --

21 Q. -- filled out by the secretary. Now you've
22 gone to an iPad system, and you are the one who is
23 actually filling out that column?

24 A. Yes, sir.

25 Q. Explain to us briefly how the new iPad system
26 works.

1 A. So the way the iPad works is it has a
2 geographical map on it with your lines, your different
3 transmission lines. You can zoom in and get to a
4 structure. You click on that structure, you can report a
5 problem with it. Click on another box, it will say, do
6 you want to report a problem on the structure, or do you
7 want to report a problem on the insulator, or do you want
8 to report a problem on the entire line, or do you want to
9 just report a problem for those GPS coordinates? If you
10 pick, select one of those boxes for an insulator, it
11 would -- they have a separate drop-down for insulator,
12 you select insulator.

13 It will then ask you what kind of damage it has
14 on there. That's another drop-down that you can
15 basically put in there that it's no good -- very generic
16 term. They didn't want to have, you know, 50 different
17 damage codes for each component, because it can be
18 rusted, it can be chipped, it could be flashed, it could
19 be broken, it could be nonexistent. So they just
20 basically go no good, out of standard.

21 What you, what needs to happen at that
22 location, whether you can repair it, or whether you have
23 to replace it, or whether it's missing for some of them,
24 or whether something new needs to be installed.

25 Your priority. We talked about you have a
26 30-day, 90-day, one-year, two-year, based on the

1 lettering.

2 And then on the iPad you actually have another
3 box where you will write in your comments on something
4 like this.

5 Q. Okay.

6 A. You will hit "submit" on there. That will send
7 it off to -- you have to attach some digital photos to
8 it, but you've taken those with the iPad or you've taken
9 them with a separate digital camera and transferred those
10 over to the iPad, and it will submit all that information
11 into our SAP system, and it will give you a notification
12 number.

13 Q. Great. "Inspector Signature," is that your
14 signature at the bottom?

15 A. Sir, yes, sir.

16 Q. Finally, "Supervisor Signature," do you
17 recognize that?

18 A. Not much to recognize, but that is (WITNESS
19 #22's) signature.

20 Q. All right. A new page.

21 A. Yes, sir. That's a new form.

22 Q. Page 5?

23 A. Yes, sir.

24 Q. Please explain it to us.

25 A. On -- if you remember back on the 2002, we had
26 the detailed object list, which listed all the structures

1 on there. The one just prior to this, we have this form
2 on there, I just wrote on the form that I inspected from
3 structure such and such to such and such with no
4 additional findings. This is a breakdown of that little
5 note that I had on there. Basically who inspected, what
6 date was inspected, and what structures they inspected on
7 that date.

8 On this particular one, we started the flight
9 on September 11th and completed the patrol on September
10 19th.

11 Q. That's what we already talked about in terms of
12 your helicopter scheduling, going back to the emails that
13 were --

14 A. Yes, sir. Due to weather conditions, we were
15 unable to complete it.

16
17 (Grand Jury Exhibit 464 was introduced.)
18

19 Q. So moving on, Exhibit 464, do you recognize
20 Exhibit 464?

21 A. That would be a tag that was generated off the
22 iPad that is now being printed on a new format.

23 Q. Okay. What do you mean when you say a tag?

24 A. A work order.

25 Q. All right. Is this work order based upon
26 problems you found during the 2018 inspection of the

1 Caribou-Palermo 115 kV line?

2 A. Yes, sir.

3 Q. And which problem does this work order relate
4 to?

5 A. Well, here you can see that reported by J3S2.
6 That is my LAN ID. The date I found it. If you look up
7 here on the equipment, it's going to be ceramic
8 insulator. It's going to tell you that the insulator is
9 based off of a steel tower. The damage code is no good,
10 out of standard. And the required is repair. Oh.
11 Normally you don't repair an insulator, but this -- if
12 you look down here, this is the -- that last box on the
13 iPad that you can write in there, it says, "Hold-down
14 insulator string has come loose from tower, need to
15 reattach/replace hold-down wire."

16 Q. So basically this form contains all the
17 information that you were telling us that you input into
18 the iPad as you're doing the inspection --

19 A. Yes, sir.

20 Q. -- or the patrol?

21 A. Yes, sir.

22 Q. All right. When you find problems, do you
23 photograph them?

24 A. Yes, sir.

25 Q. And how do you do so?

26 A. I do so with a digital camera.

1 Q. Is that something that the company provides to
2 you or your own?

3 A. This particular instance, the original camera
4 that they had didn't meet my needs, so I decided I was
5 going to purchase one on my own.

6 Q. What about the iPad?

7 A. The iPad is provided by the company.

8 Q. Can you use it to take pictures?

9 A. Yes, but they're very low quality.

10 Q. So you choose, you choose to use your own
11 equipment for better quality; is that correct?

12 A. Yes, sir.

13 Q. This problem with the hold-down on tower 27
14 over 221, did you take photographs?

15 A. Yes, sir.

16

17 (Grand Jury Exhibit 465 was introduced.)

18

19 Q. Next up is Exhibit 465. Do you recognize the
20 photograph marked as Exhibit 465?

21 A. Yes, sir.

22 Q. What is the photograph marked as Exhibit 465?

23 A. That is going to be a picture of the tower in
24 question on the work order. Basically, we -- I try and
25 take a minimum of two pictures, one to show the overall
26 structure and/or the surrounding area so that the work

1 crews can figure out how they're going to access the
2 structure, whether there's anything that's going to cause
3 them problems when they're trying to do the repair.

4 So this is going to be the farther out and/or
5 -- I think the company started turning across the street
6 view. You can see the shadow of the helicopter right
7 there.

8 Q. Yep. See the shadow right here in the center.
9 And we zoomed in on this photograph on the big board.

10 A. Uh-huh.

11 Q. This is tower 27/221?

12 A. Yes, sir.

13 Q. Now let's get a little -- lost the word I
14 wanted -- kind of explain what we're looking at here.

15 A. Can we go to the next picture? Or do you want
16 me to use that one?

17 Q. No, just kind of show us --

18 A. So the wire is coming in. This is going to be
19 a suspension tower. We have some hold-down insulators,
20 because the actual wire weight on this location has got
21 high tower over here, we've got a high tower over here,
22 so the wire doesn't have as much down strain as we
23 normally would have in a suspension configuration. So
24 the wire has a tendency to float. It especially has a
25 tendency to float if you have a bunch of snow and/or ice
26 load. It suddenly unloads. At that point, it could

1 create a large updraft in the wire actually almost
2 smashing to the tower or causing these insulators, which
3 are basically held via gravity, to separate if the cotter
4 keys aren't in exactly the right position.

5 So we have hold-down insulators to prevent that
6 happening. It's not that the wire is floating right
7 there, it's just that it doesn't have as much down strain
8 as we would like to see. So that's why you have these
9 hold-down insulators on the tower.

10 Q. All right. So our line is running from lower
11 right-hand corner of the photograph to the upper
12 left-hand corner; correct?

13 A. Yes.

14 Q. Down here in the lower right, supply side?

15 A. This is going to be towards Caribou, that's
16 going to be towards Palermo, just basing that off of this
17 view right here and my recollection. If I'm wrong, just
18 tell me that I'm wrong.

19 Q. All right. So let's move on to the next one.

20 A. Okay.

21

22 (Grand Jury Exhibit 466 was introduced.)

23

24 Q. 466. Photograph marked as Exhibit 466.

25 A. Yes, sir.

26 Q. Do you see that photograph?

1 A. Yes, sir.

2 Q. Tell us what we're looking at in Exhibit 466.

3 A. So I have a decent zoom on my camera, generally
4 try and zoom it all the way in, take a picture of the
5 actual problem. And in this case the actual problem was
6 this wire right here is supposed to be attached right
7 there. It's no longer attached. These insulators are
8 floating.

9 Q. Why is that a problem?

10 A. As we, as I was just explaining, there's not
11 enough down strain at this particular tower to ensure we
12 don't have additional problems with the insulators
13 slapping into the tower. Or if there's a cotter key
14 that's not precisely lined up, the insulators could
15 separate, and then it would be a free-floating wire.

16 Q. Okay. So why is this a priority E tag as
17 opposed to something more urgent?

18 A. In my judgment, this is a situation where you
19 need to get it fixed, but it doesn't need to be done
20 within the next 90 days. I don't know whether I
21 truncated the actual due date to say that it needed to be
22 fixed before winter, because that is a true situation
23 that I would be looking at. But I know I did talk to the
24 crew foreman about this particular tower, saying, "Hey,
25 we should probably get this before winter." That's where
26 you would have that snow load, ice load create that

1 weight in the wire. That could cause big problems.

2 Q. Okay. I want to go to another view. This is a
3 photograph that's already been identified as Exhibit 195.
4 Should be in the stack right there in front of you. And
5 I have it displayed on the big board.

6 A. Yes, sir.

7 Q. View taken later. Besides the hanger wire
8 being disconnected, do you see other problems with that
9 tower?

10 A. Yes, sir. There's obviously some bent steel in
11 there.

12 Q. Describe for us the problems that you see.

13 A. Well, this is out of whack. The quality of the
14 photo, without being there, I can't tell what caused
15 that. I can't tell what caused this down here. But
16 there's obviously some steel problems with that arm.

17 Q. When you say, talked about "I don't know what
18 caused that, or what caused this down here," you were
19 referring to the bends in the tower arm itself?

20 A. Yes. Yes.

21 Q. Okay. And then on to what's been, already been
22 entered into exhibit as Exhibit 196. It's identified as
23 the opposite tower arm. Do you see any problems with
24 that tower arm?

25 A. Appears to be some bending in that arm as well.

26 Q. Now, when you were doing the patrol in '18, you

1 identified that the wire was disconnected?

2 A. Yes, sir.

3 Q. How come you didn't see the bends and things in
4 the tower arms?

5 A. If you go back to those pictures, that is --
6 the camera that I have is actually same magnification
7 that my binoculars have. So the view that you can see
8 right here is the same view that I'm going to be able to
9 see with my binoculars.

10 If you remember, on this date we actually had
11 to break this flight up because of weather concerns. So
12 on this day it was very windy, there was -- and when you
13 deal with a windy day like that, you can still complete
14 the patrol, but you're going to have to increase your
15 altitude and your distance away from structures. That's
16 because if you do end up having a rogue wind, a down
17 draft or something like that, if you're traveling your
18 typical 30 to 40 foot off the structure, it can actually
19 push you into the structure.

20 So on a day like this where it's bad weather,
21 you're going to increase that distance to, you know, 80,
22 90 feet. So when you zoom in like this picture right
23 here is zoomed in, can't really see that bend in that
24 arm.

25 The other thing is that this arm is not really
26 supporting any weight other than when you run into one of

1 those situations like I, what I was talking about, the
2 snow unloading or different type thing, where it's going
3 to affect where that wire is laying. So structural
4 damage on this arm isn't -- I'm not going to say that
5 it's not critical, but it doesn't need to be addressed
6 before your insulator needs to be reattached to it. In
7 addition to that, when the crew goes out to reattach
8 this, that's when they would notice the structural damage
9 on the arm. But no, I couldn't see that from the air.

10 Q. Who would do the reattachment work?

11 A. The reattachment work would be done by our
12 transmission line crew. The steel work, that would be
13 done later. Probably at the time they wouldn't be able
14 to replace that steel on the spot, it would be done by
15 our Tower Department.

16 Q. So going back to 195 and 196 --

17 A. Yes, sir.

18 Q. -- you talked about these were, that this
19 problem was given an E tag --

20 A. Yes, sir.

21 Q. -- to do within a year, but you said you were
22 concerned that you wanted to get this done before
23 wintertime; correct?

24 A. Yes, sir.

25 Q. But, obviously, this photograph is dated
26 November 11th, 2018, the work still hadn't been done;

1 correct?

2 A. That line is no longer in service, sir.

3 Q. Right. But it was still in service as of
4 November 8th; correct?

5 A. Yes.

6 Q. It was de-energized as a result of the Camp
7 Fire; correct?

8 A. Yes, sir.

9 Q. So at the time the Camp Fire occurred, that
10 problem that you saw in September had not been remedied
11 yet; correct?

12 A. That is correct.

13 Q. Okay. Speaking of November 8th, let's talk
14 about November 8th itself. Were you on duty with PG&E on
15 November 8th?

16 A. Yes, sir.

17 Q. What was your assignment for November 8th?

18 A. My assignment was I believe I was doing a
19 ground, detail ground inspection on the Glenn 4, I
20 believe. I couldn't -- I'd have to look at my timecard.
21 But that's how I was initially starting out my day. Then
22 I received a phone call from my boss saying that there
23 was a relay on the Caribou-Palermo line. He had (WITNESS
24 #6), who normally takes the Feather River Canyon area, he
25 had been up all night at a switch up by Paradise-Table
26 Mountain DUR, public safety power shut off, in case he

1 needed to open up that switch. So he wanted me to go get
2 in a helicopter to go see if I could find out what caused
3 the relay event on the Caribou-Palermo.

4 Q. And he being (WITNESS #22)?

5 A. (WITNESS #22), yes.

6
7 (Grand Jury Exhibit 467 was introduced.)

8
9 Q. Okay. So you have in front of you Exhibit No.
10 467. If you could take a look at that document.

11 A. Yes, sir.

12 Q. Do you recognize that document?

13 A. Yes, sir.

14 Q. What is this document?

15 A. So this is a document that was sent out by our
16 boss (WITNESS #22) to myself, (WITNESS #6), and (WITNESS
17 #19), who is the electric crew foreman, or was the
18 electric crew foreman on the crew. And it's from System
19 Protection, basically trying to tell us where the fault
20 locations were for our relay event.

21 The estimates were, line at the time of outage:
22 Caribou-Palermo 115, 6:15 phase involved. In fault,
23 phase C to ground. Says CG, but that's what it means,
24 phase C to ground. That is a multi-terminal line,
25 meaning that it has a split. Basically comes down the
26 canyon from Caribou Powerhouse and it has a hard tap on

1 to it, meaning that there is a -- there is not any
2 protection in between the tap line and the main line
3 there at Bucks Creek Powerhouse, that's where the Grizzly
4 Tap comes in.

5 And from that point, the way that they're
6 figuring out their relay information is based on
7 conductor size, time resistance. And when you put those
8 two values in, you're going to come up with one location
9 on this tap and another location on the other tap.

10 So they gave us two locations, one being near
11 Grizzly Powerhouse at structure 0 over 3; and the other
12 location being near Big Bend, structure 37 over 303.
13 Their accuracy, based on their equations, were plus or
14 minus two miles.

15 Q. Okay. So this came in to you at 7:56 a.m. and
16 23 seconds from (WITNESS #22)?

17 A. Yes, sir.

18 Q. And this indicates that there was a problem on
19 the Caribou-Palermo at 6:15 a.m?

20 A. Yes, sir.

21 Q. And they want you to go up in a helicopter and
22 go find the problem?

23 A. Yes, sir.

24 Q. After you talked to (WITNESS #22), describe for
25 us what you did.

26 A. So I was headed towards Oroville Airport to get

1 into a helicopter. He called me back later, said that
2 they're -- I can't remember whether he called me or
3 texted me, but there was some problems getting a
4 helicopter, and he wanted me to go up there on the
5 ground. I drove up to Concow, basically saw the smoke
6 plumes from there, contacted him again to try and figure
7 out whether we were going to get a ship. He was still
8 working on it. And so then I drove down to Rock Creek --
9 or Poe Power Dam, which is just before Cresta Powerhouse,
10 and from there you can see across the river and up on the
11 hill slope/, behind a hill, you could see that that's
12 kind of where the fire seemed to have originated from.

13 Q. What made you think that the fire originated in
14 that location?

15 A. It was a very, very windy day. All of the
16 smoke was being blown out of the canyon, so that would be
17 towards the east. So if you go to the far west end of
18 where the smoke begins, that's kind of like where you're
19 figuring it started.

20 Q. Okay.

21 A. It wasn't -- in that kind of wind, it wasn't
22 going to burn upwind.

23 Q. Eventually were you able to secure a
24 helicopter?

25 A. Yes, sir.

26 Q. Do you recall approximately what time?

1 A. I think it was right around 10:00 or 11:00
2 o'clock.

3 Q. And were you able to fly up into the canyon?

4 A. Yes, sir. We contacted Cal Fire to make sure
5 that it was okay with them if we went up to that area.
6 They gave us the okay to do it. We flew up there. It
7 was very, very windy. Once again, you're dealing with a
8 helicopter in high-wind situation, but we were able to
9 get to that location and, couple low passes, and we were
10 able to find it.

11 Q. It being what?

12 A. The -- we were able to find damage on
13 Caribou-Palermo tower 222.

14

15 (Grand Jury Exhibit 468 was introduced.)

16

17 Q. Okay. Should have in front of you Exhibit 468
18 for identification. Do you recognize Exhibit 468?

19 A. Yes, sir.

20 Q. And what is 468?

21 A. 468 is another work order repair ticket related
22 to Caribou-Palermo. It's set up a little bit different
23 because it was a fire-type work order. If you look up
24 there in the word type, it says "Emergency
25 storm-related." They consider fires to be storms as
26 well. And this is the work order for a non-routine,

1 which is what I was doing in the helicopter. It's an
2 emergency, but, once again, we classify emergencies as
3 non-routine.

4 Q. Okay. And then down on the bottom, on the long
5 text, it says, "Line was flown on 11/8/18 when damage
6 found at tower 27/222. Flown again 11/9/18 to assess
7 damage," and so on.

8 A. Uh-huh.

9 Q. Did you fly the line on those days?

10 A. Yes, sir. I flew it 11/8, 11/9, and 12/12.

11 Q. When you flew the line on 11/8, on November,
12 the morning of November 8th, and you located the damage
13 on tower 27/222, did you photograph the damage?

14 A. Yes, sir, I did.

15 Q. And what did you use to photograph the damage?

16 A. My digital camera.

17 Q. The digital camera that we talked about earlier
18 that you had purchased --

19 A. Yes, sir.

20 Q. -- to help you?

21 What happened to those photographs?

22 A. They were on a flash card or SD card and they
23 were given to John Daly with PG&E.

24 Q. Did you retain any copies of those photographs?

25 A. In order to put them -- I, I basically copied
26 them from my camera to my iPad.

1 Q. Okay. And all of those photographs should be
2 in possession of PG&E?

3 A. Yes. And they have them in my iPad as well.
4

5 (Grand Jury Exhibit 469 was introduced.)
6

7 Q. Okay. All right. Let's go on to Exhibit 4,
8 Exhibit 469. Do you recognize Exhibit 469?

9 A. Only vaguely. I've never seen texts the way
10 that you decided to put it in here.

11 Q. Do you recognize the phone number (530)
12 356-0766?

13 A. That is my phone number, my cell phone number.

14 Q. Do you recognize the phone number (530)
15 228-1479?

16 A. I believe that's my supervisor's phone number,
17 (WITNESS #22).

18 Q. All right. This shows it's a text message sent
19 on November 8th. And the body says, "There's damage on
20 Caribou-Palermo tower 222"?

21 A. Yes, sir.

22 Q. Do you recall sending that text to your boss,
23 (WITNESS #22)?

24 A. Yes, I do.

25 Q. When do you recall sending that text?

26 A. When I was in the helicopter. I don't know

1 specifically what time.

2 Q. That's all we need. You were sending it from
3 the helicopter, updating your supervisor?

4 A. Yes, sir.

5

6 (Grand Jury Exhibit 470 was introduced.)

7

8 Q. All right. And next up, 470. Do you recognize
9 470?

10 A. It appears to be another text from me to
11 (WITNESS #22).

12 Q. All right. Continuing the same conversation?

13 A. Yes, sir.

14 Q. And what are you telling (WITNESS #22) in this
15 text?

16 A. Appears I'm telling him wire on tramp tower.

17 Q. What does that mean?

18 A. That means that that is the damage that we have
19 on tower 222, is the wire is basically out of place in
20 the tramp tower.

21 Q. Okay. Describe for us now at this point what
22 damage you saw in 222 when you got there on November 8th.

23 A. So we flew by, I saw that the insulator was not
24 in the right position. At that point, we did, we had to
25 make several passes in order to get in a location where I
26 could see the actual damage. It was very windy. But

1 then, when I was able to eventually figure out what had
2 happened, the insulator appeared to have separated from
3 the tower.

4 There's a hanger arm. Where the transposition
5 jumper comes out, you have insulators that hang down from
6 that hanger arm. And one of the insulators from that
7 hanger arm had separated from the tower, folded upside
8 down, and smashed against the tower leg. You could tell
9 it smashed against the tower leg because the insulators
10 were broken. And although the wire wasn't resting on the
11 tower at that point, it looked, looked to me as if the
12 wire would have actually struck the tower.

13 Q. In your experience, 24 years now with PG&E, 20
14 years as a lineman or troubleman, is it a bad thing for
15 an electrified conductor, a 115 conductor, to make
16 contact with a steel tower structure?

17 A. Yes.

18 Q. Why is that?

19 A. It's going to get a ground. All the steel
20 structures out there, they're all grounded. And they're
21 grounded for safety reasons. If we have wire that comes
22 off a tower or isn't where it's supposed to be and it
23 doesn't go to ground, it doesn't shut itself off, then
24 you have a wire that's out there just waiting to do all
25 sorts of havoc. It could lead to fatalities. It could
26 lead to structure damage. It could be a very bad thing.

1 Q. All right. Now, you said you flew the line
2 again on November 9th?

3 A. Yes, sir.

4 Q. Why did you fly the line on November 9th?

5 A. I was trying to finish up the Caribou-Table
6 Mountain as well. We had several lines that locked out
7 on the 8th. I was unable to fly those. There was a
8 bunch of smoke in the area. We couldn't complete the
9 flight to figure out whether there was damage on those
10 lines as well.

11 The Caribou-Palermo and Caribou-Table Mountain
12 both go to Caribou Powerhouse. Caribou Powerhouse
13 supplies power to the city of Quincy. Without either of
14 those lines, it leads to an unstable situation for
15 electric system up there. And, generally, you'll have to
16 shut off all of Quincy if you don't have one of those two
17 lines energized. Both of those lines were de-energized
18 at that point. They had a specially trained operator
19 that went to Caribou Powerhouse, he was able to keep the
20 system on, but they wanted to get one of those two lines
21 back so they wouldn't have to have somebody sitting in
22 front of that control board 24/7.

23 I was unable to complete that on the 8th, so
24 there was a dual purpose for the 9th. The 9th was to try
25 and complete the patrol on the Caribou-Table Mountain to
26 get that line back energized, and they also wanted to

1 send an additional photographer up to take some
2 additional pictures of tower 222.

3

4 (Grand Jury Exhibit 471 was introduced.)

5

6 (Grand Jury Exhibit 472 was introduced.)

7

8 Q. Okay. So you have in front of you Exhibit 471
9 and 472. These are some more text messages between you
10 and the number you had previously identified as your boss
11 (WITNESS #22).

12 A. Yes.

13 Q. Do you recognize this conversation?

14 A. Yes, I do. And just shows that you should
15 never really be joking around as you're texting on a
16 company phone. Yeah. "Did the special guest show up
17 yet?" I was basically referring to the additional
18 cameraman.

19 Q. And the next one, "I guess I'll wait for them
20 and complete their mission first"?

21 A. Yes.

22 Q. Who is the "them"?

23 A. That would be the camera guy that is -- wanted
24 to take some additional pictures of 222.

25 Q. So why are you taking a camera guy up to look
26 at 222?

1 A. Because there was, there was thoughts at that
2 point that that could have started the Camp Fire.

3 Q. Who was this cameraman?

4 A. I did not get his name.

5 Q. How did you get hooked up with this cameraman?

6 A. (WITNESS #22) told me that I was going to be
7 taking an additional cameraman up there.

8 Q. Okay. All right. So let's go on. Let's
9 change topics up there real quick. We've got about eight
10 minutes before lunch. Let's see if we can finish up and
11 get you out of here by lunch.

12 Showing you what's been marked as Exhibit 193,
13 or what's in evidence I believe as 193, a picture of
14 C-hook and a hanger plate. Why does something like this
15 not get seen in your patrols?

16 A. Are we talking about patrols or inspections?

17 Q. Patrols first. Because you've only done
18 patrols on the Caribou-Palermo; correct?

19 A. Correct. So if you look at the steel that's
20 above the C-hook and the hanger plate, that is going to
21 block any view you would have from above. And if for
22 some reason you looked below, the insulator would be, the
23 skirt of the insulator would be blocking the view from
24 below. You'd have to be almost directly horizontal to
25 get a real good look at what is going on with this C-hook
26 and the hanger plate. And that's generally not something

1 you can do with a helicopter.

2 Q. How would you find wear like this?

3 A. The best way, to be quite honest with you,
4 would be a climbing inspection.

5 Q. To your knowledge, are climbing inspections
6 ever done?

7 A. They're done on triggering events.

8 Q. Okay. You've been a troubleman now since 2016;
9 correct?

10 A. Yes, sir.

11 Q. Have you done a single climbing inspection of a
12 transmission line in Butte County?

13 A. No, sir.

14 Q. What kind of events would trigger you to do
15 climbing inspections on a 115 kV line?

16 A. Failure that appears to not be specific to
17 another event. Meaning if you have a failure that is
18 cause for, that had been caused by degradation or
19 something other than outside force which caused that
20 failure, something that you can't identify as being an
21 outside source.

22 Q. For instance, going back here a ways, here
23 we've got, in Exhibit 195 we've got the hold-down wire
24 that's come unattached. Would that be considered a
25 failure?

26 A. That would be considered a failure.

1 Q. Would that trigger you to go back and look at
2 other towers like this and check their hold-down wires?

3 A. The crew that would go out to repair that, they
4 would be making that assessment at that time. So when
5 they, they have to climb that tower in order to repair
6 that, they would be looking at that, going, "Hey, we've
7 got another issue here with this, besides this piece of
8 steel which is rusted, which caused this steel guide wire
9 to part."

10 Q. Okay. Moving on, Exhibit 183, photograph of
11 C-hook and hanger hole on 20/160. It's been identified
12 as 20/160. Why is this not seen during an aerial patrol?

13 A. Once again, it would have to be just the right
14 angle.

15 Q. 184, same question.

16 A. Same answer.

17 Q. 37, Exhibit No. 37?

18 A. I'm a little, I think I'm lost.

19 Q. Let's see.

20 A. Went from 183 to 184, now we've got 251.

21 (Discussion off the record.)

22 A. I can just look on the screen.

23 Q. Exhibit 37.

24 A. Okay.

25 Q. Do you see a problem in there?

26 A. Yeah, it appears that it's worn in. However,

1 it's also got a different plate on there.

2 Q. Right. Have you ever seen these hanger plates
3 on transmission towers, or transposition towers in the
4 past?

5 A. I haven't really looked for them, but I'm sure
6 that I have seen them. I just wouldn't be able to tell
7 you where or when.

8 Q. So what's the problem that you see with this
9 insulator string hanger hole?

10 A. It's starting to wear through the hanger. The
11 insulator, the C-hook is starting to do some wear.

12 Q. Are you familiar with the term "elongation"?

13 A. Yeah.

14 Q. Do you see elongation in the hole here?

15 A. Yeah. The hole is definitely no longer
16 circular. It's starting to wear through the bottom.

17 Q. Why isn't something like this being picked up
18 in an aerial patrol?

19 A. You need to be at the right angle. So if
20 you're in a helicopter, there's -- to get this angle,
21 you're going to either need to be inside the tower, which
22 is not productive for the helicopter or yourself, or
23 you're going to need to be directly over the wire and
24 only feet or inches above the wire to look at this view
25 from the helicopter.

26 Q. Okay. Let's move on to 257. Do you see a

1 problem in --

2 A. Yes.

3 Q. -- that photograph? What problem do you see?

4 A. It's the same thing. The C-hook is wearing

5 through the hanger plate. And I don't know which one has

6 more wear, the C-hook or the hanger plate.

7 Q. Okay.

8 A. You'd have to take it apart.

9 Q. Why isn't something like this noticed during

10 your aerial patrols?

11 A. Once again, you have a steel member above it.

12 I would almost guarantee that this is going to be the

13 center phase, just based on what I can see there, which

14 means that you're going to have to be, once again, like

15 right above the wire, or you're going to be off to the

16 side, and the steel going to block it.

17 MR. NOEL: It's 12:00 o'clock. Do you guys

18 mind if we go a little bit into lunch to finish?

19 GRAND JUROR #18: Finish.

20 MR. NOEL: I'm seeing nothing but thumbs up and

21 positive signs. So we'll go ahead and go forward, try

22 and go quickly.

23 Q. (By MR. NOEL) 165 -- or 175. Exhibit 175. Do

24 you see a problem in this tower?

25 A. The quality of the photo isn't so great, but it

26 appears to be elongated on that same hole hanger arm.

1 And this is exactly what had failed on 222.

2 Q. Right. And this obviously isn't 222?

3 A. No, it's, it's off Bardees Bar.

4 Q. Probably 35/2811. Does that sound correct?

5 A. Probably real close to it.

6 Q. All right. You can see a lot of daylight

7 through that hanger hole --

8 A. Yes.

9 Q. -- correct?

10 A. Correct.

11 Q. That's not supposed to look like that?

12 A. No, sir.

13 Q. So why isn't that being picked up during the

14 aerial patrols from the helicopter?

15 A. You would have to be at the exact angle that

16 you're talking about right here with the daylight at,

17 exactly that. The position the helicopter would have to

18 be would be a hazardous position for yourself and the

19 helicopter.

20 Q. Okay. But, obviously, this photograph is taken

21 from a helicopter.

22 A. It was?

23 Q. Yep.

24 A. Well, then they've got a very good zoom lens.

25 Q. So it's possible to see these things if you get

26 yourself in the right position and you use the right

1 equipment; correct?

2 A. Did you know that that was what you were going
3 to look for?

4 Q. I can guarantee --

5 A. What about this bolt right here, is this a good
6 bolt?

7 Q. I don't know. I can tell you --

8 A. Does this bolt here look like a good bolt?

9 Q. That photograph was not taken by a PG&E
10 employee. That photograph was taken by a law enforcement
11 officer who has no training, no experience.

12 A. But he, he knew he wanted to take a picture of
13 that.

14 Q. Well, of that tower, yes.

15 A. Not just that tower. He wanted to take a
16 picture of that.

17 Q. So you could see all of that wear and tear, but
18 you don't; is that correct?

19 A. Possibly on that tower. Tower 222 that, I
20 don't know if you have any pictures of the same angle on
21 222.

22 Q. Okay. That's 222. There's Exhibit 37. That's
23 222.

24 A. Would it have been taken from a helicopter?
25 Was that taken from a helicopter?

26 Q. No, this was taken from inside the tower.

1 A. So you're asking me to compare a picture that
2 is taken from the tower --

3 Q. Right.

4 A. -- to a picture that's taken from the
5 helicopter at two different locations? I'm not sure what
6 you're after.

7 Q. No, I'm -- I mean, ultimately, like we've
8 talked about in the past, the question is why weren't
9 these conditions being seen and recorded prior to the
10 Camp Fire?

11 A. Didn't know that they existed. Obviously, if
12 we had, if I had seen a condition that warranted repair,
13 I would write it up. I'm sure that you've looked through
14 a lot of my paperwork. If I find a condition that
15 requires repair, I write it up.

16 Q. All right. Here's Exhibit 188. Do you see a
17 problem there?

18 A. Yeah.

19 Q. What problem do you see?

20 A. It's the same thing, elongation in the hanger
21 plate. And you've got wear in the C-hook.

22 Q. 176?

23 A. Same thing.

24 Q. Same problems.

25 191?

26 A. Yep.

1 Q. 185?
2 A. Uh-huh.
3 Q. Remember, we've got to answer out loud.
4 A. Yes. Sorry.
5 Q. You've done very well on that. We talked about
6 that yesterday. You've done a great job.
7 And 139?
8 A. Little bit more difficult to see, but yes, I
9 can see where there's a, probably going to be a problem.
10 Q. Okay. All right. Well, let's move on real
11 quick.
12 August of 2018, were you assigned to, by PG&E
13 to the Murphy fire?
14 A. I was one of the responding troublemen, yes,
15 sir.
16 Q. What does it mean to be one of the responding
17 troublemen?
18 A. So a page came out that we had a problem with
19 the Caribou-Table Mountain. And so when a page like that
20 comes out, they will send out transmission troublemen to
21 go see if they can find out why there was a momentary
22 and/or lockout event. So I was sent out, (WITNESS #6)
23 was sent out, a couple of distribution troublemen were
24 sent out because there was some fire in the area that was
25 going to be affecting the distribution assets.
26 Q. And what did you find when you arrived at the

1 area?

2 A. Initially, I couldn't find a whole lot because
3 I couldn't see through the smoke and the fire. But
4 eventually was able to see that there was a damaged
5 jumper on a double dead end tower on top of a hill.

6 Q. Like we already talked about, double dead end
7 tower, you've got conductor coming in from the supply
8 side, conductor going out from the customer side, and the
9 jumper is what connects the two of them; correct?

10 A. Yes, sir.

11 Q. Describe the damage you saw to the jumper.

12 A. It appeared to have parted close to, but not
13 at, a connector on the jumper. And I think the connector
14 was more towards the -- you called it the "customer
15 side," we call it the "load side" -- would have been
16 towards the Table Mountain rather than the Caribou side.

17 Q. What happens when a -- well, is the jumper
18 energized?

19 A. Well, it was. As the energized parts, it will
20 -- electricity likes to keep on flowing the way it was
21 flowing. So if you try and break that circuit or you try
22 and open that piece of wire, it's -- there's going to be
23 a very large arc, to the point where it could probably
24 even arc back to the steel tower or a ground source.

25 Q. So, just like we talked about in 222, you saw
26 that the insulator top becomes separated from the tower

1 arm, was hanging upside down, and the jumper made contact
2 with the steel structure?

3 A. Appears that it had, but I don't -- like I
4 said, I couldn't see any scorch marks from the
5 helicopter.

6 Q. And what about in the, in the Murphy Fire?

7 A. Murphy Fire, another individual went up there
8 and took some pictures of it, but I didn't actually go up
9 to the tower and take those pictures.

10

11 (Grand Jury Exhibit 473 was introduced.)

12

13 Q. We have up in front of you Exhibit 473 for
14 identification. Do you recognize 473?

15 A. Yes, sir.

16 Q. What is 473?

17 A. 473 is a form that a fire investigator asked me
18 to fill out. He had asked me if there was any issues
19 that we had with the line. And I told him that there
20 was, that there was an e-page sent out. And then he
21 asked me, "Well, what did the e-page say?" And I started
22 to describe it to him, and he asked me to write it down.

23 Q. Okay.

24 A. I was trying to be very forthcoming and
25 cooperative, so I wrote down what the e-page said. And
26 now it's, it's appearing with me again. Not that it says

1 anything bad.

2 Q. No, it doesn't. And the bottom here, is this
3 your signature?

4 A. Yes, sir. And that is my writing on the body
5 of the text.

6 Q. Okay. Just so that you've got it, we're
7 running out of time, so we're going to withdraw 474, 475,
8 476. We won't go into that.

9 But -- so you get up to the Murphy Fire,
10 eventually you see the tower, you see that a jumper has
11 become disconnected; correct?

12 A. Yes, sir. It appears part, yes.

13 Q. What action did you take as a result of finding
14 that damage?

15 A. I can't remember whether I created a tag or
16 (WITNESS #6) created a tag to repair that jumper.

17 Q. Okay. How about for other towers in the area?

18 A. We did -- the other towers in the area were not
19 damaged.

20 Q. Okay. But we talked earlier about climbing
21 inspections and triggering events and that unusual events
22 that occur on the lines could trigger further
23 inspections, climbing inspections of other similar lines.
24 Did that happen after the Murphy Fire?

25 A. I do not know, because the climbing inspections
26 are not done by the Line Department. They're generally

1 done by the Tower Department. So I really couldn't say
2 whether they did or not.

3 Q. Okay. Did the troublemen do any further
4 inspections or patrols based upon the damage that was
5 found at the Murphy Fire?

6 A. No, sir. We didn't do any additional. We
7 still maintained it regularly.

8 Q. Thank you, (WITNESS #18). I know it's been a
9 long, little longer than we planned. It's been a long
10 morning. I have nothing further.

11 Do any of the jurors have questions? I see
12 one.

13 And the jurors have an opportunity to ask you
14 questions. They do it in writing, myself and the
15 foreperson will take a quick look at it, make sure that
16 it's something that we can actually ask you, and then
17 we'll ask you.

18 THE WITNESS: Do I get to ask them questions?

19 MR. NOEL: Nope. We take the information, we
20 don't give it. That's the unfortunate reality of this.

21 (Counsel and Grand Jury Foreperson confer.)

22 Q. (By MR. NOEL) The question is were you ever
23 trained with specific information regarding the
24 dimensions of the -- looks like it says the dead end of
25 insulator, but the cold end hardware?

26 A. Specifically, I was never trained; however, we

1 do have documentation that shows the dimensions that
2 those are supposed to be kept at.

3 Q. Right.

4 A. So we, as troublemen, do not generally repair
5 the steel. We will send off a work order to the Tower
6 Department for them to repair the steel. But we have
7 knowledge as to what that steel is supposed to look like.

8 Q. Right. So nobody's ever shown you or told you
9 exactly how big that hole, the diameter of that hanger
10 hole, is supposed to be; correct?

11 A. No, sir.

12 Q. And nobody's ever showed you or told you the
13 circumference or diameter of the hook itself?

14 A. No, sir.

15 MR. NOEL: Does that answer it?

16 GRAND JUROR #4: Yes.

17 MR. NOEL: All right. With that, I have
18 nothing further of this witness.

19 And Madam Foreperson's going to read you an
20 admonishment, then you get to leave.

21 THE WITNESS: Okay.

22 MR. NOEL: A lot later than we anticipated, but
23 we understand.

24 GRAND JURY FOREPERSON: (WITNESS #18), you are
25 admonished not to discuss or disclose at any time outside
26 of this jury room the questions that have been asked of

1 you or your answers until authorized by Grand Jury or the
2 Court. A violation of these instructions on your part
3 may be the basis for a charge against you of contempt of
4 court. This does not preclude you from discussing your
5 legal rights with your own attorney.

6 (WITNESS #18), what I have just said is a
7 warning not to discuss the case with anyone except the
8 Court, your lawyer, or the district attorney. Do you
9 understand?

10 THE WITNESS: Yes, I do.

11 GRAND JURY FOREPERSON: Thank you.

12 MR. NOEL: You are done.

13 THE WITNESS: All righty.

14 GRAND JUROR #17: Thanks for your candor.

15 (Lunch break.)

16 [DISCUSSION OMITTED.]

17 [ROLL CALL OMITTED.]

18 [DISCUSSION OMITTED.]

19 GRAND JURY FOREPERSON: Okay. Mr. Magarrell,
20 would you please raise your right-hand.

21

22 ANTHONY MAGARRELL

23 having been called as a witness in
24 the matter now pending, having been first
25 duly sworn, testifies as follows:
26

1 THE WITNESS: I do.

2 GRAND JURY FOREPERSON: Thank you. Have a
3 seat, please.
4

5 EXAMINATION
6

7 BY MR. NOEL

8 Q. Agent, for the record, can you state your full
9 name and spell your last name.

10 A. My name is Anthony Magarrell, spelling of last
11 name is M-A-G-A-R-R-E-L-L.

12 Q. Agent Magarrell, by whom are you employed?

13 A. Employed with the United States Forest Service.

14 Q. In what capacity?

15 A. I am a federal special agent.

16 Q. What does it mean to be a federal special
17 agent?

18 A. We go ahead and I'm responsible for
19 investigating crimes on federal lands, specifically with
20 the forest service, that would include environmental
21 cases such as this, and fire, drugs, timber, those things
22 that affect our public lands.

23 Q. How long have you been a special agent with the
24 forest service?

25 A. Twenty-eight years.

26 Q. Do you have any specific training on

1 investigating fires that occur on US Forest Service land?

2 A. Yes. We have courses specifically for origin
3 and cause, which is our FI210 course. Then we have our
4 advanced course, which is 310, which deals with case
5 investigation, preparation, and how to move forward with
6 those kind of investigations. I'm a graduate of both
7 those courses.

8 Q. How long have you been investigating fires for
9 the forest service?

10 A. Twenty-five plus years.

11 Q. Are you familiar with the Murphy Fire?

12 A. Yes, I am.

13 Q. When did the Murphy Fire occur?

14 A. Yeah, Murphy Fire started in the evening of
15 August 6th, last year, 2018, about -- we had various
16 reports coming in, but I think the report we had with the
17 RP was a little after 11:30.

18 Q. Where did the Murphy Fire occur?

19 A. Near Belden, California, on Highway 70.

20 Q. What was your role in the Murphy Fire
21 investigation?

22 A. I'm the case agent. I'm the lead investigator.
23 So I make determination in terms of work, resources, and
24 how we're going to go ahead and conduct that
25 investigation.

26 Q. As the lead investigator, did you have

1 assistants assigned to you to do this investigation?

2 A. Yes, I did. I had three origin and cause
3 investigators who had graduated from the 210 course.

4 Q. Are you familiar with their training and their
5 experience?

6 A. Yes. I've actually worked with two of those
7 before, which was Courtney Wood and Patrick Callahan.

8 Q. At who was the third?

9 A. The third is Jason Marshall. That was the
10 first time I've worked with him.

11

12 (Grand Jury Exhibit 477 was introduced.)

13

14 Q. We have up on the big board, you have in front
15 of you in the stack there Exhibit 477. Do you recognize
16 the photograph marked as Exhibit 477?

17 A. Yes, I do.

18 Q. What is Exhibit 477?

19 A. 477 is a picture taken from the opposite side
20 of the highway. Highway 70 is a roadway that's on the
21 lower bottom. Feather River is right here. And then
22 it's going to be on the hillside above it heading to the
23 west-southwest with the towers located on power lines.

24 Q. Okay. When we're talking about -- anytime you
25 want, you can stand up and use the big board.

26 A. Okay.

1 Q. Art board here. And we didn't get into this
2 before, you see these arrows on the side? Click on those
3 arrows, they'll bring up various things. The pink bubble
4 in the middle will bring up a pen.

5 A. Oh, you're going to have to walk me through
6 that.

7 Q. Go ahead. When you're explaining what we're
8 looking at, using the photograph and displaying it in
9 words, what are we looking at here?

10 A. Let me try this out. Arrow, pink.

11 Q. Already open. You have the red pen open now.
12 Now it's black.

13 A. Now it's black.

14 Q. Just leave it and go ahead and it's actually,
15 we've learned it's much cleaner if we use the butt end of
16 a pen over your fingers.

17 A. Okay. Gotcha.

18 So over here -- everyone can hear me now
19 without the speaker?

20 This slope right here is pretty much heading
21 towards the west-northwest.

22 Q. You've drawn a black arrow going up to the top
23 right corner with an NW?

24 A. Yeah, heading up the ridge. That's the ridge
25 that drops in. The river predominantly, even though it's
26 slightly off right here, is heading from a north and

1 south. This is the Feather River right here. And this
2 is the road coming across, you can see down here.
3 Apologize, I can't draw stick figures, but I'm drawing on
4 the screen now. But that is Highway 70 right here.

5 Q. All right. So you've indicated with black
6 lines, arrows, the river and Highway 70, and you said
7 this is near Belden town?

8 A. Yeah, actually Belden, California, right here
9 on State Route Highway 70.

10 Q. Which county?

11 A. This would be Butte County.

12

13 (Grand Jury Exhibit 477A was introduced.)

14

15 Q. All right. Save that. We will print that out
16 and save that as 477A for later.

17 A. Better draw a straighter line.

18 Q. All right. X out of this, and we can move on.

19 So give us the chronology of how you became
20 involved in this fire.

21 A. Yeah. Sit back down here.

22 So I received a call in the morning of August
23 7th. I don't recall exactly what time that was. I was
24 doing some other things at the time when this fire
25 happened. At that point in time, it was relayed to me by
26 Investigator Courtney Wood that the fire was unsafe for

1 them to get back into at this time. That was on the
2 morning of the 7th. And it wasn't until -- I had her
3 actually taking statements, witness statements, trying to
4 get everything locked down from the outside until our
5 investigators could actually get onto the site and find
6 out what happened. The investigators were actually able
7 to get out there on the August 9th.

8 Q. And when did you physically get out to the
9 site?

10 A. I did not get on site until the morning of
11 August 11th.

12 Q. And why was that?

13 A. I was on a different mission.

14 Q. Okay. Describe the process of doing an origin
15 and cause investigation like this for the US Forest
16 Service.

17 A. We go ahead and use like a systematic
18 methodology. Basically what it comes down to is
19 excluding. We exclude all the different various types,
20 ways that a fire can actually be caused. Then actually
21 going on the site, we go ahead and use fire indicators,
22 such as angle of char, foliage freezing and stuff.
23 They're actually on the ground that allow us to go ahead
24 and see the direction of which way the fire is going.
25 And then we bring it down to what we call a general
26 origin area.

1 A general origin area could be a large area.
2 Just depends in terms of topography what it is. We try
3 to get down to a specific area of origin -- origin area,
4 excuse me, which sometimes is possible, to where it gets
5 down to a real small spot and say, "This is where the
6 fire started." Or other times, such as this, we kept it
7 and were able to get into a 25-by-50 foot area.

8
9 (Grand Jury Exhibit 478 was introduced.)

10
11 Q. You have in front of you being displayed up on
12 the big board a photograph marked as Exhibit 478?

13 A. Yes.

14 Q. Do you recognize that photograph?

15 A. I sure do.

16 Q. What is the significance of that photograph,
17 478?

18 A. I have my pen.

19 Okay. This one right here, we can see with
20 their jumper cables attached to the main lines.
21 You can see right here, the line actually connects in
22 between. These are called insulators. Jumper cable
23 connects it to, connected to.

24 Now over here -- I need to do my drawing thing.
25 Amazing.

26 Q. It's taking a minute.

1 A. Try it again.

2 So right here --

3 Q. We'll learn this. Do that and start all over
4 again. I do the same thing; my cuffs drag.

5 A. So here's strings of insulators right here. If
6 you notice the jumper cable right here. This is where
7 the connector is. Well, we notice there's nothing
8 attached to that connector. So the jumper line right
9 here, where the connector is on this side, you can see
10 it. I'll kind of draw it right underneath it. That line
11 goes right there depicted in the picture.

12 So what's happened now, we have a failure of a
13 jumper cable for some unknown reason at this time.

14 Looking at -- right here you can tell there was
15 a failure, mechanical failure, and that cable went ahead
16 and is now inoperable.

17 Q. All right. There we go. We saved this.

18 All right. So when you guys were finally able
19 to get up there and access this, you noticed you had
20 jumper cable hanging down?

21 A. Yes. Actually, we noticed that on the day of
22 the fire, information from the original RP, and then also
23 with the investigators on the first date. They were
24 actually able to look from the highway, specifically take
25 this. Investigator Courtney Wood actually took these
26 photos that next morning and was telling me what she was

1 actually seeing. So she could actually see that right
2 from the highway.

3 Q. Now, does the fact that you can see that affect
4 the way that you do your origin and cause investigation?

5 A. It would help us out. In this case, the fire
6 was relatively small, only about 117 acres, memory serves
7 me right, but the methodology is going to be exactly the
8 same no matter what. We're going to go ahead and go
9 through the exclusion matters. We're going to go
10 through, take a look at the burn fire indicators and
11 bring us back to the origin. We're going to do that
12 system every single fire.

13

14 (Grand Jury Exhibit 479 was introduced.)

15

16 Q. Let's move on to Exhibit 479. See exhibit --
17 click out of this.

18 All right. See Exhibit 479?

19 A. Yeah. Just slightly different from 478.

20 Q. All right. Describe to us what we're looking
21 at in 479.

22 A. We have two sets of power lines actually coming
23 through that are kind of parallel. And they are running,
24 I would say, approximately north and south direction, but
25 it's actually more of an eastern aspect. The two lines
26 running parallel, you can see there's going to be three

1 power lines on each tower. They're actually going
2 across. So there's two towers running parallel to the
3 highway, heading mostly north. And each one of those
4 have three of the power cables attached on them.

5

6 (Grand Jury Exhibit 480 was introduced.)

7

8 Q. And Exhibit 480, can you tell us what we're
9 looking at here?

10 A. Yeah, this one really shows us the sets of
11 towers. So looking at this -- I'll draw a quick picture
12 here --

13 Q. Go ahead.

14 A. -- for relation.

15 Q. There it is.

16 A. Excellent.

17 So in this case right here folks, this right
18 here, that's a jumper cable. This line is heading --
19 connects it to here. These two lines are parallel with
20 the slope. The river and the road are down here. These
21 two lines are parallel, goes across. Kind of shows you
22 how it's set up in terms of the pattern.

23 Q. Indicating that the river is down below the
24 right corner of the photograph, the visible horizon of
25 this photograph?

26 A. That is correct.

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(Grand Jury Exhibit 481 was introduced.)

Q. And Exhibit 481?

A. That's a closer-up view of the disconnected jumper cable, the failed jumper cable.

(Grand Jury Exhibit 482 was introduced.)

Q. 482?

A. Now we're even getting closer on that. You can see the line right here. That line -- we'll get a closer view, but we'll see where the aluminum strands are actually put together with regard to those jumper cables. We'll see that later.

(Grand Jury Exhibit 483 was introduced.)

Q. 483?

A. That's sets, both sets of the towers are going parallel to the highway and the river, Feather River.

(Grand Jury Exhibit 484 was introduced.)

Q. 484?

A. So went ahead and we had a helicopter go ahead

1 and fly this after the fire started going ahead and
2 mellowing out. I think that was either the 10th or 11th
3 that picture was taken. So H10 is the name of our
4 helicopter here. We took an overall view. I want to get
5 back up and draw some more pictures.

6 Q. There it goes.

7 A. Okay. This right here will show it. I think
8 we have a map or something later. This right here is the
9 slope heading uphill.

10 Q. Drawing a red arrow going off to the --

11 A. This is actually to the northwest, heading
12 towards the northwest.

13 And here is the main line. You can see -- I'm
14 just going to kind of number them as they go across. And
15 start with four with the second set. And you can see
16 here's the tower. I think in the picture we call that
17 tower 1, and this is tower 2.

18 So actually right here, these are the three
19 lines coming up, heading towards north again. There's
20 two lines coming in. Here's the ridge where it comes
21 down. And, once again, you can see now where the river
22 and the highway is.

23 Q. All right. And, just for the record, so we
24 don't have to keep doing this, all of these that he's
25 drawing on, we're putting on the record the printed and
26 marked as the A to whatever their exhibit number is.

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(Grand Jury Exhibit 485 was introduced.)

Q. All right. Exhibit 485?

A. That's still a bird's-eye view of the previous picture, just in a little bit tighter, closer to the ground.

(Grand Jury Exhibit 486 was introduced.)

Q. 486?

A. That picture actually is down a little bit below the lines. It's looking up towards the northwest.

Can we draw the picture on the ridge again? Or covered it already? What do you prefer?

Q. Let's go back. In terms of doing the origin and cause investigation, were you able to determine the direction, the path of the fire, and does this photograph show it?

A. Yeah. So the one of the fire, actually shown in some previous slides, as we go ahead and go through our methodology, we'll go ahead, mark things with flags as we go ahead and go through to see which way it goes.

So red flag, the marking, as we start going through the investigation will be a running, advancing fire. A yellow will be a lateral fire. And then the

1 green will actually be a backing fire.

2 In this case, the red flag indicators, which
3 we'll show I think later, are going to show the fire,
4 it's actually going to show the fire going up the ridge,
5 which I'll depict here in a second, which is heading
6 towards northwest.

7 Q. All right. So an arrow to the northwest,
8 showing the direction of flight of the fire, path of the
9 fire?

10 All right. So once you get into your area of
11 origin, general area of origin, you've read the macro and
12 macro indicators, the things telling you which way the
13 fire is going, tell us what you do now.

14 A. Yeah, at that point in time, of course, we're
15 trying to get it narrowed down. We're looking for
16 indicators where the fire actually started. That's part
17 of that area that we did get set down as a general origin
18 area, which was 25-by-50. We then started seeing
19 physical evidence that was underneath the tower. That's
20 depicted in this one.

21

22 (Grand Jury Exhibit 487 was introduced.)

23

24 Q. Showing you what's marked as Exhibit 487, the
25 photograph, what are we looking at here?

26 A. Yeah, this one, what we go ahead and do, we use

1 white flags for evidence. In this case, we had 15 pieces
2 of evidence we did collect. There was much more than
3 that, but we collected some of the samples of what's
4 going on. And I'm going to show you here what we're
5 looking at on that one.

6 So as part of the fire investigation, too, we
7 actually go through and use magnets. We're looking for
8 anything, of course iron, that kind of stuff, that is
9 going to hook up with a magnet.

10 In this case, this would be a non-ferrous
11 metallic item, which is consistent with aluminum thread
12 on the power lines, which is depicted right there with
13 the circled area. You can see there's strands of the
14 aluminum wire with the jumper cable.

15
16 (Grand Jury Exhibit 488 was introduced.)
17

18 Q. So Exhibit No. -- evidence item number 1 was
19 aluminum strands.

20 Let's move on to Exhibit 488 and evidence item
21 number 2.

22 A. So evidence item number 2 -- I'm going to have
23 to get my glasses. I apologize. I'm realizing finally
24 starting to get old.

25 Okay. So I was looking for it. So, once
26 again, we're looking at some aluminum strands. In this

1 case, they actually were a little charred, so they don't
2 stick out as much. They're going to be located just
3 above the ruler for reference on measurement.

4 Would you like me to circle those?

5 Q. Sure. Please.

6 So what is it that's inside that circle?

7 A. Yeah, so those would be, once again, some more
8 of the aluminum strands or shards from the jumper cable.

9

10 (Grand Jury Exhibit 489 was introduced.)

11

12 Q. All right. Exhibit No. 489. Do you recognize
13 what this photograph is, this exhibit?

14 A. Yes, I do. Also depicts another strand.

15 Do you want me to circle each one of the
16 strands in this photograph?

17 Q. Sure. This one especially.

18 A. Okay. This one is a little bit longer than
19 some of the other ones. And this one.

20 Q. So you can actually see a long strand -- or
21 long is a subjective term, but an actual strand of wire
22 with flag number 3; correct?

23 A. Yeah. That's a longer length. So it does
24 stick out a little bit better.

25

26 (Grand Jury Exhibit 490 was introduced.)

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Q. Exhibit No. 490. Do you see that photograph?

A. Yes, I do. I'll go ahead and mark this one, too.

Q. Go ahead.

A. Okay. Going to circle this one. Actually see three strands here. Two of them are kind of fused together; can see it on the end. There's another one on top of it. Three individual strands. Two of them are connected.

Q. Now, off to the left side of the ruler in this photograph there's some other items. Do you know what these are?

A. Take a look here. We did have some fencing that we located on the area. Let me review that and see if it looks like it is consistent with that.

In this case, I do not know.

Q. Okay. But there was other debris on -- up there, the general, in the general area of origin?

A. Yeah, there was a lot of debris that concerned me in that case.

Q. But was that debris related, in your opinion, to the fire?

A. No. As a matter of fact, we actually even had splatter on top of that debris.

Q. What do you mean by splatter?

1 A. We'll go through that here soon.

2 So splatter would be molten slag basically
3 that's come in. When these wires, aluminum wires,
4 actually melt with that heat, you're seeing links of
5 fragments, but you also see where the ends have actually,
6 molten, actually dripped. And we'll actually be able to
7 show that here where we've actually found that on the
8 vegetation in the rocks, which in this case actually
9 caused the fire.

10

11 (Grand Jury Exhibit 491 was introduced.)

12

13 Q. All right. Exhibit 491?

14 A. 491. I'll go ahead and draw this one. It's
15 going to be -- once again, it will be one strand.

16 Q. All right. So inside here that's a strand of
17 aluminum wire?

18 A. Yes, it is.

19 Q. And, again, there's other items kind of
20 scattered around you can see in the picture. Those are
21 not relevant items?

22 A. No, they're not.

23

24 (Grand Jury Exhibit 492 was introduced.)

25

26 Q. All right. Moving on to No. 492.

1 A. Yeah, 492, it's a little bit harder to go ahead
2 and actually view on this one, but we'll go ahead and
3 show it. It's actually a little bit darker and also
4 lighter. Let me go ahead and mark it.

5 Q. This one probably we don't need to mark up.
6 This one's a little --

7 A. Interesting?

8 Q. Yeah. Explain to us what we're looking at.

9 A. So on this one it is another link to wire,
10 which is located underneath the measuring tape,
11 underneath the measuring tool. Little bit harder to see.
12 Has a little bit where looked like some white ash type on
13 the right-hand side. And then in the left-hand side it
14 will be a little bit darker.

15 Q. So we're talking about right in here?

16 A. Going across.

17 Q. Okay. Unfortunately, we can't zoom and write.

18 All right.

19

20 (Grand Jury Exhibit 493 was introduced.)

21

22 Q. 493. What are we looking at in Exhibit 493?

23 A. Now we're starting to get into the point where
24 I was talking about the splatter. And that's molten, in
25 this case, aluminum. And this will be a view up higher.
26 We'll -- the next picture will show it a lot closer.

1 I'll go ahead and mark this one, too.

2 Q. So before you get to that, why is aluminum slag
3 or aluminum splatter important to you as an origin and
4 cause fire investigator?

5 A. Well, it's going to be a source of heat.
6 Imagine what it takes to -- you got an aluminum can, how
7 hot is that to melt? You're looking at a real high heat.
8 So at that point in time, when that's actually put back
9 on the natural vegetation, especially with dry grasses,
10 low humidity -- summertime, it was August -- that's going
11 to be your source that's going to go ahead and cause a
12 fire in this case.

13 Q. Okay. Go ahead and mark it up and show us what
14 you're talking about.

15 A. Let's look at that one. There's some other
16 pieces, small pieces of slag, but this one's the largest
17 one in this picture right here. We'll get a closer look
18 where you can actually see this on that. But here's the
19 slag that's actually on the rock. We'll show quite a few
20 photos with that.

21 Q. You've drawn a red circle around the slag;
22 correct?

23 A. That is correct.

24

25 (Grand Jury Exhibit 494 was introduced.)

26

1 Q. Moving on to 494. What is 494?

2 A. So 494 is a closer version of that same picture
3 on that rock. And you can look on the upper left-hand
4 side, and if you take a closer look at it, you can
5 actually even see where it's raised in terms of aluminum
6 of the ridges. So I'm going to circle it once again.

7 Okay. So that's the molten aluminum that's
8 actually on the rock. And you can see here, too, how it
9 kind of conforms a little bit on the ridges. Actually
10 splattered, kind of laid down, conforming on the rock.
11 And you can see places where it's raised, it's a little
12 bit thicker or thickness, depending on where it actually
13 hit on the actual rock itself.

14

15 (Grand Jury Exhibit 495 was introduced.)

16

17 Q. Moving on to 495. What are we looking at here?

18 A. So 495, we discussed previously about there
19 being other items that were actually located underneath
20 the tower. Mechanical things, looked like there was some
21 previous repairs. Part of this was this unknown wire
22 right here. And this is really key in terms of actual
23 starting the fire if it was there previous or beforehand.
24 So when the splatter actually gets on top of these
25 devices, we know, of course, that was after the fact.

26 So what this actually depicts, I'll show a

1 couple of things here. You can still see -- okay. So
2 there's a whole bunch of this kind of scattered
3 throughout here, but if you look right here in the
4 center, you can see where the slag is actually on top of
5 the fencing right there. Okay? So that fencing was
6 already deposited there beforehand. But still, if you
7 look on the rocks, you've got all these small pieces of
8 splatter, larger pieces, all scattered, then a little bit
9 more even on the fencing.

10 What it does, the investigators, it shows that
11 this wire was already here beforehand, and we were able
12 to exclude that as part of the potential cause on the
13 fire.

14
15 (Grand Jury Exhibit 496 was introduced.)
16

17 Q. All right. 496. What are we looking at here?

18 A. Okay. We're looking at some more of the
19 splatter. This is a little bit further-up version, so
20 it's harder to tell. This actually shows some of the
21 splatter left on some of the unburnt, unburnt -- excuse
22 me -- vegetation, ground debris, dead materials that were
23 on the ground. I think the next picture will show a
24 closeup of this. This one will be a little bit harder to
25 tell, but I'll show you what we have here as soon as this
26 screen allows me.

1 Right here is the item we're looking for.

2

3 (Grand Jury Exhibit 497 was introduced.)

4

5 Q. All right. 497?

6 A. Yeah, 497 is, basically it's a close-in of what

7 I just went ahead and took a photograph of on the

8 previous one, on 496. And just to make sure, wait for

9 our friendly computer to help us out here. Rock, rock,

10 rock, vegetation, vegetation.

11

12 (Grand Jury Exhibit 498 was introduced.)

13

14 Q. All right. 498. What are we looking at at

15 498?

16 A. 498, once again, we're looking at splatter.

17 Remember, there's a lot of molten splatter right here.

18 Looking, going through these photos, this isn't a large

19 area. And all this fire line is, you'll see as it goes

20 ahead, it's more almost like a linear, lateral line that

21 goes through that has this splatter. And that's where

22 we're looking at in that case.

23 Once again --

24

25 (Grand Jury Exhibit 499 was introduced.)

26

1 Q. 499?

2 A. Sorry.

3 Q. Yep.

4 A. Once again, we're looking at more splatter.
5 Sound like a recording on there.

6 Q. But this is how it really is when you do a fire
7 origin and cause investigation; right?

8 A. Yes. In this case, origin and cause
9 investigators were there on the 9th, 10th, we came back
10 to finish things up on the 11th when I was down talking
11 to PG&E, collecting evidence. Two of my investigators
12 wrote they were wrapping up things, going ahead and
13 taking last photographs, heading down the hill. So we're
14 here for three days going through this area. So it's
15 very time-consuming, very meticulous.

16 Q. That's the word I was looking for,
17 "meticulous."

18 A. Oh, yeah. There's only one way to do it, do it
19 right, be thorough.

20 Q. So, again, we have aluminum splatter slag on a
21 rock?

22 A. Yes, that's correct.

23

24 (Grand Jury Exhibit 500 was introduced.)

25

26 Q. Exhibit No. 500?

1 A. Surprise. Once again, very large piece. I
2 think you can see all this little micro stuff all
3 scattered throughout.

4

5 (Grand Jury Exhibit 501 was introduced.)

6

7 Q. I'll give you hope. We have three more. 501.

8 A. I'm hoping to say two after this. At least on
9 these slides.

10 Splatter. This one, once again, you can start
11 taking a look, you can see the splatter. I'll only
12 circle in the one area, but as you can see, there's
13 splatter throughout the whole rock there and the adjacent
14 one next to it.

15

16 (Grand Jury Exhibit 502 was introduced.)

17

18 Q. Two. Exhibit 502.

19 A. All right. Splatter. There we go.

20 Q. More splatter on rocks.

21 A. It will all make sense in the end, folks.

22 Q. This time with number 14 flag in it?

23 A. We are getting close.

24

25 (Grand Jury Exhibit 503 was introduced.)

26

1 Q. And, finally, in this number 15, what are we
2 looking at? At number 503, I mean.

3 A. Yeah, 503. I think we'll actually have two
4 depictions on this one. You'll have a little bit
5 further-up view, but you can see on the edge of that rock
6 looks like a pretty good chunk of splatter located. It
7 is evidence number, item 15.

8
9 (Grand Jury Exhibit 504 was introduced.)

10
11 Q. And the last one, Exhibit 504?

12 A. Yeah. So this is the same picture we just
13 looked at previously; however, this one here you can see
14 a lot better. It's a lot closer in.

15 In this case, we actually do have some more
16 items if you take a look here, but I wanted to emphasize
17 this one here. This is the bigger piece, readily --
18 easily seen.

19 Q. So just give some perspective, when you talk
20 about meticulous, on the bottom of each picture there's a
21 line with the exhibit number and then a DSC number and
22 description. What does that represent, DSC number?

23 A. That's actually going to be a digital, digital
24 photograph that's taken. So each one of those have a
25 number that's identified to it. With that picture is the
26 evidentiary item that's listed with it. And then with

1 that, what that description is we photographed, and then
2 also the direction and GPS location of that photo taken.

3 Q. So you take meticulous photo logs and evidence
4 logs of all those photographs?

5 A. Absolutely.

6 Q. So they understand that as meticulous as I am
7 and as slow as I am, this is picture number 96, we
8 haven't used all 96, have we?

9 A. No, we have not.

10 Q. We were discerning in which pictures we chose.
11 All right. Let's save that.

12 All right. We've gone through the 15 evidence
13 items that you picked up.

14 Now, do you -- as part of your origin and cause
15 investigation, do you also diagram the scene?

16 A. Yes, we do.

17

18 (Grand Jury Exhibit 505 was introduced.)

19

20 Q. All right. So now moving on to Exhibit 505,
21 explain to us what is Exhibit 505.

22 A. 505 is actually the power pole which is on the
23 upper left-hand corner. That one's labeled with the
24 number. Or want me to circle it or read the number?

25 Q. Just leave it. It's marked, I think.

26 A. Yeah. So it's marked 17, dash, 128 with

1 additional numbers. That identifies that power pole
2 right there.

3 So, once again, these are the two parallel
4 lines that you saw on the previous pictures. And those
5 are the pole identifiers on each side.

6 Q. So as we're looking back at some of the earlier
7 photographs, this pole up here, 17, dash, 128, with this
8 connector jumper would be the top, and the top pole line,
9 and the left-hand pole line, and the poles down here on
10 the bottom would be the right-hand pole line; is that
11 correct?

12 A. That is correct.

13 Q. Okay. Just so we understand it.

14

15 (Grand Jury Exhibit 506 was introduced.)

16

17 Q. All right. Moving on to Exhibit 506. Explain
18 to us Exhibit 506, please.

19 A. Okay. So to start using our methodology, we're
20 going through and we're looking for fire and burn
21 indicators. As part of that, I kind of told it
22 previously, I'll show you a couple examples of each on
23 this, if that works?

24 Q. Go ahead.

25 A. What we do is we go ahead and list all the burn
26 indicators we go through. We're trying to find this area

1 and get back to the general origin area. As part of
2 this, these red arrows that I talked about previously is
3 advancing fire. Looking at indicators out there, seeing
4 where it's actually advancing, so we get it back to a
5 general area of, general origin area.

6 The yellow markers right here, remember, these
7 are lateral.

8 And then there's a green one. Those are
9 backing.

10 Depicted as part of this, tower 1, that's going
11 to be the one that we have in question. The circle
12 around it is a general origin area that was determined.
13 And then the tower below it is tower 2.

14 Q. So you determined -- or that it was determined
15 that the general origin area of the fire included tower 1
16 and went down to just below tower 2?

17 A. That is correct. The backing fire went down
18 towards tower 2.

19 Q. Tower 1 was the tower with the disconnected
20 jumper?

21 A. Yes, that is correct.

22 Q. Were you able to determine what transmission
23 line tower 1 belonged to?

24 A. Yeah. Let me make sure I get that one correct.
25 I have that in the original report. Stand by for a
26 second, please. One of those hyphenated names. Want to

1 make sure it's done right.

2 Q. By "report," you're referring to --

3 A. Yes.

4 Q. -- the "Report of Investigation, Official US
5 Forest Service Fire Report"?

6 A. Yes, I'm referring back to my "Report of
7 Investigation" that I'm the author of.

8 So on this line right here is actually the
9 Caribou-Table Mountain line.

10 Q. Okay. So T1 is the Caribou-Table Mountain
11 line?

12 A. Yes.

13 Q. Part of the Caribou-Table Mountain line, as
14 we've learned, that would be tower number 17/128?

15 A. Yes. In the previous photo.

16

17 (Grand Jury Exhibit 507 was introduced.)

18

19 Q. Moving on to the diagram marked as Exhibit No.
20 507, what are we looking at in 507?

21 A. Yeah, 507 is a closer-up of the general origin
22 area. So basically we had a map that was kind of zoomed
23 out that showed all the work we were doing in terms of
24 finding out where the general origin area was. This is
25 now zoomed in specifically to that general origin area.

26 Once again, I'll draw this here.

1 So, in this case, right here, remember, backing
2 fires, green? Lateral ones. Backing fire coming from
3 here. We have a lateral one from here. And we have
4 advancing right here with the red. And in particular,
5 we'll start saying, "Hey, there's white flags." And
6 that's where we're starting to see some of the slag,
7 right there, evidence 14 and 15 that we went over
8 previously.

9 Q. So what does it indicate to you that you have
10 backing fire down at the bottom towards T2, lateral fire
11 going off to the right side, and advancing fire going off
12 toward the top, away from the evidence items 14 and 15?

13 A. We're getting real close to the cause of the
14 fire.

15 Q. You started to establish a specific area of
16 origin here?

17 A. I don't think we actually got to a specific,
18 but we did get to a general area.

19 Q. Okay.

20 A. Once again, we got down to 25-by-50 foot area.

21
22 (Grand Jury Exhibit 508 was introduced.)

23
24 Q. And next, the diagram marked as Exhibit 508.

25 A. Yeah, 508, little bit closer, but it actually
26 comes a little bit further down towards the southeast. I

1 said before in my testimony that we were looking at --
2 the evidence items that we collected was more of a
3 lateral line. That would be something for me, as
4 investigator, consistent with that jumper cable. Once
5 that, whatever the failure was caused that failure of
6 that cable, that cable now swings in a downward movement
7 and makes an arc. These items with the molten slag and
8 the strands -- I'll go ahead and show the picture here --
9 are actually pretty much in a lateral line, consistent
10 with where that cableware dropped.

11 Q. So each of these little boxes that says E3 --
12 leading from left to right -- E3, E1, E2, E4, what are
13 those numbers? Well, first of all, what does the E mean?

14 A. The E is going to be evidence.

15 Q. And what do the numbers related to?

16 A. Those are going to be evidence items we
17 collected. So we had evidence items E1 through E15,
18 which we showed, was the previous slides. Or I guess not
19 slide, pictures. Which are the evidence with the strands
20 and the molten aluminum there, slag, whatever you want to
21 call it, that's actually on top of the rocks there.

22 Do you want me to draw a line on that or are
23 you good?

24 Q. Sure. You've got it pulled up there, go ahead.

25 A. I think it's good right now. Let me double
26 check.

1 Okay. So right here, just past that, where the
2 first picture was with evidence items 14 and 15, this
3 right here is evidence item 13, all the way through 1.

4 Here's a tower. Jumper cable. Went this way.

5 Q. On this tower, was -- the jumper cable that was
6 disconnected, was it on the uphill side of the tower or
7 downhill side of the tower?

8 A. It would be on the southwest -- let me double
9 check here. So it's going to be on the southwest of the
10 -- and that northwest pole is going to be lying on the
11 southwest.

12 Q. So I can have you draw some more in here.
13 We'll change colors. We haven't tried blue yet. So
14 let's try blue.

15 T1, according to the legend, is the tower. So
16 can you show us where that, that disconnected jumper
17 cable would have been?

18 A. Yeah, I'm going to refer to one of my other
19 previous photos we talked about.

20 Q. Go ahead. Just let us know which one.

21 A. Okay. Thank you.

22 Just -- so you've seen my drawing capabilities
23 aren't the greatest.

24 So I'm going to refer back to evidence -- or
25 Exhibit 481, and then I'm going to try to draw again.

26 Bear with me, folks.

1 Q. I think we already got the pen up and ready to
2 go. It's blue this time.

3 A. Excellent.

4 At the tower, remember, we have three lines
5 going across; okay? Jumper cable with the insulators is
6 on this line right here.

7 Q. So blue circle at the bottom of the box marked
8 as T1?

9 A. That is correct.

10 Q. Great. Thank you.

11

12 (Grand Jury Exhibit 509 was introduced.)

13

14 Q. All right. Now, moving on to Exhibit 509. Do
15 you have 509 in front of you there somewhere?

16 A. One moment, please. Yes, I do.

17 Q. And are you familiar with what's depicted in
18 509?

19 A. Yeah. That's a photo I actually took on August
20 11th.

21 Q. What does Exhibit 509 depict?

22 A. That depicts the connecting cable, which is --
23 let me make sure I get the correct -- so it's an Ampact
24 connector, with an A. That connector is actually
25 attaching the line, which I think the next picture would
26 be a better one to maybe show it on.

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(Grand Jury Exhibit 510 was introduced.)

Q. Okay. 510?

A. Yeah, please.

Q. Do you have 510 in front of you?

A. Okay. I sure do.

Q. I guess we probably, just for the record, and I'm sure everybody can figure it out, these pieces of paper that are attached to this tag, is that something you attached to the tag, or to the connector?

A. It sure is. With the assistance of PG&E. They actually went up on the line and secured that. Had my investigators on top where the tower was. I was down back at the parking lot where we actually flew the helicopter in, where they disconnected these items where the failure took place. We ended up having both strands of insulators and the jumper cable flown directly from the scene to my location, in which I labeled as evidence.

Q. And describe the process of taking control and cataloging the evidence for us, please.

A. At this time, I ended up having, I believe, four evidentiary items. Let me take a look at my statement here. I had the long strand jumper cable. I had the shortened piece, which is this with a connector. And then I had two strands of the insulators.

1 And, let me see, in terms of -- yeah, so
2 evidentiary items 1511, 1512, 1513, 1514 as part of my
3 report investigation. So we had the string of
4 insulators, another string of insulators with physical
5 damage and scorching, the long end of the jumper cable
6 with the connector, and the short end of the cable with a
7 connector.

8 MR. NOEL: Okay. Now, we're going back and
9 forth, and I want to put something on the record using
10 the language. It's not testimony, but I want to make
11 sure that you guys are familiar with this. I want to
12 make sure you guys are looking at this on the jury. The
13 connectors that we are talking about here, we've heard a
14 lot of talk, a lot of testimony about connectors and
15 parallel groove connectors, remember, in the fire danger?
16 Note, this is not a parallel groove connector. I just
17 want to make sure that that's absolutely clear that
18 everybody understands this isn't the type of connectors
19 that we talked about before that needed to be replaced.
20 We can blame PG&E for lots of things, but this isn't one
21 of the bad connectors.

22
23 (Grand Jury Exhibit 511 was introduced.)
24

25 Q. All right. Go ahead. Oh, we're moving on to
26 Exhibit 511.

1 A. Yeah. It's another picture I took as soon as
2 those items were settled down from the helicopter,
3 detached, when I had to take an overall photograph after
4 we started labeling it.

5 You want me to talk about it and circle as I
6 go?

7 Q. Sure.

8 A. So the previous pictures we discussed right
9 here. The Ampact connector with the shorter part of the
10 cable. Then you can see this right here, kind of blocked
11 a little bit with the insulators, coming all the way
12 around with the other connector. That's the longer piece
13 of the jumper cable that you saw that was hanging. With
14 that now we have two strings of insulators. And we took
15 all those items from that whole line that failed, the two
16 things of insulators and jumper cable between them. And
17 that's the items that we removed where the failure took
18 place, and went from site, specifically there, were then
19 seized as evidence.

20
21 (Grand Jury Exhibit 512 was introduced.)

22
23 Q. Moving on to Exhibit 512. The photograph
24 marked 512, what are we looking at?

25 A. Yeah, this photo was taken by Jim Nolt,
26 Associates, I think actually with Jim. That person is a

1 technical expert that will be bringing advice. He's an
2 electrical expert. And I brought him in in this matter
3 to go ahead and give his expert testimony -- not expert
4 testimony, his expert advice of what was going on here
5 with this case.

6 Q. All right. And what does this photograph
7 depict?

8 A. So this picture we've talked about, and we saw
9 my pictures actually in the field. This is a closer-up
10 version. And there's a couple of things that I really
11 would like to show in this photo right here. Let me go
12 ahead and make some marks here.

13 Q. Go ahead.

14 A. So we take a look, start taking a look at these
15 strands, start taking a look at the ends right here,
16 they've actually been melted here on the ends. That's
17 going to be consistent with the splatter that we actually
18 had on site.

19 And then you can also see where the end's here
20 actually broken off. So not only do we have splatter,
21 but you can see where there's missing parts of the
22 strands. Remember how we had some of the missing strands
23 were actually located on the jumper cable on top of the
24 vegetation?

25

26 (Grand Jury Exhibit 513 was introduced.)

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Q. All right. And Exhibit 513, what are we looking at?

A. Yeah, Exhibit 5 -- 513 is another picture taken by Jim Nolt. And it's just another depiction of what we discussed here in the previous photo.

Q. Now, here -- in the previous photo we just had one. Here we seem to have two strands laid out with the space in between?

A. That is correct. That's actually where the -- I'll mark it here. That's where the failure took place. Original conditions, this right here would have been one piece. That's where the break occurred.

(Grand Jury Exhibit 514 was introduced.)

Q. And Exhibit 514, what are we looking at?

A. Yeah, that just shows a different angle. Kind of gives you a little bit more in terms of coloring of the connector itself, and also of the strands that were connected.

(Grand Jury Exhibit 515 was introduced.)

Q. 515?

A. 515 is important details we need to learn on

1 this. I'm going to start marking on the board.

2 Q. Yep. In this one we may want to use several
3 different colors.

4 A. I think so, too.

5 Q. Start with red, then every time you tap that it
6 will change colors.

7 A. Okay. Red, first one. We'll make it hot;
8 right?

9 So here's the connector. Remember, that's
10 aluminum, also. If you take a look at the end, that
11 whole end of that corner was hot enough it scorched that
12 connect and started molten it -- melting it, excuse me.
13 That's real important.

14 Q. For the record, the agent has circled the
15 corner of the connector with a red circle.

16 So switch colors. Now we're on the black.

17 A. So black. I find it real interesting, also --
18 color probably two of these; okay? We'll go over as we
19 go.

20 Black. Start taking a look right here, you can
21 see whatever the heat source that took place right here,
22 that actually started melting the strands. Actually went
23 into the connector right here. You can see how it
24 actually broke them. Some of them standing up right
25 here, you can actually see the edges right here where
26 it's actually melted and failed.

1 Let's go.

2 Q. Blue?

3 A. So we're going to see the same on the other
4 side, but to a lesser degree.

5 And then --

6 Q. Green?

7 A. Green. Here, one of the things I like about
8 this photo right here, if you actually take a look here
9 at the ends, you can actually see where it's actually
10 kind of mushroomed out a little bit with the molten right
11 here, where it's actually gone ahead with those wire
12 strands. You can see where some of that slag, some of
13 that we called slag and splatter previously is actually
14 still attached to the strands.

15

16 (Grand Jury Exhibit 516 was introduced.)

17

18 Q. And, finally, Exhibit 516.

19 A. Yeah, 516, get my pen out again.

20 So normal conditions, everything is going to be
21 brown right here; right? So if we notice this whole
22 section right here, not only has it been broken off, but
23 you can see where the burn and scorch marks are across
24 there. So we've had a failure where it's jumped through,
25 burned and blew out insulators as well.

26 Q. All right. You circled that with red?

1 A. Yes, I did.

2 Q. Why is that significant, in your mind?

3 A. That shows a failure. Insulator is supposed to
4 be protecting that whole system right there, and it blew
5 up the insulator. So, yeah, whatever that force is that
6 caused that, not only did it break the jumper cable line,
7 but it blew out the insulator.

8 Q. All right. We've gone through all the
9 exhibits. Do you have an opinion as to what caused the
10 Murphy Fire?

11 A. Absolutely. We came to the determination that
12 the cause was the failure of the power line, specifically
13 jumper cable.

14 Q. So going back to where we started, this
15 photograph looking up above the river, can you kind of
16 give us an idea as to what you believe happened on August
17 the, August 6th, 2018?

18 A. Could I refer back to a witness statement on
19 the -- or you want to go through this?

20 Q. Just your own opinion as to the evidence.

21 A. My own opinion as the lead on this
22 investigation right here -- and I will go ahead and
23 circle this here in this picture.

24 Q. Go ahead.

25 A. That's our jumper cable, the tower. There's
26 one. I need to erase that.

1 Q. Go ahead. There's the broom right there.

2 A. Okay. I've got to get my aspects up here.

3 So what happened here is we have, of course,
4 the tower on the line on 1. Below it was tower number 2.
5 That fire with the jumper cable, the one that had failed,
6 we had advancing fire going up ridge line to the
7 northwest. We had a backing fire that went down to the
8 other side of the towers. And then we had a little bit
9 of lateral burning going either direction.

10 So, as part of the fire investigation, going
11 ahead and making those determinations, going through our
12 systematic approach, going through being meticulous on
13 saying -- finding the failure, finding the splatter that
14 went ahead in that arcing view, bringing it back to the
15 general origin area, and then physically looking on the
16 ground, all comes back to the same point of the power
17 line failure.

18 Q. What were the weather conditions like on the
19 evening of August 6th?

20 A. August 6th, there wasn't too much in terms of
21 wind. I think it was minimal, two or three miles per
22 hour, which is kind of normal in the evening. Humidity,
23 I'd have to pull up the weather chart on that if you're
24 looking for actuals.

25 Q. No, just in general.

26 A. General, it's the summertime, folks. I mean,

1 it's beginning of August. This year we've had a little
2 bit of a later summer, so fire conditions are just
3 starting. Last year, as we're aware of, it was a lot
4 worse. So everything was a lot dryer out there. So in
5 terms of fire and threats, everything is dryer out there,
6 everything is more of ready to kindle and go. So
7 conditions were a lot worse for fire activity.

8 Q. But winds were relatively calm?

9 A. At this, at the point of the evening of the
10 fire they were.

11 Q. Were there PG&E personnel present during the
12 investigation?

13 A. Not to the area. We excluded them from the
14 area until we conducted our investigation.

15 Q. Ultimately, when you started collecting
16 evidence -- the lines themselves, the connectors, the
17 jumper line, the insulators -- did you rely on the
18 assistance of PG&E for doing that?

19 A. Yes, I did.

20 Q. Why is that?

21 A. They're the experts in terms of that. I hang
22 from a helicopter and a rope all the time, but not
23 playing with electricity. So that's a technical
24 expertise that really only PG&E has. So we use them as
25 the experts, go ahead and do that. We make sure to
26 secure either side to be able to show that we have that

1 chain of custody in terms of evidence and make sure
2 that's secured throughout the investigation.

3 Q. I think that's all I have.

4 See one. Do we have any other questions from
5 the jurors?

6 A. I wasn't that good, folks.

7 MR. NOEL: I have to go over with her first,
8 then I'll read you the questions.

9 (Counsel and Grand Jury Foreperson confer.)

10 Q. (By MR. NOEL) All right. Now, preface this.
11 We talked a little bit about looking through the
12 photographs, your an origin and cause, you're a fire
13 investigator; correct?

14 A. Yes.

15 Q. You're not an electrical expert?

16 A. No, I'm not.

17 Q. You hired in this case Jim Nolt to come out and
18 assist with this investigation and be the expert;
19 correct?

20 A. Yes. Yes, I did.

21 Q. So I want to limit this question just to your
22 own knowledge, experience, opinion for both of these
23 questions and not getting into Jim Nolt's conclusion.
24 We'll get those from him later.

25 Did the bird-caging, in your opinion, in the
26 jumper exist before or after the failure of the jumper?

1 A. I can't answer that.

2 Q. And, in your opinion, did the bird-caging
3 contribute to the failure of the jumper?

4 A. Once again, I have to result to Jim in terms of
5 his expertise on that.

6 Q. Okay. And we will do that.

7 The one thing is, apparently, the jurors are
8 paying attention because they know all about bird-caging.

9 A. All right. I like it.

10 MR. NOEL: That is all we have. If there's no
11 more questions from the jury, Madam Foreperson, the
12 admonishment.

13 GRAND JURY FOREPERSON: Your name again?

14 THE WITNESS: Anthony Magarrell.

15 GRAND JURY FOREPERSON: Magarrell.

16 THE WITNESS: Magarrell. Want me to spell it?

17 GRAND JURY FOREPERSON: No.

18 MR. NOEL: Don't take the exhibits with you,
19 we've, we already had that.

20 GRAND JURY FOREPERSON: Mr. Magarrell?

21 THE WITNESS: Yes.

22 GRAND JURY FOREPERSON: You are admonished not
23 to discuss or disclose at any time outside of this jury
24 room the questions that have been asked of you or your
25 answers until authorized by this Grand Jury or the Court.
26 A violation of these instructions on your part may be the

1 basis for your, for a charge against you of contempt of
2 court. This does not preclude you from discussing your
3 legal rights with your own attorney.

4 Mr. Magarrell, what I have just said is a
5 warning not to discuss this case with anyone except the
6 Court, your lawyer, or the district attorney. Do you
7 have any questions?

8 THE WITNESS: I do not. Thank you very much.

9 GRAND JURY FOREPERSON: Thank you.

10 MR. NOEL: Just for the record, your attorney
11 in this would include --

12 THE WITNESS: The federal side.

13 MR. NOEL: The AUSA. So you can get out of
14 here, Tony.

15 THE WITNESS: Thank you very much, folks. I
16 appreciate your service here on this.

17 [DISCUSSION OMITTED.]

18 --oOo--

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COURT REPORTER'S CERTIFICATE


This is to certify that I, JENNIFER L. HUNT, CSR, a Certified Shorthand Reporter of the State of California, was present at the time and place the foregoing proceedings were had and taken in the within matter; that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings and afterwards caused my said shorthand writing to be transcribed into typewriting. Further, pursuant to CCP237 all reference to jurors by name has been redacted.

The foregoing pages beginning at:

1 through 137

are certified to be a complete transcription of said stenographic shorthand notes.

DATED: THIS 6TH day of JUNE 2022



JENNIFER L. HUNT, CSR 10735
OFFICIAL REPORTER

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IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

REDACTED

BCSC-2019-GJ-01

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, AUGUST 20, 2019

VOLUME 17

OROVILLE, BUTTE COUNTY, CALIFORNIA

LISA MCDERMID WELCH, CSR 10928, OFFICIAL COURT REPORTER

1 APPEARANCES:

2
3 FOR THE BUTTE COUNTY DISTRICT ATTORNEY'S OFFICE:

4 Marc Noel, Deputy District Attorney
5 25 County Center Drive
6 Oroville, California 95965

7 FOR THE STATE OF CALIFORNIA DEPARTMENT OF JUSTICE
8 OFFICE OF THE ATTORNEY GENERAL:

9 [No appearances]

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WITNESSES:

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JOSEPH MCNEIL

Examination by Mr. Noel

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1 OROVILLE, BUTTE COUNTY, CALIFORNIA

2 AUGUST 20, 2019; 1:10 p.m.

3 (Confidential Grand Jury Hearing Proceedings)

4
5 [ROLLCALL OMITTED.]

6
7 [DISCUSSION OMITTED.]

8
9 MR. NOEL: All right. We ready to get started?

10 Joe McNeil. He should be sitting in the witness
11 room outside.

12 [Witness Joseph McNeil enters the courtroom.]

13 GRAND JURY FOREPERSON: Mr. McNeil, before you
14 have a seat, when you are ready, would you please raise
15 your right hand to be sworn.

16 Mr. McNeil, do you solemnly swear that the
17 evidence you shall give in this matter pending before the
18 grand jury shall be the truth, the whole truth, and
19 nothing but the truth so help you God?

20 THE WITNESS: Yes, I do.

21 GRAND JURY FOREPERSON: Thank you. Have a seat,
22 please.

23 **EXAMINATION**

24 BY MR. NOEL:

25 Q. Mr. McNeil, will you please state your full name
26 spelling your last name for the record.

1 A. Joseph Donald McNeil, M-c-N-e-i-l.

2 Q. What do you do for a living, Mr. McNeil?

3 A. I'm a consulting arborist. So that means I talk
4 with interested individuals, public agencies, attorneys,
5 insurance companies about any matters that concern issues
6 around trees.

7 Q. In front of you you have what is marked as
8 Exhibit 517. Do you see 517?

9 A. Yes.

10 Q. Do you recognize 517?

11 A. I do.

12 Q. What is 517?

13 A. It's a resumé that I've created with a summary
14 of my background and qualifications.

15 Q. Can you walk us through your education, your
16 training, and your experience that qualifies you as a
17 consultant arborist?

18 A. In 1971 I purchased a tree service company from
19 an individual who didn't want to be in business. He
20 wanted to be employed, and he specifically wanted me to
21 employ him. He taught me the heavy rigging and how to
22 manage dismantling heavy structures, aerial structures,
23 and some basics of tree pruning.

24 By 1974 I realized there was a larger
25 arboricultural world. In 1975 I joined the International
26 Society of Arboricultural. It's an international

1 organization now. It has about 24, 25,000 members, I
2 believe. I joined the National Arborist Society which
3 was the Organization of Tree Services, now the Tree Care
4 Industry Association.

5 I joined the California Arborist Association. I
6 attended seminars and conferences that they presented. I
7 attended programs sponsored by the Cooperative Extension,
8 and I asked a lot of questions. Pretty soon I became
9 noticed and have been from that point accepted in the
10 community of arboricultural leaders not only nationally
11 but internationally.

12 I have been very fortunate starting out as a
13 tree guy to be able to associate with, be accepted, and
14 count these professional and industry and academic
15 leaders among friends because it's been a tremendous
16 education over the past 35 years.

17 Q. It says that from 1971 to 1995 you were a
18 working field arborist. Is that true?

19 A. Yes. At that -- during that period is when I
20 ran my tree service.

21 Q. What is a field arborist?

22 A. Field arborists do the physical hard labor.

23 Q. What kind of hard labor?

24 A. Hard, hard labor that's in the hot weather, in
25 the cold weather, in the rain and in the snow climbing
26 the trees, taking parts off of them, pruning, dismantling

1 trees over houses, taking them out, disposing of all of
2 those heavy parts, managing crews which aren't always as
3 cooperative as they could be nor is the equipment as
4 cooperative as it could be.

5 By 1995 I had had it. And I had been consulting
6 for 15 years before that. So it was a natural transition
7 for me to go into consulting full time. And I had an
8 offer to teach at Diablo Valley College at the same time,
9 which I did for a short period of time.

10 Q. What is the difference between a field arborist
11 and, say, a tree trimmer?

12 A. I'd like to think that a field arborist has
13 fundamental knowledge of tree biomechanics. That's how
14 trees react to physical loads, how they grow under
15 different weather and load circumstances, their biology,
16 insects, how they respond to different stress, hot, cold,
17 drought, excess water.

18 And there are training courses that are readily
19 available to all practicing field arborists. And there
20 are certainly different levels of certification that are
21 available to them to certify and pass these courses
22 whereas simply a tree trimmer may be someone who's
23 ignorant of what they are actually doing.

24 Now, a good field arborist is also a tree
25 trimmer, but not all tree trimmers are going to be good
26 arborists.

1 Q. What is the International Society of
2 Arboriculture?

3 A. It's made up of researchers, academics, business
4 owners, field arborists, climbers world wide. I just
5 returned Thursday from Knoxville, Tennessee at our --
6 from our international convention. We had a lot of
7 representation from France, Germany, Italy, quite a few
8 from -- many from New Zealand and Australia, Canada,
9 Brazil all working toward supporting research.

10 Arboriculture is dealing with living organisms.
11 And there is a tremendous amount of research that occurs
12 every month around how trees grow, react, interact with
13 their environment. So there's a lot of publications,
14 peer-reviewed journals and publications and programs all
15 over -- all over the United States and in Europe. And
16 the International Society of Arboriculture sponsors a lot
17 of those.

18 The International Society of Arboriculture also
19 has affiliated sub-associations; Municipal Arborist
20 Association, Utility Arborist Association. And they
21 conduct certification programs at various levels and a
22 qualification program which is somewhat similar to
23 certification in tree risk assessment.

24 Q. Okay. Get to that in just a second.

25 How does one become a member of the
26 International Society of Arboriculture?

1 A. One has to have some association with
2 vegetation, plants, and be willing to join and pay their
3 dues. There isn't a prior education requirement or
4 continuing education requirement.

5 Q. So it says that you're an International Society
6 Arboriculture board certified master arborist. What does
7 that mean?

8 A. That requires that you first be a certified
9 arborist which requires a number of continuing education
10 units or a degree in a related field or both and that you
11 pass a 200-question, four-hour test.

12 Then the board certified master arborist
13 requires additional experience, years, time, and grades
14 essentially, and a test that's the hardest test that I've
15 taken associated with arboriculture. It's a difficult
16 test.

17 Q. And you've been an ISA certified master arborist
18 since 2012?

19 A. Yes.

20 Q. Now, it also says that you are tree risk
21 assessment qualified by the ISA. Can you explain to us
22 what that means.

23 A. Tree risk assessment qualification again
24 requires some basic background in trees. It's based on a
25 two-day course that guides your previous experience into
26 a format for filling out, assessing, quantifying various

1 attributes of trees. Risk is defined as the likelihood
2 of an event and the consequence of that event if it
3 occurs.

4 So if there's a big tree hanging over the house
5 that would be catastrophic if it fell but it's very
6 unlikely to fall, it's low risk. It is a way through
7 matrices of describing risk and communicating it to
8 clients.

9 Q. Now, next it says you're a Pacific Northwest
10 Chapter of ISA certified tree risk assessor.

11 A. That was the TRA Program. It was a precursor to
12 the TRAQ Program. So while I achieved that in 2011 when
13 the TRAQ Program, the Tree Risk Assessment Qualification,
14 became available through the International Society of
15 Arboriculture, I went through that program. So it
16 supercedes the TRA Program.

17 Q. Okay. All right. Let's talk about some of your
18 selected professional society responsibilities. You are
19 a member of many different arborist and tree associated
20 professional societies; correct?

21 A. Yes, current.

22 Q. What is the -- what is WCISA?

23 A. WCISA is a Western Chapter of the International
24 Society of Arboriculture. There are 25 or so chapters in
25 the U.S. of the ISA and then there are some Canadian
26 chapters. There are chapters in various other countries.

1 Q. What is a consulting arborist committee?

2 A. While the International Society of Arboriculture
3 isn't really engaged much in consulting, they do maintain
4 a committee that looks out for the interests of
5 consulting arborists. So that would -- at the time we
6 were dealing with some licensing -- potential licensing
7 issues and conflicts with the state foresters.

8 Q. What is the ASCA?

9 A. American Society of Consulting Arborists is an
10 organization of strictly consulting arborists, people who
11 do what I do. Some of them are full-time consulting
12 arborists, some of them are working, as I did from 1988
13 to 1995, operating tree services and also consulting.
14 It's geared toward training and marketing -- helping
15 consultants train, market, and understand their
16 responsibilities as consultants.

17 Q. And I see you have served as both the co-chair
18 and the chair in the ASCA Standards of Professional
19 Practice Committee. What is a Standards of Professional
20 Practice Committee?

21 A. The active standards of professional practice
22 provide guidance on competence, who can be competent,
23 what defines a competent consulting arborist, due care in
24 carrying out assignments. Independence, impartiality,
25 report writing protocols. That sort of thing. And it's
26 a seven or 8-page document that provides that sort of

1 guidance.

2 At the time I chaired it we also had a component
3 of a disciplinary component which is no longer in place.

4 Q. Now, do any of these societies whether it's the
5 International Society, the American Society Consulting
6 Arborists, the Western Chapter, or any of the other
7 tree-related professional organizations have professional
8 publications for their members?

9 A. Yes. They all do.

10 Q. And have you taken part in or yourself written
11 articles that have been published for other arborists or
12 consulting arborists?

13 A. Yes, I have.

14 Q. Our next list on your resume is publications.
15 Are those articles that you have either
16 contributed to or actually written yourself?

17 A. They are.

18 Q. First up an article entitled -- well, let's go
19 from the bottom so we do it chronologically. "A
20 Photographic Guide to the Assessment of Hazardous Trees
21 in Urban Areas."

22 Do you recall that publication?

23 A. Very well.

24 Q. What is that publication?

25 A. It grew out of some work that another consultant
26 and I did for the East Bay Regional Park District in 1989

1 when we were developing a risk management program for
2 them. And part of that risk management program was to
3 train the regional -- each regional park -- and there's a
4 number of regional parks in the regional park district.
5 Train each local administrator on how to filter and find
6 the trees that they thought we should look at in a more
7 advanced fashion.

8 And Nelda Matheny, the other consultant on
9 this -- one of the other consultants on this said
10 "Wouldn't it be handy if we had photographs of each of
11 these types of defects or tree characteristics that we
12 could illustrate."

13 And she and Jim Clark, who was at University of
14 Washington at the time, co-authored this. I was the
15 technical advisor and the principal photographer for it.
16 And it has been the international go-to book on tree risk
17 management in urban areas for populations of trees for --
18 well, since 1992 up until the TRAQ Program really took --
19 took hold. And now there are other protocols. It's
20 still in use. And it can be -- it can be mixed and used
21 with the TRAQ Program.

22 Q. All right. Next publication is entitled "A Test
23 of Drilling as a Method of Direct Detection of Decay in
24 Trees." What is that article?

25 A. Well, now we have ways we can image the inside
26 of the tree. We have tree radar. We have sonic

1 tomography. We have what are called resistance drills
2 that send a three millimeter wide probe into the tree up
3 to half a meter and by Bluetooth they transmit the
4 results of wood density. The tip is attached back to a
5 computer and it creates a graphic. It looks like a --
6 well, it creates a -- you'll see one of these graphics
7 later.

8 That instrument was just starting to be used
9 when we created this -- this test of drilling. And we
10 were just using an eight-inch by one-foot long drill bit
11 to see if we could feel where decay was and where
12 cavities were. And we presented that at a paper in Salt
13 Lake City that year to the National Society of
14 Arboriculture. And we were able to find decay.

15 Q. Before we move on from that, you used a term
16 "sonic tomography." What is sonic tomography?

17 A. You attach a series of sensors up to a couple of
18 dozen sensors around the trunk of a tree, tab each
19 sensor, and it sends an impulse to each other -- every
20 other sensor. That's all manipulated by a computer
21 program. We go through the entire sequence of sensors
22 and it creates an image of sound speeds inside the tree
23 which correlates to decay or cracks or voids inside the
24 tree. So it gives us a two-dimensional image across that
25 plain. And we can take multiple plains and combine those
26 to 3D images.

1 Q. It looks like in 2012 you were involved in an
2 article or presentation "Forensics and the CSI Effect."

3 A. That was an article for the American Society of
4 Consulting Arborists newsletter. And we see all these
5 magical things happen in CSI where they can zoom in on a
6 license plate from a thousand yards away, clarify it, and
7 they can read the numbers. Well, they can't really.

8 And this whole article dealt with unrealistic
9 expectations that clients might have and how we manage
10 those and what it is we really can do. Because a lot of
11 our work if we're working in litigation at all, is this
12 forensic work trying to determine what happened, why it
13 happened, who should have known it happened? And so that
14 article addressed the difficulty of working around
15 unrealistic client expectations.

16 Q. In 2015 an article entitled "Tree Appraisal:
17 Would it be Missed?" What is that article?

18 A. One of the types of assignments we may take is
19 when trees are damaged by fire or one neighbor wants a
20 better view of the lake and they cut down the neighbor's
21 tree. So how much is that tree worth?

22 This article discussed a number of the factors
23 that go into appraising those trees, coming up with
24 dollar valuations and particularly this one with whether
25 the tree was prominent or not.

26 Q. Finally, an article entitled "Adequate and

1 Appropriate Methodology." What is that article?

2 A. As consulting arborists we may have assignments
3 that involve advising the municipality on one of their
4 big trees in a park. Is it safe? How do you make it --
5 how do you reduce the risk?

6 It may be because the tree has failed and caused
7 damage or injured someone or killed someone. In that
8 case we are looking at why that tree failed and under
9 what circumstance and could somebody reasonably have
10 predicted that and who would that be and what levels of
11 standard of care might different people have to meet.

12 Appraisal that I just mentioned -- I do a lot of
13 work on construction sites. The developer comes in and
14 wants to subdivide. And so we're assigned to protecting
15 the trees they have decided they want to preserve. So
16 there are different methodologies and bodies of practice
17 and instruments that we use for each of these different
18 kinds of assignments.

19 This is a discussion of what those methodologies
20 are, which are adequate. When is enough enough so that
21 you're not charging the client for a lot of stuff that
22 isn't needed, but you are doing everything that is
23 reasonably adequate to fulfill your assignment?

24 Q. Before I forget -- I think I forgot at the
25 beginning of the start of this to ask you what is the
26 name of your company?

1 A. Oh, McNeil Arboriculture Consultant LLC.

2 Q. And finally, under the services that you offer
3 it says "Tree risk assessment." What is tree risk
4 assessment?

5 A. I mentioned earlier that tree risk is the
6 likelihood of an adverse event occurring and the result
7 or the consequence of that event. Different clients of
8 ours have different risk tolerances. Some people -- I've
9 had clients who had trees that were standing upright by
10 one skinny root, and they didn't care if it was going to
11 fall on the house. They wanted that tree.

12 I've had other clients -- and I got a call from
13 one this morning -- that will accept no risk at all.

14 Well, there is always risk around any tall heavy
15 object. Our job is to describe the amount of risk there
16 is, present that to the client, help them decide if it
17 exceeds their risk tolerance, and advise them on
18 alternatives for managing that tree to see if the risk
19 can be reduced to a level that is within their tolerance.

20 Q. How do you do that? How do you assess a tree?

21 A. Start visually, look for body language
22 indicators that might be bulges, indicators of internal
23 cracks, beehives, nesting holes for birds. Look at the
24 bottom of the tree to see if the soil grade has been
25 changed that can foster decay.

26 Start with a sounding mallet, sometimes a

1 hickory mallet and sometimes a rawhide mallet, for the
2 different tones to see if the bark is dead and not
3 detached to the tree or if it's hollow under the bark or
4 under the wood. And at that point, we talk to the client
5 about whether they want to go into something advanced,
6 whether they want to spend the money to excavate and
7 evaluate the soil from the base of the tree or if they
8 want to have us spend quite a few hours using a
9 resistance drill or sonic tomogram. And then we make
10 judgments about what we see with those instruments.

11 First, we have to make interpretations of
12 whether that instrument is telling us that we're looking
13 at sound wood or unsound wood and then we have to decide
14 whether that attribute or defect there really makes a
15 difference and decide how much probability, what
16 likelihood we think there is that a tree may fail in some
17 given period of time. Five years, 10 years.

18 Q. How does a sounding mallet help you assess the
19 health of a tree?

20 A. Well, this (indicating) desk is solid. It's
21 probably not a good -- it's probably not a good
22 demonstration. A hollow tree may sound more like a drum.
23 A small hollow may sound like a drum in a localized area.

24 Q. Why is that important to a tree's health?

25 A. It may not be so important to a tree's health
26 because a tree's health is governed by tissues on the

1 outside that -- where the vascular tissues are, but it
2 may be important to the tree's structure, ability to
3 stand up.

4 Engenders use pipes a lot for structural
5 elements. They're hollow. All the -- all the structure
6 in the pipe is around the outside. Trees can be hollow
7 as long as they're perfectly cylinder and hollow in the
8 center and still have a low likelihood of failure unless
9 that wall gets too thin.

10 If the defect such as a hollow is not centered,
11 then there is a much higher probability that a tree will
12 fail as a result of that defect particularly if there is
13 a crack on the one side.

14 So we need to look using instruments we have or
15 visually and just a mallet to determine what's sufficient
16 to make some decisions to give a client advice on what
17 the likelihood of that tree failure is and what the risks
18 are associated.

19 Q. What kind of things are you looking for when you
20 are doing a visual inspection of a tree as part of a risk
21 assessment?

22 A. Well, I mentioned bird nesting holes and
23 beehives because, you know, there's going to be a cavity
24 of some kind. It may or may not be an indicator that the
25 tree is likely to fail at all. Often it isn't. But
26 we'll be looking particularly for native Oaks whether

1 there's still soil around the base of the tree and we
2 will be listening to the mallet tones.

3 Q. All right. Let's move on. We're not going to
4 go through this one quite as in depth, but you should
5 have 518 in front of you as the next exhibit.

6 A. Yes.

7 Q. What is Exhibit 518?

8 A. That is a longer CV that has a partial list of
9 what I've done over the years, continuing education that
10 I've been involved with over the years. It has the list
11 of licenses and certifications. I think that is
12 duplicated in Exhibit 517.

13 It has a more exhaustive list of professional
14 association responsibilities over the years. It has a
15 list of speaking presentations. It's the long version of
16 the resumé Exhibit 517.

17 Q. What kind of people or businesses hire you to --
18 for your expertise?

19 A. Homeowners, homeowners' associations, attorneys,
20 plaintiffs' attorneys, defense attorneys, insurance
21 companies, counties, municipalities.

22 Q. How about utilities?

23 A. Utilities, yes.

24 Q. Have you ever been hired by PG&E in your
25 capacity as a certified master arborist?

26 A. Yes, several times.

1 Q. Without going into depth as to any cases, what
2 kinds of things did PG&E hire you to do?

3 A. In two cases I was hired specifically to
4 investigate causation of fires. Pandola Fire was one.
5 And I don't recall the year. 2003 through 2006. Tim's
6 Mountain in 2011 outside of Hayfork, Weaverville, Trinity
7 Alps.

8 In both cases trees had failed onto conductors
9 and sparked fires. And the question being asked of me
10 was "Why did this tree fail? How could it have been
11 detected? Should it have been detected?

12 A third --

13 Q. I was going to say has PG&E ever hired you for
14 anything other than post-fire tree risk assessments?

15 A. Yes. In 2013 I participated in a PG&E fire risk
16 reduction pilot study in which they provided a team of a
17 dozen or so senior tree inspectors or line inspectors,
18 the people that do the pre-inspections for PG&E. This
19 was a company called Arbor Matrix. And my portion of
20 this project was to provide the advanced assessment for
21 them if they encountered a tree they thought justified
22 it.

23 Because this was a pilot study, they were trying
24 out whether this kind of protocol might be predictive.
25 My particular portion of it was carried out in Paradise.
26 When they identified the tree that they thought should

1 have a resistance drill or a resistance graph or a
2 tomograph assessment, I would go look at that tree. And
3 we did that in 2013 for a couple of weeks in Paradise.

4 Q. Do you also contract with Cal Fire?

5 A. Yes.

6 Q. How long have you been contracting with Cal
7 Fire?

8 A. About a year and a quarter, I believe. Year and
9 a half.

10 Q. So you started contracting with Cal Fire around
11 2018?

12 A. Yeah. Middle or early 2018.

13 Q. And what do you do for Cal Fire?

14 A. Cal Fire calls me if there's an event, a fire
15 that they think was started by a tree, tree limb, tree
16 trunk, some kind of a failure or contact of the tree with
17 a conductor. They want my opinion on why that tree part
18 contacted the conductor and an opinion of how that might
19 have been detected in advance or whether it could have
20 been detected in advance.

21 Q. In November of 2018 were you asked by Cal Fire
22 to assist with the investigation in the Camp B Fire?

23 A. Yes. They called me within a couple of hours of
24 ignition and asked me to remain on call. And it was
25 several days later, nearly a week -- I think on
26 November 14th they called me to go up. And we went, I

1 think, on November 15th.

2 Q. And what was the purpose or your purpose in the
3 Camp B Fire investigation?

4 A. Initially, it was no different than what I
5 described; to look at specific trees. And as soon as we
6 got there, we saw one tree down on a conductor with Cal
7 Fire investigators working around that tree and a second
8 tree that were later identified as trees 39 and 58.

9 We collected -- that first day we just collected
10 all the data we could on those two trees. And I was
11 later instructed that we should focus our attention on
12 tree 58. We returned a second day three days later. I
13 think it was the 17th. So maybe the first day was the
14 14th. I'll have to check dates here where it's in a
15 report. I don't recall that with specificity.

16 Because I wanted to collect a broader range of
17 data on all the trees that were within or near tree 58.
18 I wanted to have an understanding of tree attributes,
19 tree defects on them, whether they failed or didn't fail.

20 The goal of that was to be able to understand
21 whether this group or suite of characteristics would be
22 predictive in this event of -- of the trees that failed
23 versus the trees that didn't fail. That was the goal of
24 the second day when we collected information on another
25 82 or 83 trees.

26 Q. So did you put together an inventory of the

1 trees in and around the area of origin of the Camp B
2 Fire?

3 A. Yes, I did.

4 Q. Moving on to Exhibit 519 in front of you. Do
5 you have 519?

6 A. I do.

7 Q. You recognize 519?

8 A. Yes, I do.

9 Q. What is Exhibit 519?

10 A. Exhibit 519 contains blue pushpins and numbers
11 that correspond to each of the trees we looked at of
12 which are actually 84.

13 Q. Did you create Exhibit 519?

14 A. Yes. I did that from Google Earth. This was a
15 Google Earth image from December of 2018 after the fire.
16 And we used a Garmin GPS hand-held unit at each base of
17 each tree to locate its -- provide its location,
18 downloaded or uploaded these to a management program, and
19 then over to Google Earth which imported them and
20 inserted these pushpins, and then I modified it to put
21 the numbers on correctly.

22 Q. So what do each of the blue pushpins represent?

23 A. Each one represents one tree.

24 Q. And what do the numbers represent?

25 A. The number next to and actually to the left of
26 and just below each pushpin is the number of that tree.

1 Can I go over to the --

2 Q. Yes, absolutely. Feel free to get up and use
3 the Smart Board.

4 A. Okay. So I'm going to point to some pushpins
5 here at the bottom left.

6 Q. There. That will give you a few more feet.

7 A. Okay. Am I on or did we disconnect?

8 Q. Who knows. Yep, it's on.

9 A. Okay. We're on.

10 MR. NOEL: I thought maybe you guys killed my
11 microphone.

12 GRAND JUROR NUMBER EIGHTEEN: Only on
13 Wednesdays.

14 THE WITNESS: The lower part or the bottom of
15 this image on the left side is a group of numbers that
16 runs from 59 through 66 or something like that. And
17 above that is what looks like a bunch of trees. However,
18 this was taken in the afternoon in December close to
19 winter so the sun is low.

20 So tree 61 is actually pointing largely straight
21 up toward the camera. And what you're seeing above these
22 numbers that look like trees are actually the shadows of
23 the trees. So there aren't trees in this area above the
24 blue pushpins. It's just shadows. That's why it's
25 absent there.

26 Okay. Go ahead. And I will want to come back

1 to that in a minute. Thank you.

2 BY MR. NOEL:

3 Q. Okay. So you created this image with all the
4 blue pushpins and the numbers to represent each one of
5 the trees that you surveyed; correct?

6 A. Yes.

7 Q. And did you catalog each one of those trees?

8 A. I did.

9 Q. Next you're going to move to what's marked next
10 to Exhibit 520. Do you have 520 there in front of you?

11 A. I do.

12 Q. What is Exhibit 520?

13 A. Exhibit 520 is a printout of the spreadsheet
14 that contains the attributes of the 84 trees and some
15 comments on some of them.

16 Q. So walk us through and explain this spreadsheet
17 to us.

18 A. Okay. The first column is pretty explanatory.
19 It's the number of the tree.

20 Q. So that number would match up with the numbers
21 on Exhibit 519 --

22 A. Yes.

23 Q. -- affixed to the blue pushpins?

24 A. Yes, it does.

25 Q. All right. The second is species?

26 A. The second is the species of the tree; Ponderosa

1 Pine, Incense Cedar, Black Oak. And there was a fourth
2 species that I believe was Douglas Fir. Those were the
3 four species we found.

4 The next number is diameter, the distance across
5 the trunk, at four-and-a-half feet above the ground.

6 Q. Why four-and-a-half feet?

7 A. It's a conventional forestry height. It gets
8 argued all over the place whether it ought to be four
9 feet or five feet. And it's different in Canada and it's
10 different in Europe, but here it's four-and-a-half feet.
11 So by convention.

12 Q. Are you familiar with the term "diameter at
13 breast height." Is that a common term for arborists or
14 used by arborists?

15 A. Yes. And there's also diameter at standard
16 height.

17 Q. What is the difference between the two?

18 A. Mostly terminology. In Knoxville there was a --
19 there was a teacher who -- who stood up in one of the
20 sessions and complained about the term "diameter at
21 breast height" because one student kept staring at her
22 chest. And so I guess there's -- there's that political
23 correctness factor.

24 But in Canada "diameter at standard height" has
25 a specific height, and it's not four-and-a-half feet. I
26 think it's -- I don't recall what it is, but diameter at

1 standard height in the U.S. is going to be synonymous
2 with diameter at breast height four-and-a-half feet.

3 Q. All right. So moving on to the next column is
4 "height, comma, feet."

5 A. That's the total height of the tree from the
6 ground to tippy top. We measured that with a laser range
7 finder.

8 Q. Explain to us briefly how you are able to
9 measure that height with a laser range finder?

10 A. There are two of us. For the most part, I stood
11 at the bottom of the tree with the GPS unit. And we
12 located and collected these attributes and notes that you
13 see here. My son works with me. He stood a couple
14 hundred feet away with a laser range finder which is just
15 a small instrument handheld. It has a level in it and it
16 has a compass in it and it has the capability to do a
17 whole lot of trigonometry.

18 So when you point it, you can look through it
19 like a monocular. And when you point it at an object and
20 push a button, it will send a laser out and back and read
21 what the reflection is off the tree. And it does that up
22 to half a mile away on a tree.

23 One of the routines that it has is if you then
24 aim it at a second object, it will tell you the distance
25 between those horizontally. So it would be the
26 horizontal projection. It will tell you what the

1 vertical distance is between them. It'll tell you what
2 the distance along the hypotenuse of that triangle is,
3 the slope distance. It will tell you what the azimuth is
4 between one -- the first point and the second point. How
5 far is it off north? It's calibrated for declinations so
6 it should give you a true north.

7 It gives you more information than we used here.
8 So we simply used it to get the vertical distance between
9 the ground and the very top of the tree. And he had to
10 be standing back far enough so he could see both easily.

11 Q. What is the crown distance in the next column
12 over?

13 A. The crown distance --

14 If I can go back here. Can we go back one.

15 Q. Back to slide five -- or Exhibit 519.

16 A. I'm going to go to -- this is tree 17. I'm
17 going to point out tree 17.

18 Q. Here, let's pull this up a little bit and then
19 you can -- there. Now, you've got the microphone and
20 you're not standing on the edge.

21 A. Okay. Put the microphone back together.

22 I forget. If I zoom this, can I then draw or --

23 Q. Yes.

24 A. Okay. So tree 17 is right here (indicating).

25 Okay. I won't zoom it.

26 Q. Hold on.

1 A. I'll just draw, I think.

2 The base of tree 17 is right here (indicating).
3 There is a line going toward tree 18 that is actually the
4 trunk of tree 17 because the satellite that took this
5 picture wasn't directly above tree 17. They've corrected
6 this so that it looks -- it appears that you're looking
7 vertically down but, in fact, all the vertical elements
8 are tilted over in this (indicating) direction to the
9 southeast.

10 The top of tree 17 is right there (indicating),
11 and tree 18 has fallen into tree 17. But the bottom of
12 the foliage on tree 17, the lowest point of that foliage
13 crown is in that middle section. The distance between
14 the top of the tree and this middle section is the crown
15 distance. That is how many feet there is of this live --
16 of live limbs. And that's called live crown.

17 The reason that is important -- if I can jump to
18 the last column, the last narrow column LCR, live crown
19 ratio, is a ratio between this crown distance, this live
20 crown, and the entire height of the tree.

21 Q. All right. So let's mark this so that in the
22 future we have it.

23 So down here on the left in blue that's the base
24 of your tree; right?

25 A. Yes.

26 Q. Up here is the top?

1 A. Yes.

2 Q. And this middle line is the base of the crown?

3 A. Base of the crown or base of foliage, base of
4 limbs.

5 Q. Let's go "base of foliage."

6 So this (indicating) between the top and the
7 middle line, the top and the base of the foliage, that is
8 what is referred to as your live crown?

9 A. Yes, or crown distance in this table.

10 Q. Okay. So before we move on, anything else that
11 we're missing on this?

12 A. No.

13 Q. Okay. So let's save that. All right. So that
14 is saved. And that will be -- we'll start off today
15 519-A. And we'll deal with that.

16 [Exhibit 519-A marked
17 for identification.]

18 BY MR. NOEL:

19 Q. Okay. So now going back to 520, you started
20 talking to us about the column marked "LCR."

21 A. The reason that is important is the trees that
22 have a bigger live crown ratio tend to be more stable.
23 So if this distance here, if these limbs go --

24 Now, if I hit "X," will it take just this last
25 one off?

26 Q. No. It will take all of them.

1 A. Never mind.

2 Q. But we've got it saved.

3 A. I'll try not to touch it again.

4 Q. It's saved. What you've already done at this
5 point is already --

6 A. If this distance, if these limbs go all the way
7 to the ground, that would be a live crown ratio of
8 100 percent. So 100 percent of the trunk is covered with
9 limbs. If they go halfway up, that would be a 50 percent
10 live crown ratio. And if you look on Exhibit 520 and you
11 look at tree 17, you will see that has a live crown ratio
12 of 59 percent. So it looks about right here.

13 Trees that have a large live crown ratio are
14 relatively fat at the base, skinny at the top, and half
15 as fat halfway up. The wind hits them and they move
16 around and whip back up. They are relatively stable. So
17 that is an important matrix to have.

18 I think it would make sense if I talk about HD
19 ratio at the same time.

20 Q. Okay. Let's go to the next column which is "HD
21 ratio."

22 A. That's height diameter ratio. Trees that have a
23 large live crown ratio -- they're big at the base and
24 relatively short -- tend to have a low height diameter
25 ratio. They're not very tall for as wide as they are. A
26 high diameter ratio is just the height in feet compared

1 to the diameter in feet at four-and-a-half feet.

2 If a tree is more than 50 times as tall as it is
3 wide, there is some literature and some researchers have
4 suggested it's more likely to fail. That really depends.
5 If it's a community of trees growing close together, they
6 are all going to be tall, skinny trees. Generally, there
7 should be an inversion relationship between height
8 diameter ratio and live crown ratio. A large live crown
9 ratio should correlate on most trees with a small height
10 diameter ratio. And in this population of 84 trees
11 generally that is true.

12 A height diameter ratio may be an indicator that
13 a tree is more likely to fail if it's a large number.
14 Live crown ratio may be an indicator that the tree is
15 likely to fail if it's a small number. It just has a
16 little bit of foliage up at the top. And usually, it
17 doesn't have much taper to the trunk. So it has a height
18 diameter ratio. That's why we collect these numbers.

19 We collected -- we also made an observation, if
20 I can go back to significance defects now.

21 Q. Okay. Before we get to that though, so a
22 perfect tree is basically going to be 50/50 on the height
23 diameter ratio and LCR?

24 A. No, depending on how you define a perfect tree.
25 Are you meaning a perfectly most stable tree?

26 Q. Yes, a most stable tree.

1 A. A most stable tree will have a large live crown
2 ratio. Young Redwoods grow with their foliage all the
3 way to the ground. They are really stable in that phase
4 of their life.

5 Q. So if you look on this catalog, tree number 24
6 is a Ponderosa Pine. It has the lowest LCR at 29 percent
7 on this page, but it also has one of the highest HD
8 ratios at 78 on this page.

9 A. Those are both indicators that are in the right
10 direction. Because you expect the high HD ratio to
11 correlate with the low live crown ratio. And you'd
12 expect that tree to fall over, but it didn't. I don't
13 know why.

14 Q. The term I've heard before is a giant toothpick.

15 A. Yeah, that works. But it remained a giant
16 standing toothpick after everything else around it.

17 Q. When you're doing tree risk assessments, how
18 would you rate that tree tree number 24?

19 A. I don't have enough information here to tell you
20 with much confidence how I'd rate that. What I have is I
21 note that it had no significant defects.

22 Can we talk about that in a minute?

23 Q. Yep. We can move on to that.

24 The column next to crown distance is significant
25 defects. What does that mean?

26 A. We talked about decay and bird nesting holes and

1 injuries from road building. A Caterpillar hits the
2 grader that hits the tree. Fires, previous fires that
3 cause injury. Decay gets started, internal decay. Is it
4 central decay? Are there cracks in the tree? Is it
5 sound, but it's fractured?

6 We didn't do an exhaustive examination of each
7 of these trees. We looked at them visually and we used
8 the sounding mallet and we took photographs of them, but
9 we didn't use a resistant drill on most and we didn't use
10 a sonic tomograph and we didn't use ground penetrating
11 radar or any other kinds of tools that there are.

12 So I can't say with certainty that this didn't
13 have some defect, but it didn't have the kind of defect
14 that I would normally detect in a reasonably conducted
15 visual assessment.

16 So did the tree lean? I don't have -- we don't
17 have a note on that one. And if it had extremely, that
18 would -- and it looked like there was a lean prior to the
19 fire, that would be a defect that we'd note. I don't
20 think we saw any of those in this.

21 Q. I'm guessing that when you say you charted
22 significant defects, that these are significant prefire
23 defects?

24 A. Yes, because we're talking about attributes that
25 would have been visible before the fire that would have
26 been predictive of the behavior of the tree during and

1 just before the fire.

2 Q. And did you find trees in the general area of
3 origin that did show significant defects that would have
4 been visible prior to the fire?

5 A. We did. I think the most pronounced of those
6 was tree 30. It did have trunk wounds that we couldn't
7 determine with certainty, but it had an open wound that
8 was open prior to the fire from the ground up to
9 somewhere between six and ten feet because it had burned.
10 We couldn't tell where it had been previously opened, but
11 that open wound covered 40 percent of the circumference,
12 which is almost half the tree was missing on one side and
13 the interior of the tree was decayed.

14 So that tree would have been kind of a
15 no-brainer. And it did follow the rules. It fell over.
16 It was downhill of the conductors, and it fell away from
17 the conductors.

18 Q. The next column is entitled "Fail." What's that
19 column mean?

20 A. Either it fell or it didn't fall. It's biome
21 standing or falling.

22 Q. So if there's an "N" in that column, that tree
23 didn't fall?

24 A. Did not fall.

25 Q. If a "Y," then, yes, the tree did fall?

26 A. That's correct.

1 Q. Finally, the big wide column on the right is
2 "Comments." What can you tell us about that column?

3 A. If there was something notable about that tree,
4 I made notes. A lot of the trees didn't have anything
5 particularly notable about them.

6 Q. All right. Now, you said earlier that your
7 focus was primarily on two trees number 39 and number 58.

8 A. Correct.

9 Q. And those are listed in your tree inventory?

10 A. Yes.

11 Q. Let's walk through 39 real quick. What type of
12 tree was 39?

13 A. Ponderosa Pine.

14 Q. And what was its diameter of breast height?

15 A. Nineteen inches.

16 Q. How tall is the tree?

17 A. One hundred four feet.

18 Q. What was the crown distance?

19 A. Eighty-two feet. Is that 82? This is a
20 little -- 62.

21 Q. Did you see any significant defects on tree
22 number 39?

23 A. Yes, we did.

24 Q. And did tree number 39 fail?

25 A. Yes, it did.

26 Q. What was the HD ratio of tree number 39?

1 A. HD ratio is 66 percent, live crown ratio
2 60 percent.

3 Q. All right. Now, moving down to tree number 58,
4 what type of tree was 58?

5 A. Also a Ponderosa Pine.

6 Q. And what was its diameter at breast height?

7 A. Twenty-two inches.

8 Q. It's height?

9 A. One hundred thirty-four feet. I will give this
10 back to you.

11 Q. The crown distance?

12 A. Crown distance is 77 feet.

13 Q. Did you note any significant defects to that
14 tree?

15 A. Yes, we did.

16 Q. And did that tree fail?

17 A. It did.

18 Q. What was the height to diameter ratio of that
19 tree?

20 A. Seventy-three.

21 Q. And the LCR of that tree?

22 A. Fifty-seven percent.

23 MR. NOEL: All right. It's almost 2:30. We've
24 been in session for almost an hour and a half. This is a
25 good point to take an afternoon recess and come back and
26 finish him up with the actual tree photographs

1 themselves.

2 GRAND JURY FOREPERSON: Okay. All right. We
3 will recess 15 minutes.

4 MR. NOEL: All right.

5 GRAND JURY FOREPERSON: Okay. Before we do,
6 Mr. McNeil, I need to issue an admonishment to you.
7 Sorry.

8 Mr. McNeil, you are admonished not to discuss or
9 disclose at any time outside of this jury room the
10 questions that have been asked of you or your answers
11 until authorized by the grand jury or the Court. A
12 violation of these instructions on your part may be the
13 basis for a charge against you of contempt of court.
14 This does not preclude you from discussing your legal
15 rights with your own attorney.

16 Mr. McNeil, what I have just said is a warning
17 not to discuss this case with anyone except the Court,
18 your lawyer, or the district attorney.

19 Do you have any questions?

20 THE WITNESS: No, I don't.

21 GRAND JURY FOREPERSON: Okay. Thank you.

22 [Recess taken from

23 2:28 until 2:44 p.m.]

24 GRAND JURY FOREPERSON: All members of the grand
25 jury have returned, and we can proceed.

26 **EXAMINATION CONTINUED**

1 BY MR. NOEL:

2 Q. All right. So we talked about earlier you went
3 out to the scene and started an evacuation. You said you
4 focused mainly on tree number 58 and tree number 39;
5 correct?

6 A. Correct. We started with tree 39 because that
7 caught our attention.

8 Q. All right. You have in front of you a
9 photograph marked as Exhibit 521. Did you see 521?

10 A. I do.

11 Q. Do you recognize 521?

12 A. Yes.

13 Q. Did you create 521?

14 A. I did.

15 Q. What is Exhibit 521?

16 A. Exhibit 521 is based on the same aerial as the
17 earlier 519 with the pushpins turned off and a line drawn
18 to show where the conductors were prior to the event.
19 They don't show in the Google Earth December 2018 aerial,
20 but Goggle Earth provides a historical slider that you
21 can slide back to previous versions of the same aerial
22 and you can see the trees in the same places and you can
23 see the conductors.

24 So I drew the conductors in on an older aerial
25 and then brought the slider back up to December 2018, put
26 in trees 39 and 58. You can see that tree 58 is gone and

1 there is an equipment track that goes from Concow Road
2 down to where tree 58's trunk was.

3 Tree 39 is a tapered dark line that runs left
4 west from the white dot by "39." That's not a shadow.
5 That's an actual trunk on the ground.

6 There is a yellow "CF1" dot. Make a note of
7 that. It will be important a couple more exhibits down
8 the road here.

9 Q. Okay. You said that there's equipment tracks.
10 Can you show us what you're talking about.

11 A. Yes. Do you want me to diagram that?

12 Q. No. Just show it.

13 A. Concow Road is labeled and Rim Road is labeled.
14 And this (indicating) track that comes from the
15 intersection of Concow Road and Rim Road down to -- just
16 down slope west of tree 38 is an equipment track. None
17 of that track was present during our site visit.

18 Q. Okay. Do you know why equipment was dragged or
19 driven down to that location next to 58?

20 A. That tree was big. It needed equipment to haul
21 it out. I suppose alternatively they could have used a
22 crane from Concow Road. They didn't.

23 Q. All right. So let's move on to Exhibit 522. Do
24 you have 522 there?

25 A. I do.

26 Q. What is 522?

1 A. Exhibit 522 is tree 39 looking from the east
2 with -- if you go back to Exhibit 521, it would be from
3 the intersection of Rim Road and Concow Road looking
4 toward tree 39, the east side of tree 39. The scale on
5 the right side alternates black and white in one foot
6 increments.

7 Q. Okay.

8 A. This -- the rest of tree 39 is on the left side
9 of the photograph butt end of that log pointing toward
10 the photographer looking down the tree trunk.

11 Q. So tree 39 failed?

12 A. Tree 39 failed. And if you look to the left of
13 that black and white scale, in the center of the tree
14 there is a strip of exposed wood. And it will show up a
15 little better in the next exhibit, I think.

16 Q. Okay. Let's go on to 523.

17 A. Exhibit 523 is a close-up of 522 at about four
18 feet above the ground. And this area here (indicating)
19 was probably free of bark prior to the fire, this area
20 where there were wood-boring insects in here. You can
21 see some holes that came out to the surface on one side.
22 So this is -- this is a feature that was visible to us
23 that probably was visible prior to the fire but only from
24 the intersection of Concow Road and Rim Road.

25 Q. Why is that significant?

26 A. Well, depends on the protocol for examining

1 these trees by the tree inspector for the utility. If
2 their protocol is to walk down the right of way, they are
3 going to be on the downhill side of this tree on the side
4 away from this feature. They're going to be on the west
5 side of the tree, and this feature can only be seen by
6 the east side of the tree.

7 And we don't know what intervening foliage there
8 was, whether there was tall undergrowth that may have
9 been obscured on this end from the east side. We just
10 can't know that.

11 Q. Why did this tree tree number 39 attract your
12 attention?

13 A. Number one, it was laying on top of the
14 conductors. And at that point within the first hour of
15 our being on site no one had told us what to look at. We
16 were looking at what caught our attention. And so this
17 was one of the two accessible trees that were on the
18 conductors. And it had what appeared to be a defect that
19 was likely visible prior to the fire.

20 Q. So when you say "on the conductor," you're
21 talking about this (indicating) top part of the tree that
22 broke off?

23 A. Yes.

24 I'm going to come down to your -- the conductors
25 can't be seen in this photograph, but they cross under
26 the tree just under where you see the lowest limbs. I

1 think that was about where the conductors were laying on
2 the ground.

3 Q. So going back here to 521, your yellow line
4 intersects with tree number 39?

5 A. Yes.

6 Q. And going back to tree number 39 on this picture
7 that was post fire, this Google Earth snapshot, that
8 actually shows the tree laying on the ground; correct?

9 A. That shows the tree laying on the ground and it
10 shows the conductors that -- this is their aerial
11 position prior to the event. When the trees went -- when
12 the conductors came down, the tree may have struck them
13 and pushed them to one side or another. The wires
14 weren't laying in a straight line on the ground. They
15 were snaked back and forth a little bit. So this may not
16 be the exact position of the conductors after the fire,
17 but it's not far.

18 Q. Okay. Now, let's move on to 524. You said when
19 we were talking about 521 earlier, that "CF1" would come
20 into play. So let's talk about 524.

21 A. "CF1" on 521 is the point from where this
22 photograph was taken. And that is actually a whole
23 series of seven or eight photographs that I took looking
24 to the south down Concow Road and finishing looking to
25 the north up Concow Road which is straight.

26 In this photograph it looks like it's bent.

1 That's just because of the stitching program that puts
2 these half dozen photographs together bent it in order to
3 keep the trunks upright and straight.

4 Q. So tell us what we're looking at here.

5 A. So you're looking at -- on the left side you're
6 looking at the trunk of tree 58. You can see the yellow
7 line is approximately where the conductors were on the
8 ground after the fire. You can't see the tall stump of
9 tree 58. It's behind the tree in the foreground on the
10 left side.

11 Tree 39 is off to the far right. It may be --
12 it may be this short stump right here (indicating). It
13 may not be. It's not critical in this photograph, but
14 it's about in that vicinity.

15 Q. And did you create Exhibit 524?

16 A. I did.

17 Q. Can you explain how.

18 A. I used a photographic stitching program,
19 selected these half a dozen or so photographs, and told
20 it to stitch them together horizontally in a panorama.
21 And that's all I know about it. It's magic from that
22 point.

23 Q. And then what about the annotations on the
24 photograph. Did you add those?

25 A. Yeah. That is in Photoshop I added annotations.

26 Q. Why did tree 58 attract your attention?

1 A. Well, it too was laying on the conductors. Two
2 reasons; one it was laying on the conductors and, number
3 two, I was told it should attract my attention. So from
4 that point on we spent -- we spent our time documenting
5 tree 58.

6 Q. All right. So let's move on to Exhibit 525.
7 What is Exhibit 525?

8 A. Exhibit 525 is taken from just uphill from
9 Concow Road actually down the shoulder of a couple of
10 feet on Concow Road to the tall stump of three 58. And
11 the bowl at tree 58, the rest of the trunk is indicated
12 by that red arrow.

13 In the next several slides they're going to
14 be -- we're going to look on the bottom right side here
15 on the north side of the trunk where this is the east
16 side. We're looking downhill to the west. Now, we're
17 going to look at portions on the east/southeast side of
18 the bottom of this trunk. And then we're going to look
19 at a splinter -- a long splinter here and here
20 (indicating) that are attached to the fallen bowl of this
21 tree that ripped off from the west side of the stump.

22 Q. What are we looking at in the Exhibit 526?

23 A. Now we're looking at those two long strips. And
24 when you look at the ones coming straight down, you will
25 see on the right side it's a little bit longer. And if
26 you could briefly go to Exhibit 527, this is looking up

1 from the northwest. On the west side of the tree you can
2 see where that longer piece ripped out. And it's not
3 just bark. It's bark and the outer layers of wood that
4 lifted off that trunk.

5 In this print here (indicating), if you can go
6 back to 526, it matches this shape here (indicating) and
7 then this came off immediately adjacent.

8 Q. All right. So we're going back to 527.

9 A. And I should add these are less important in
10 themselves than they are just to help orient the log and
11 the stump and where we are in the world with those two.

12 Q. In 527 there's a yellow arrow pointing to
13 something on the tree. Did you place that yellow arrow
14 there?

15 A. I did.

16 Q. What is that yellow arrow pointing at?

17 A. It's pointing at wound wood. Wound wood is
18 wounds that -- wood that forms after some kind of injury.
19 It may be when you cut a limb off a tree, it's wood that
20 forms to close that wound around the edge of the wound on
21 the trunk from removing the limb.

22 Any time -- if a car hits the side of a tree
23 trunk and knocks the bark off, the tree will gradually
24 form wood from the sides to close the wound. Its term is
25 wound wood is what covers it.

26 In this case, this margin -- this yellow arrow

1 indicates a margin between wound wood and dead trunk
2 surface where previous fire killed the live tissues on
3 this trunk.

4 And I think in the next exhibit --

5 Q. 528.

6 A. -- 528 these two arrows are taken from at the
7 same point as the single arrow in 527. Exhibit 527 is
8 just to orient you as to where 528 is.

9 There are a couple of fingers of wood -- wound
10 wood, new life. And by "new life" I mean after whatever
11 injury caused these tissues up here to die. This is dead
12 and was dead prior to the fire. It may have been covered
13 by intact bark because it may just have been enough heat
14 to burn the bark and kill the tissue underneath. The
15 inner bark is alive. The outer wood is alive. The layer
16 in between those two can be alive, but the heat may kill
17 those live tissues without burning them completely or
18 causing them to come off.

19 So this may or may not have been covered by
20 burned bark like prior to the Camp Fire. But to the
21 right of this margin above this and to the right and
22 above this feature is dead. And this is live wood that
23 either wasn't killed and continues to grow and add margin
24 or it was protected from lower down by soil and has grown
25 up since.

26 From evidence that you will see in a minute I

1 think that this was left in place after earlier fires,
2 and it's just expanded since then. This is evidence of
3 what the condition of the tree was prior to the fire.

4 Q. So based upon what you're saying, part of this
5 tree was dead before November 8th?

6 A. Part of the surface. And I should -- the live
7 cells are on the outside, not on the inside. Dead
8 doesn't mean decayed. Dead can be sound. Dead may be
9 dried out so dead may be more brittle, but it's also
10 stiffer. So dead doesn't necessarily mean high potential
11 to fail. It certainly is an indicator. If you're aware
12 of it, you ought to look at it more closely.

13 Q. So when you'd be doing a tree risk analysis or
14 assessment, that would be something you would want to
15 look at?

16 A. Yeah. However, in my practice we look at one
17 tree or two or three trees and we have the luxury to stop
18 and poke and hit with a mallet and probe and take bark
19 off if it's dead. There has to be a reason. Each one of
20 those activities is an escalation of the investigation.
21 And at every step there needs to be some indicator that
22 you should escalate your investigation to justify the
23 extra cost of doing that and the extra time to do that.
24 So, yes, in my practice we do that.

25 Q. But the presence of the dead wood doesn't
26 necessarily mean that this tree is in trouble and a high

1 threat to fall over; right?

2 A. It doesn't necessarily mean that. It does mean
3 that if you're aware of the dead wood, it would be a
4 really good idea to check it further. But we don't know
5 if any of this dead wood was visible from within the
6 right of way. It was dead largely on approximately the
7 north, east, and south sides. So around three quarters
8 of this circumference was dead wood.

9 Q. I want to go back real quick. You keep talking
10 about right of way.

11 A. Oh.

12 Q. What is the right of way to your knowledge?

13 A. I'm talking about the utility right of way, not
14 the road right of way. The utility right of way is where
15 the wires were; the conductors.

16 Q. So the yellow line?

17 A. The yellow line.

18 Q. So the utility has a right of way down the line
19 which allows them to get in and work on the line and
20 inspect those things?

21 A. Right. And there may be a road right of way for
22 Concow Road, which is a separate right of way. I don't
23 know the particulars of this forest.

24 Q. So when you're talking about this damage shown
25 in 528, the dead wood, the wound wood, you're saying that
26 that wouldn't necessarily be visible from the right of

1 way. You're talking about someone who is walking the
2 power line?

3 A. Correct.

4 Q. What about somebody who's on the road?

5 A. I can't say with certainty they would have seen
6 it from the road either unlike tree 39 which looked like
7 to me it had a feature that was visible prior to the Camp
8 Fire. I don't know with certainty whether the Concow
9 Road side of this tree would have shown that it was dead;
10 that the bark had fallen off or not. And I don't know
11 how obscured it may have been by undergrowth.

12 Q. All right. Let's move on to photograph 529.

13 A. The 529 is looking from the southeast. Again,
14 you can see the fallen main trunk of the tree with it
15 splintered to the left side of the photograph. And at
16 the bottom center of this photograph is another tall
17 pyramidal fake finger of wound wood protruding upwards
18 that -- and 524 is again a wide view just to orient you.

19 And 530 -- oh, this is a 529. Excuse me. I
20 misspoke. Exhibit 529 is a wide view to orient you.

21 Exhibit 530 is a close-up of that same area with
22 the yellow arrows outlining the wood wound, the live
23 tissues that were present at the time of the fire.
24 Outside that wound was dead. And this is similar to what
25 we saw on the opposite side of the tree.

26 Q. Okay. So inside those yellow arrows in that

1 area you say is live?

2 A. Yes.

3 Q. But the outside is dead?

4 A. Yes, prior to the fire.

5 Q. Prior to the fire.

6 And do you have an opinion as to what caused all
7 of this dead on it? The dead wood on this tree?

8 A. Well, we know that there were a series of prior
9 fires that went through here. And there was one, I
10 think, in 2001 and I think one on 2008. Those show --
11 you'll see those in a few minutes. And it's likely that
12 those previous fires are the cause of these dead tissues
13 that you're seeing on these trees.

14 Q. But either way there seems to be quite a bit of
15 dead wood on the trunk of this tree?

16 A. Yes, the three-quarters of the circumference.

17 Q. And were you able to measure a height level as
18 to how far up or down that damage extended?

19 A. No, because it was so burned -- both on the
20 fallen part of the tree and the stump, it was so burned
21 on the east side that we really couldn't -- we couldn't
22 tell much. There may have been fingers of live wood on
23 the east side, but it was consumed by fire at the time of
24 our inspection. So what was left that we could see was
25 on the northwest and southeast.

26 Q. All right. Exhibit Number 531. What are we

1 looking at in this picture?

2 A. When they collected this tree, they took the
3 limbs off and took sections of the trunk to a storage
4 facility in Magalia. This is the base of the tree
5 looking upward from the ground essentially. They
6 excavated soil down a foot or so so they could cut this
7 first section of the trunk off. And if you notice this
8 (indicating) long straight flat area at the upper
9 right --

10 Q. Well, let's back off for just a second before we
11 get to that.

12 A. Okay.

13 Q. There's a compass on this tree; is that correct?

14 A. Yes.

15 Q. I'm guessing that that isn't a natural feature
16 on these trees?

17 A. Rarely. You're correct.

18 Q. Is there -- is that the east, west, and the
19 north arrow -- the north and south arrow, is that
20 something you superimposed on the tree?

21 A. I superimposed that on the tree. And you'll
22 notice that east and west are reversed relative to north.
23 If you're looking down on an aerial photograph, this is
24 backwards because you're looking up from the ground, and
25 west is the downhill side of the tree, east is the side
26 toward Concow Road.

1 Q. Why are those coordinates significant to you?

2 A. It's just for orientation. For me they were
3 important because we did some testing in several points
4 on this log. And certainly, I wanted to be able to
5 answer the question of what part of the log we were
6 testing.

7 Q. All right. Now that we've got that taken care
8 of, when I interrupted you, you were talking about the
9 flat side, northwest side of the log?

10 A. Yeah. Just for everyone's orientation, the
11 straight flat area -- if you can go back to 527, this
12 straight line here (indicating) is that same flat area.

13 Q. You're referring to the -- to the area below the
14 yellow arrow on the left side of the trunk as we're
15 looking at it in the photograph?

16 A. Yes. For the record, I think it makes it more
17 clear to say that.

18 Q. All right. What is the yellow arrow -- what is
19 the yellow arrow pointing at on this photograph?

20 A. The yellow arrow is -- well, first, I should say
21 that this -- this (indicating) bulge here is where a root
22 came up to meet the trunk.

23 And I'm going to see if I can make this work.
24 Did that zoom?

25 Q. No. You've got to hit the little --

26 A. I've got to do something. Oh, now can I -- can

1 I slide this with my finger?

2 Q. Yep.

3 A. Okay.

4 Q. Pull it down there.

5 A. Okay. So you can see this discolored area up
6 here (indicating) where the bark is detached. If you
7 look at the trunk above this, it was all dead. This is
8 just a discoloration that is associated with that dead
9 issue. I put that in just to call attention to it for my
10 own orientation. And I wanted to have -- well, it's
11 just -- it's really for orientation to be able to point
12 this out as associated with the dead area of above.

13 This -- in the original this is a little more
14 well defined. It's kind of blurry here. And if you
15 look -- if you count rings in here, you'll see that
16 there's a number of years that the tree continued to grow
17 in here and it stopped growing up again here. Again, it
18 doesn't show on this photograph.

19 The other thing that is notable about this is
20 the center of the trunk. What we called the pith,
21 p-i-t-h, is right here (indicating) to the left of the
22 north arrow. And it's relatively the same distance from
23 the edge of the tree in all directions. And that is
24 important because in a pine tree if the tree leans or one
25 side of it is under compression load, it will grow
26 thicker rings on that side.

1 So if the tree leans downhill to the west, we'd
2 have thicker rings out here. The edge of the tree would
3 be out here and this pith would be displaced to the east.

4 So what this indicates is that over the 83 or
5 85 years that this tree was alive, that it was growing
6 straight vertically the whole time. It didn't lean.

7 Q. All right. Moving on to 532, tell us what we're
8 looking at in Exhibit 532.

9 A. This is really just for orientation again.
10 There is the log of tree 58 on the ground with north,
11 south, east, and west superimposed on it. I put these on
12 and Photoshopped just to illustrate that.

13 I don't think there's anything I can say about
14 this that I haven't said already, but it's just another
15 view of this log.

16 Q. Now, we talked extensively earlier on about the
17 advanced testing that is available when you're doing tree
18 assessments or forensics for tree failure.

19 Did you use any of those advanced tests on
20 tree 58?

21 A. Yes. We used the Resistograph, the resistance
22 drill.

23 Q. Explain to us briefly -- or not briefly.
24 Explain to us exactly what is a Resistograph, how it
25 works, and how it assists you in assessing a tree.

26 A. It contains a needle that's 500 millimeters

1 long; half a millimeter. About a -- the meter is a
2 little over a yard. So this is 20 inches and some
3 distance.

4 This needle is flattened at the end into a
5 little spade bit three millimeters wide. It rotates at
6 about 8 to 10,000 rpm. And a second motor drives it
7 forward into the tree. Every time it encounters more
8 resistance -- and that could be from wood that is formed
9 in the year each year or less resistance from wood that
10 is formed in the spring of each year or it encounters a
11 knot or it encounters decay or hollow, a complete hollow,
12 or earlier stage decay, decay that hadn't -- is consuming
13 portions of the wood where there may be fingers of decay
14 but there isn't extensive decay in a particular area.

15 We can interpret what we -- we can infer what we
16 think are those conditions from what this trace looks
17 like. It's sent it back by Bluetooth to a computer and
18 to a Bluetooth-connected printer and creates a graph.

19 Q. So you performed the resistance testing on
20 three 58?

21 A. In four locations.

22 Q. How did you select those four locations?

23 A. If you go back to Exhibit 531, this white --
24 this is a white irrigation flag that is stuck in a hole
25 that they created. This little wire is about the same
26 diameter as the hole it's created. We drilled across

1 from one side to the other just about a foot above
2 because I wanted to get a sense of what we might find
3 going all the way across the tree just above ground
4 level.

5 We took a second profile. And you can see the
6 flag at the top of this root again about a foot up. We
7 took a second profile straight down through this dead
8 area where we knew we could see this degraded material.

9 We took a third one through one of these fingers
10 of live wood, this (indicating) wound wood. And that is
11 in a flat area to the right of the north arrow. This
12 would be on the north/northwest side of the tree. And
13 those were the fingers that were visible in Exhibit 528.
14 Specifically, that's the left finger, the smaller one
15 that you see in 528 on this side.

16 Going back to 531, the flag doesn't show it in
17 this photograph, but the profile was taken straight down
18 in this (indicating) direction to the right of the tip of
19 the non-comparable.

20 A fourth profile -- the reason we chose that
21 third profile in that location was that I wanted to
22 understand what that looked like as it passed through the
23 wound wood into the original tissues. If there were
24 anomalies, that might inform us about the tree.

25 The fourth one we took shows in the far upper
26 left -- and that's about three or four feet up, I

1 think -- and goes straight across the trunk again. And
2 that was just to understand if there was any defect that
3 might show up in that area.

4 If this trunk had been standing upright, we
5 probably would have taken and collected other profiles on
6 it, but it was heavy, it was hard to move, it was
7 delicate.

8 Cal Fire was very careful in moving it. Every
9 flake of bark was still on it. I don't know how they got
10 it in here. And I was afraid to brush up against it.

11 So we collected those four.

12 Q. All right. So you collected data from four
13 sites on the stump of tree 58?

14 A. Right.

15 Q. All right. Moving on to Exhibit 533, it looks
16 like some sort of graph.

17 A. So 533 is the graph from that first profile.
18 And they're labeled from the right -- left to right "358
19 profile one." And then it spells it out over here
20 (indicating). The date of this was December 19th, 2018,
21 east side at one foot. And that was where you saw the
22 flag in the previous exhibit.

23 Each one of these points is an annual ring as
24 early wood in the spring that is softer and late wood in
25 the fall and some of that is harder.

26 And then it gets to the middle of tree. And we

1 may not have gone right through the middle. It's a
2 little hard to distinguish what is going on here. I
3 don't think we hit it in the middle. We may have
4 wandered off a little bit. And then this is where we
5 came out the other side, but this is a profile of sound
6 wood.

7 Q. What do you mean "sound wood"?

8 A. Wood that doesn't have decay, wood that is --
9 although it was burned on the outside, it was not decayed
10 anywhere. What was there was an attached undecayed
11 sound, what you'd like to see on a trunk.

12 Now, there may have been some wood missing on
13 the east side, but we don't know. In fact, even the
14 estimate of our measurement of the trunk diameter of this
15 tree is an estimate because some amount of it has burned
16 on the east side. And we don't know how much.

17 Q. Okay. Exhibit 534.

18 A. Exhibit 534 is taken down through that root.
19 And there is what I interpret as some early stage decay
20 in this orange where suddenly you start to have these
21 wider gaps and you're getting some anomalous drops in
22 this graph. And then I interpret this (indicating) as a
23 more advanced decay in that area right up to 225
24 millimeters.

25 Q. So what does that mean?

26 A. Well, it means there was decay in that one area,

1 and yet we didn't find decay elsewhere. So it may not be
2 a significant decay.

3 Q. Okay.

4 A. And that was -- that was taken at the yellow
5 arrow about a foot -- about a foot above where you can
6 see that white flag up at the far left of the photograph.

7 Q. Exhibit 535.

8 A. Exhibit 535 is just a little short one. And
9 that comes through that finger of wood that we looked at
10 a minute ago on the northwest or north/northwest side of
11 the tree.

12 I'm not a trained dendrochronologist.

13 Dendrochronologists are specialists who can look at tree
14 rings. They can look at cores that are extracted from
15 trees. They can look at cross-sections of trees. They
16 can interpret when rings are -- there's such things as
17 false rings that occur if there are two growth events in
18 one year. They are missing rings sometimes if a tree
19 doesn't grow on one side of the tree for some reason for
20 one year.

21 Dendrochronologists are good at interpreting
22 those kinds of data from those rings. I'm not a trained
23 dendrochronologist, but it appears to me that this
24 event -- this little dip right here and this one here
25 correspond to the 2001 and 2008 fires. Now, the fire
26 burned through this area, but it burned to either side.

1 And the tree responds with extra growth in that area
2 where it is still alive. And so you may get more early
3 wood that is softer and you get these dips.

4 So I suspect these are evidence of those two
5 earlier fires. And that's really a matter of interest
6 rather than anything else. It was something that -- it
7 doesn't help me predict what is going to happen. It
8 doesn't help me be informed about whether this should
9 have been predicted. But what it does do is gives us
10 some more context to evidence about what happened in the
11 past on this tree.

12 Q. And again, this wood is still sound?

13 A. Yes.

14 Q. Even though it's dead and this is taken through
15 wound wood?

16 A. Well, this is live. Wound wood is live wood.
17 We were going through this finger of live wood that you
18 saw in Exhibit 527, this finger here (indicating) or the
19 next exhibit right here. So this was live. And so far
20 as I can tell this was never dead. The stuff on this
21 side was.

22 Now, it's possible that there was some -- that
23 this has grown up over dead tissue, but I don't think so.
24 And in any case, it looks to me like those are likely the
25 earlier fire events.

26 Q. And finally, 536.

1 A. Exhibit 536 went across the entire trunk just
2 as -- this is profile four -- just as profile one did in
3 that was three or four feet up on the trunk. And again,
4 this one looked to me to be sound from one side to the
5 other.

6 Q. Did you also run the Resistograph on tree 39?

7 A. I did.

8 Q. And we're not going to go through those charts
9 but based upon everything that you form in making a
10 conclusion about the condition of tree 39 prior to the
11 Camp B Fire.

12 A. Yes. I was a little surprised. From the
13 outside of tree 39 -- and that was, I believe,
14 Exhibits 522 and 523 -- there was that very narrow
15 external sign of dead tissue. And we drilled across the
16 trunk and found that to be narrow internally, not to go
17 very deep. So this is really a superficial defect. It
18 may not have contributed to the failure of this tree.

19 Q. Based upon everything what was your conclusion
20 as to tree 39?

21 A. You mean -- well, it had this defect that may
22 have been visible from the road in the intersection of
23 Concow and Rim Road. It would not likely have been
24 covered with bark. But the tree inspector may not have
25 had occasion to go up on the road. And it wouldn't have
26 been invisible from the -- from inside the utility right

1 away.

2 The failure may not have been associated with
3 this defect at all because I don't think it was as --
4 when we drilled through it, it wasn't as serious as it
5 looked like it might be from the outside. Often when
6 there's a small defect like that on the outside, we see
7 that it expands on the interior to create a significant
8 area of unsound compromised wood.

9 Q. What was your conclusion with regard to tree 58?

10 A. Tree 58 was clearly dead on the south, east, and
11 north sides, but I can't say that would have been
12 visible -- I can't say with any certainty that would have
13 been visible from the utility right of way. It's likely
14 there would have been some missing bark. Three quarters
15 of the tree was dead. But I don't know where that
16 missing bark -- I can't say that with certainty. Most
17 likely if there was missing bark, it would have been on
18 the east side visible from Concow Road again depending on
19 intervening foliage undergrowth.

20 Had a tree inspector had occasion to look at
21 that tree more closely tree 58, had they had a mallet
22 with them, had they tapped it with a mallet, that
23 certainly would have revealed the wood on three sides was
24 dead and the bark was detached. And that's in the event
25 that the bark was still there. But they would have to
26 have reason to walk up to that tree from the center of

1 the right of way and look at it as opposed to the other
2 trees they're looking at that day.

3 Having done that, then they could call ideally
4 for an advanced inspection. I don't think that is in the
5 protocol for continuing now, but ideally an advanced
6 inspection could have been called for. I don't know that
7 an advanced inspection would have revealed more than
8 mostly sound dead wood. Still that's a tree that is dead
9 on three sides near a conductor. And I can't say more
10 than that about it, I don't think.

11 Q. Do you have an opinion as to why tree 58 failed
12 on the morning of November 8th?

13 A. One of the disappointments in what we did
14 because we put a lot of time in collecting all of that
15 information that's in the charts and the height diameter
16 ratio and live crown ratio and whether there were defects
17 that could quickly be detected, that might reasonably be
18 expected as contributors under normally expected serious
19 storm conditions. And that's one of the things we look
20 at. Is this defect likely to contribute to a failure
21 under the kind of conditions we can expect one storm
22 every five or eight years? Pretty extreme storm.

23 There was one indicator -- I think it was height
24 diameter -- on trees that failed that actually did
25 coincide. Nothing else coincided. None of the other
26 things that should have been predictors predicted.

1 And that is either because this was such a small
2 sample -- this is only 83 trees. If we looked at a
3 thousand, maybe we'd see a pattern. Or it may be that
4 the wind was -- the wind event was just so extreme that
5 it overwhelmed these indicators. I don't know. But we
6 weren't able to draw any conclusions about what we
7 normally would consider predictors or indicators having
8 potential to fail.

9 So I can't really say why that tree failed
10 because -- now, it did have a high height diameter ratio.
11 It did have a low -- relatively low live crown ratio.
12 Well, those are indicators. And it was dead on three
13 sides, but we don't know if that dead condition on three
14 sides was highly visible, a little bit visible, or not
15 visible at all.

16 It is likely that the height diameter ratio and
17 the live crown ratio contributed to it, but some of the
18 other trees -- there is another one in there that has
19 even worse ratios and it didn't fail. So these trees
20 weren't playing by the rules. And that may be because of
21 exception ally high winds or it may be because of our
22 small sample size.

23 MR. NOEL: I have no further questions.

24 Is there any questions from the jurors?

25 [Conferring off the record.]

26 BY MR. NOEL:

1 Q. Okay. There are some questions from the jurors
2 themselves that I will -- some of them I will ask you.

3 The first one is "Did you examine and consult on
4 the Camp A Fire?"

5 And I can answer that. No. He doesn't even
6 know about Camp A Fire. So we're not going to go into
7 that.

8 The second one though is "Would you say that
9 these two events --"

10 Are you talking about Camp A and Camp B? All
11 right. So we'll skip that.

12 "Do you know when tree 58 was removed from the
13 area?"

14 A. No, I don't. It was between our last site visit
15 on, I think, November 17th and in December.

16 Q. 19th?

17 A. Yeah. It was between November 17th and
18 December 19th, but I don't know the date. I think it had
19 been at least a couple of weeks after the 19th. So it
20 was probably late November, but I don't have knowledge of
21 that.

22 Q. Let's see. It says "To what would you assign
23 the failure of tree 39?"

24 I'm guessing the question is what do you think
25 caused the failure of 39?

26 A. Well, I'm going to use the same answer I did

1 for 58 and that is I can't know because there was so many
2 trees that showed indicators, that showed they should
3 fail and didn't and so many that did fail that maybe
4 should have stood, that --

5 Sometimes there are clear indicators of why a
6 tree failed. You can find decayed roots. You can find a
7 decayed section of the trunk. You can find what is
8 called bark inclusion or codominant stems and so half the
9 tree peels off.

10 But under extreme events any tree can fail even
11 if it's not got any predisposing factors. And these
12 trees did have some predisposing factors. But other
13 trees that didn't seem to have predisposing factors
14 failed. So I don't have an answer with any precision why
15 either of these trees failed. A lot of wind and extreme
16 conditions.

17 Q. Then we'll skip one question that ties right
18 into the next question which is "Does heavy winds of 30
19 to 50 miles per hour have any significant causes on these
20 wounded areas potentially creating these failures?"

21 A. It can. In a modest wind a 30 mile-an-hour wind
22 is fairly modest. A 50 mile-an-hour wind is pretty
23 common. I would -- I don't know what the winds were. I
24 have not seen the wind data for that day, but I would
25 expect it was above 50 miles an hour. The -- up to 30 or
26 40, even 50 you'd expect trees to behave more in line

1 with their -- their failure predictors, their defects.

2 I don't know. Can you read that back again just
3 to see --

4 Q. Do heavy winds 30 to 50 miles an hour have any
5 significance?

6 A. They do. One other thing that can happen with
7 heavy winds is they can fracture a tree, but it may not
8 fail and it may fail six months later in a ten
9 mile-an-hour wind. I don't think that is relevant in
10 this case.

11 But, yes, lighter winds can certainly have an
12 affect. And if there is a really significant defect,
13 they might topple a tree. Tree 30 I noted was heavily
14 decayed and fell down hill. I would expect tree 30 to
15 fall down in a relatively light wind.

16 Q. Did you discover any evidence of possible
17 lightening strikes on tree 39 or tree 58 in your
18 investigation?

19 A. No, we didn't. And the lightening strike might
20 be where there's a whole strip of necrotic tissue from
21 the top down. It's where the current follows the trunk
22 from top to bottom. But we didn't see any evidence of
23 that on the live portions of the crown on either tree.

24 MR. NOEL: Anything further from any of the
25 jurors?

26 That's all we have for you, Mr. McNeil. We

1 appreciate you coming down.

2 THE WITNESS: All right.

3 MR. NOEL: Now, the foreperson is going to have
4 an admonishment for you.

5 THE WITNESS: I will keep my mouth shut.

6 MR. NOEL: And hopefully, I have all the
7 exhibits.

8 THE WITNESS: Yeah. I didn't take any.

9 MR. NOEL: We have had someone try and escape
10 with the exhibits. So we had to chase him down.

11 THE WITNESS: Well, because I was inadvertently
12 reshuffling those at the end, I think that's a good idea.

13 GRAND JURY FOREPERSON: Mr. McNeil, I'd like to
14 remind you that you are admonished not to discuss or
15 disclose at any time outside of this jury room the
16 questions that have been asked of you or your answers
17 until authorized by this grand jury or the Court. A
18 violation of these instructions on your part may be the
19 basis for a charge against you of contempt of court.
20 This does not preclude you from discussing your legal
21 rights your own attorney.

22 Mr. McNeil, what I have just said is a warning
23 not to discuss this case with anyone except the Court,
24 your lawyer, or the district attorney.

25 Do you have any questions?

26 THE WITNESS: No, I don't. I saw the picture of

1 all those deputies with shotguns at the district
2 attorney's office. They looked worse than Bonnie and
3 Clyde so . . .

4 GRAND JURY FOREPERSON: Okay. Thank you for
5 your time today. We appreciate it.

6 THE WITNESS: Thank you.

7
8 [DISCUSSION OMITTED.]

9
10 [Matter adjourned at 4:02 p.m.]

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COURT REPORTER'S CERTIFICATE

This is to certify that I, Lisa McDermid Welch, a Certified Shorthand Reporter of the State of California was present at the time and place the foregoing grand jury proceedings were had and taken in the within matter; and that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings; and afterwards caused my said shorthand writing to be transcribed into typewriting; and the foregoing pages, beginning at the top of Page 1 to and including Page 74 hereof, constitute a full, true, accurate, and complete record of the proceedings.

DATED: This 6th day of June, 2022.

Lisa McDermid Welch

LISA MCDERMID WELCH, CSR, RPR
CSR LICENSE NO. 10928

1 IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA
2 IN AND FOR THE COUNTY OF BUTTE
3
4

5 IN RE:) **REDACTED**
6)
7 CONFIDENTIAL GRAND JURY)
8 PROCEEDINGS) BCSC-2019-GJ-01
9)
10 _____)
11)

12 **REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS**

13 **TUESDAY, SEPTEMBER 10, 2019**

14 **VOLUME 18**

15 **OROVILLE, BUTTE COUNTY, CALIFORNIA**

16 **LISA MCDERMID WELCH, CSR 10928, OFFICIAL COURT REPORTER**
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5 Oroville, California 95965

6
7 FOR THE STATE OF CALIFORNIA DEPARTMENT OF JUSTICE
8 OFFICE OF THE ATTORNEY GENERAL:

9 [No appearances]

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I N D E X

WITNESSES:

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PETER MARTIN

Examination by Mr. Noel

06

(WITNESS #23)

Examination by Mr. Noel

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19 --oOo--

1 OROVILLE, BUTTE COUNTY, CALIFORNIA

2 SEPTEMBER 10, 2019; 8:47 a.m.

3 (Confidential Grand Jury Hearing Proceedings)

4
5 [PROCEEDINGS OMITTED.]

6
7 [Recess taken from
8 8:49 until 9:00 a.m.]

9
10 [ROLLCALL OMITTED.]

11
12 [DISCUSSION OMITTED.]

13
14 MR. NOEL: Are we ready to go with witnesses?
15 Peter Martin.

16 [Witness enters the courtroom.]

17 GRAND JURY FOREPERSON: Mr. Martin, before you
18 are seated, would you please raise your right hand to be
19 sworn.

20 Mr. Martin, do you solemnly swear that the
21 evidence you shall give in this matter pending before the
22 grand jury shall be the truth, the whole truth, and
23 nothing but the truth so help you God?

24 THE WITNESS: Yes.

25 GRAND JURY FOREPERSON: Thank you. Have a seat,
26 please.

1 MR. NOEL: Before we start, the earlier one.

2 GRAND JURY FOREPERSON: There were two of them.

3 MR. NOEL: Yep.

4 Just for the record, the court clerk certified
5 some documents for us earlier. I've lodged those with
6 the foreperson. And the Sergeant at Arms just brought us
7 back in the -- I'm guessing the court clerk Ms. Dionne
8 realized that there was a wrong date on the
9 certification. It was dated September 9th instead of
10 September 10th. So she brought us corrected copies.

11 You swear the witness?

12 GRAND JURY FOREPERSON: Yes, I did.

13 **EXAMINATION**

14 BY MR. NOEL:

15 Q. Mr. Martin, can you state for the record your
16 full name spelling your last name.

17 A. Lewis Peter Martin, M-a-r-t-i-n.

18 Q. By whom are you employed, Mr. Martin?

19 A. PG&E.

20 Q. In what capacity?

21 A. Senior materials -- senior advising materials
22 engineer.

23 Q. What is a senior advising materials engineer?

24 A. My background is in materials engineering and my
25 title is senior advising, a level between senior and
26 principal engineer.

1 Q. What's the difference between the two?

2 A. Seniority.

3 Q. Okay. What training or education or experience
4 do you have that qualifies you as a materials engineer?

5 A. I have a bachelor's and a master's and a Ph.D.
6 in material science and engineering.

7 Q. Walk us through that.

8 A. So four years of undergrad, approximately four
9 years of graduate school working on the master's, and
10 then another three years to complete the Ph.D. It
11 involved a lot of course work. The master's and the
12 Ph.D. both involved writing dissertations.

13 Q. What exactly is -- does it mean to be a
14 materials engineer?

15 A. So it means that you have experience and
16 background studying and correlating how materials behave
17 based on what they're made from and how they're made, all
18 classes of materials including metals.

19 Q. That was going to be my next question is what
20 kind of materials are we talking about here?

21 A. My background is pretty general. I have quite a
22 bit of experience in ceramics and in polymers and in
23 metals. Metals are typically studied quite extensively
24 in the curriculum because they're somewhat of a model
25 system. But I've worked in -- across a bunch of
26 different fields.

1 Q. When did you get your Ph.D. in materials
2 engineering?

3 A. 1996.

4 Q. How long have you been with PG&E?

5 A. I've been with PG&E since June of 2016.

6 Q. What did you do before you came to work for
7 PG&E?

8 A. I was a product developer engineer at a company
9 called Pentair in Menlo Park where we developed heating
10 cables to prevent pipes from freezing.

11 Q. How long did you do that?

12 A. I did that for eight years.

13 Q. How about before that?

14 A. Before that I was an engineer at Lawrence
15 Livermore National Lab.

16 Q. What is Lawrence Livermore?

17 A. Lawrence Livermore is a national laboratory that
18 is -- that is owned by the Department of Energy that is
19 largely dedicated to nuclear weapons work, but I worked
20 predominantly on automotive gas emissions sensors.

21 Q. How long were you at Lawrence Livermore?

22 A. Nine years.

23 Q. Does that cover your period from your Ph.D.
24 until you get to PG&E?

25 A. No. There was one other little step. For three
26 years I worked for a small business in Washington D.C.

1 Or excuse me. Just outside Washington D.C.

2 Q. Doing engineering work?

3 A. Doing materials engineer work, yes.

4 Q. So what exactly do you do for PG&E as a senior
5 advising materials engineer?

6 A. I spend a significant fraction of my time
7 performing failure analyses and condition assessments on
8 assets that have been returned from the field. So if
9 things break, they send them to us. And somebody like me
10 or me will look at them and inspect it and do an analysis
11 and figure out how it broke and why.

12 Sometimes it's not things that broke. Sometimes
13 it's things that have been -- we call it
14 opportunistically taken out of the field. For instance,
15 if they've gone up on a pole to change something, they
16 might grab everything that is on the pole and send it to
17 us. And we will inspect it all and document the
18 condition that it's in.

19 Q. Do you have an office at PG&E?

20 A. I have a cubicle.

21 Q. A cubicle. Where is that cubicle?

22 A. It's in San Ramon, 3400 Crow Canyon Road.

23 Q. Do you have a special building that you're part
24 of or a special division that you're part of?

25 A. Division. The organization that I'm part of is
26 called Applied Technology Services.

1 Q. ATS?

2 A. ATS. So that's about 120 people or so. Within
3 ATS there's a group called materials and bathymetry that
4 is currently eight people or so. Eight or nine people.
5 And I'm in that group.

6 Q. All right. The group was called materials and
7 what?

8 A. Bathymetry. It's a weird mixture of functional
9 areas. And I'm not sure exactly how that came about.
10 But the bathymetric guys are the guys that go out and
11 drive boats around on the lakes and rivers and do
12 underwater sonar surveys to make sure that where our
13 assets cross a body of water they haven't been exposed by
14 the currents and things like that.

15 Q. I'm sure that madam court reporter has
16 bathymetry in her glossary, but can you spell it for me
17 for my notes.

18 A. Sure. B-a-t-h-y-m-e-t-r-y.

19 Q. So tell us about your job at ATS and what you do
20 daily.

21 A. I serve to a certain extent as a point of
22 contact for some of these assets that are being returned
23 in from the field. So I do a bit of logistical work to
24 track inventory of what we have on site. That's not very
25 technical, but it's important. It's something like but
26 less rigid than maintaining a chain of custody. Right?

1 But most of the technical work that I do is failure
2 analysis like I've already described.

3 Q. What is failure analysis?

4 A. So failure analysis is when you take a component
5 that has failed and you basically do something that is a
6 little bit like forensics -- it's part of forensics;
7 right? -- to try to determine what happened. Why did it
8 break? Was there something wrong with it? Was it just
9 old? Did somebody crash into it or did a tree fall on
10 it? What happened?

11 Q. Do you have to have failure before you do a
12 failure analysis?

13 A. Well, by definition you have to have a failure,
14 but we can also do and do condition assessment.

15 Q. Okay. What is the difference between condition
16 assessment and failure analysis?

17 A. So in a failure analysis you are trying to
18 determine why it broke and in a condition assessment you
19 are trying to figure out what condition it's in now. It
20 hasn't failed. They have taken it out of the field
21 either because it didn't look right or something else
22 broke and they were just grabbing everything that was on
23 the tower for a variety of reasons.

24 Sometimes it's a construction project and maybe
25 they're replacing one thing and they just grab the other
26 things. And, for example, you want to get the handle on

1 "Hey, this thing is somewhat old or very old" depending.
2 And we want to know how strong it still is and is it
3 still functioning properly.

4 Q. In the spring of 2018 were you asked to examine,
5 evaluate, and test some hanger plates that came off of a
6 transmission line?

7 A. Yes.

8 Q. All right. You should have in front of you
9 Exhibit 382. Do you see Exhibit 382 sitting there?

10 A. Yes.

11 Q. Do you recognize Exhibit 382?

12 A. Yes. This is a report that I wrote.

13 Q. Tell us about 382.

14 A. This is a report on six hanger plates that were
15 delivered to me by David Hernandez on April 13th of 2018.
16 And the request was to evaluate the quality of the
17 material and whether it was -- they were the right
18 material and if anything unusual happened to them or if
19 the observed wear was normal.

20 Q. All right. You were talking earlier about
21 basically work flow and how things come in. You talked
22 about that the field sends things in to you.

23 Is this an example of that?

24 A. Yes.

25 Q. When things like these hanger plates come in to
26 you, are you familiar with those items before you get

1 them?

2 A. Not always.

3 Q. In this case the hanger plates -- were you
4 familiar with those types of hanger plates before
5 Mr. Hernandez brought you these six for testing?

6 A. I was not.

7 Q. What do you do when you're not familiar with the
8 parts that you're asked to analyze or test?

9 A. So my first step is generally to contact one of
10 the subject matter experts, one of the field experts.
11 Actually, that would be my second step. The first thing
12 is when the person is delivering it to me, I basically
13 acquire as much information from them as I can. What is
14 this thing? How does it work? Where did it come from?

15 And then I'll contact one of the subject matter
16 experts and say "Explain it to me again." The same
17 things. What are these? How do they work? Where do
18 they come from? Do they break a lot? You know. "Tell
19 me anything you can about it."

20 Then I'll typically go to the internal
21 documentation if I can find any that is relevant. And
22 usually that pretty much is good enough. I can't think
23 of a scenario where it wasn't.

24 Q. What type of internal documentation would you go
25 to?

26 A. Work procedures, construction manual,

1 construction standards. We have -- we have documents --
2 I'm not exactly sure how to categorize them, but they say
3 what are approved components for a certain application.
4 They might not be -- you know, they would be current
5 typically, but sometimes I can find older versions that
6 will sort of backdate a little bit. It gives me a
7 general feel for what the part is and how it's used.

8 Q. Okay. So basically you get to know the parts?

9 A. Yeah.

10 Q. Going to the front page of 382 there's some
11 information on there; event date, CAP number, nearest
12 city, line and voltage, structure number.

13 A. Uh-huh.

14 Q. Is that information that you were given by David
15 Hernandez?

16 A. Yes. And it's documented in Appendix A.

17 Q. Okay. All right. And then we see
18 Mr. Hernandez's name on there. There's also the name
19 Jeff Lockwood, Reliability Specialist.

20 A. Uh-huh.

21 Q. Who is Jeff Lockwood?

22 A. Well, Jeff Lockwood is the reliability
23 specialist. And what that means is that he's -- he's a
24 person who goes to sites where something fails or where
25 there are questions and provides guidance to the field
26 crews when they need it as to whether a particular thing

1 is unusual and warrants further analysis.

2 Q. And then your signature is on the front page?

3 A. Correct.

4 Q. And who is Sireesha Mopati?

5 A. Sireesha Mopati is a peer of mine, and she
6 provided the review for this document.

7 Q. And that's her signature on there?

8 A. Uh-huh.

9 Q. All right. Let's start walking through the
10 report itself. It starts off with an executive summary?

11 A. Correct.

12 Q. Why an executive summary?

13 A. The reason that we perform or provide these
14 services to our internal clients is to get them the
15 information that they need. There's a lot of information
16 in here that is very technical and really honestly is
17 mostly meant for me in case of a situation like this.
18 But what's really important to the client is the stuff
19 that we put in the executive summary; a brief
20 encapsulation of what we did, what we found, and what are
21 our recommendations.

22 Q. So a concise summary of the findings?

23 A. Right. And bearing in mind that the field
24 crews, you know, they don't want to read all of this
25 stuff.

26 Q. And they're not engineers; right?

1 A. They just need the answer. They just need the
2 answer.

3 Q. All right. So as to recommendations, what is
4 the recommendation section underneath there? Explain
5 that to us.

6 A. So one of the reasons that we perform an
7 assessment like this is to identify whether there are any
8 reasonable follow-up actions that should be taken. And
9 if we perceive that there is within reason some follow-up
10 action, then we recommend it. And that's what the
11 recommendations are.

12 Q. Okay. Secondary findings. Can you explain to
13 us what those are.

14 A. So as you walk through an assessment, it's very
15 technical and you're doing a lot of -- a lot of
16 inspection and gathering data. And sometimes you find
17 out things that are interesting and relevant. They're
18 not directly relevant to the condition of interest
19 potentially and they're not necessarily directly relevant
20 to the recommendation, but there are things that you feel
21 are worth documenting. And so we consider those to be
22 secondary findings.

23 Q. Okay. What is ASTM?

24 A. ASTM is the American Society for Testing
25 Materials. They generate standards for various types of
26 tests and for various materials. So a thing like steel

1 might have a standard associated to it. Excuse me. Let
2 me rephrase that. A type of steel might have a certain
3 strength and a certain composition. And if they want to
4 market that steel as conforming to a certain standard,
5 then it has to meet the strength and composition
6 requirements that are laid out in that standard.

7 And the reason that that's done is to make it
8 easier for customers to understand what they're getting.
9 Rather than saying "Hey, here's a piece of steel," you
10 can market it as "Hey, here's a piece of A36." And they
11 know that that refers to standard 36 and they know what
12 you're selling them.

13 Q. All right. And then we have a list of
14 appendices and attachments?

15 A. Yes.

16 Q. We'll get to that.

17 The introductions. Specifically the first
18 paragraph of section 3.0, the introduction, where did you
19 get the information in that paragraph?

20 A. So David told me when he delivered the parts
21 that they were from the Parkway-Moraga Line and the
22 structure number and that he was delivering them to me
23 because substantial wear was observed.

24 I believe that the removal dates were either
25 reported to me at the time of delivery by David or were
26 identified later when I was asking -- when I was asking

1 him.

2 So each of these lines has three plates
3 associated with it on that structure; the Bahia-Moraga
4 and the Parkway-Moraga. He handed the six plates to me.
5 And my recollection was that he told me they were from
6 Parkway-Moraga.

7 So when I got farther into the process of trying
8 to figure out why I had six plates, I thought maybe there
9 were two plates on each phase. And so I had to do a
10 little digging. And I found, oh, I got three from
11 Parkway and three from Bahia. And somewhere in that
12 process I identified the removal dates.

13 Q. Okay.

14 A. And the CAP number was on the CTIS.

15 Q. And what is the CAP number?

16 A. CAP stands for Corrective Action Program. And
17 that would -- a number -- a CAP item is initiated for
18 every type of repair and incident that we have and each
19 of those items gets a number associated with it. And so
20 you can think of this as a tracking number for
21 documentation that somebody went out to that structure
22 and did something.

23 Q. And then there's a Footnote 1 down on the
24 bottom.

25 A. So as part of the investigation probably
26 occurring when I was trying to figure out what the span

1 lengths were on either side of this structure because the
2 span length affects how heavy the conductor is and so
3 that affects the load on the suspension plate.

4 I identified that, you know, this line had
5 changed its name and the structure number at some point
6 in the past.

7 Q. Okay. And where did you get the information
8 identifying this as 48/260 of the Vaca-Dixon-Moraga Line?

9 A. Drawing 22857, Rev. 20.

10 Q. Okay. And what does that refer to?

11 A. That is a PG&E technical drawing that shows the
12 line. And it's probably -- probably includes a table of
13 the different span lengths. So whenever I document that
14 a line has changed names, I like to include that
15 documentation in the report just for completeness.

16 Q. Now, going through the rest of the report, walk
17 us through -- and then we'll go back and go through some
18 of this stuff more in-depth. Walk us through how you
19 tested and analyzed these six plates and why.

20 A. So this is a fairly standard failure analysis
21 procedure. It can be used also for condition assessment,
22 which is what this really is. And the steps are laid out
23 in Section 4.0, visual inspection, metallography, optical
24 and scanning electron microscopy, mechanical testing, and
25 chemistry. So those are the steps.

26 Q. So what is metallography?

1 A. The metallography is where we cut out a little
2 piece of the metal and we mount it in something that
3 looks like a small hockey puck. And we polish the
4 surface until it's so smooth that it shines like a
5 mirror. And then we'll etch it with a little bit of
6 acid. And that reveals the structure at sort of a
7 microscopic level of the metal. And the structure is
8 very characteristic of the type of metal and how it was
9 manufactured to a lesser condition of the metal.

10 Q. Okay.

11 A. The most important thing that we do is visual
12 inspection. I mean, for all the technical training that
13 we have, you know, our main tools are often a camera and
14 a ruler. So we start with a visual inspection and just
15 start out with the simplest thing; identifying what these
16 parts are. How wide are they? How thick are they? How
17 many holes do they have? How big are the holes?

18 And then we document that the one hole that was
19 elongated where the hooks were actually -- where the
20 insulators were actually hung from, document how bad is
21 that elongated piece and how much material was left
22 below. So all of that was part of the visual inspection.

23 Q. Okay.

24 A. Then we moved on to the metallography which
25 showed that the structure of the material at the
26 microscopic level was proper for the type of material

1 that we thought that these plates should be made from
2 which would be something like an A7 steel or A36 steel.
3 A7 is the -- it refers to the ASTM standard that was in
4 place for this type of steel at the time we think these
5 plates were manufactured and installed. And A36 is --
6 which is in the '40s. And A36 is the current equivalent
7 standard.

8 Q. Has there been any changes?

9 A. The standard was tightened up a little bit.
10 There have been changes in all the standards over this
11 period, some small little things that clarify
12 inconsistencies, maybe how a manufacturer has to test the
13 materials to establish that he meets the requirements.

14 For what's relevant here there was some really
15 subtle changes, very minor in the strength of the
16 material. Or less minor but still not too significant in
17 the composition of the material. I would have to look at
18 the --

19 Q. All right. So after you do the metallography,
20 then you're doing --

21 A. So then we really got into the -- it's another
22 aspect of the metallography. But we took those same sort
23 of cross-sections that were polished and we did this
24 cross-section right at the area where the part was worn.

25 So that would be -- if you see where it says
26 "plates five and six" in that lower left-hand corner, you

1 can see that hole that used to be round kind of looks
2 like a keyhole now. That part where it looks like a
3 keyhole below that or kind of toward the corner, we
4 sectioned that out and looked at what was going on right
5 at the area where it was wearing at a microscopic level.

6 Q. And for the record, up on the big board we have
7 section one which we'll be getting to in a minute from
8 the report displayed.

9 All right. Then it says you did mechanical
10 testing, Rockwell B and Tensile Testing.

11 A. Correct.

12 Q. Tell us about those.

13 A. So for the mechanical testing we contracted an
14 external lab in Hayward called Anamet to cut pieces out
15 from the area between the holes from some of these plates
16 and basically put them in a machine and pull on them
17 until they break to see how strong the material is.
18 That's what tensile testing is.

19 Q. What about Rockwell B?

20 A. Rockwell B is a hardness test. There really
21 isn't a standard value for that. But if you do enough
22 work around steel, you start to get a feel for the range
23 where steel would be. So it just was -- in a sense I
24 more did it for completeness just to have it. I don't
25 rely particularly on it for any of the conclusions in the
26 report.

1 Q. Okay. And finally, chemistry, OES, and LECO.

2 A. Right.

3 Q. What are those tests?

4 A. So optical emission spectrometry is a technique
5 where essentially they -- it's a little bit simplified,
6 but they essentially -- they drive an electric spark to
7 the surface of the material. It creates a little plasma
8 of the material itself. And they basically take a light
9 from that plasma and separate it into its component
10 colors for want of a better word. And those colors will
11 give a characteristic composition so you can tell what
12 all the relevant chemicals are in the part and how much
13 there are by doing that except for carbon and sulfur. It
14 doesn't work for carbon and sulfur. So we need this
15 other technique that is called LECO.

16 Q. And what is LECO?

17 A. LECO is a combustion technique where they
18 actually -- it's a different technique, and they do it in
19 a different way to get comparable numbers for carbon and
20 sulfate. So that's where all these numbers came from.
21 These are weight percents.

22 So, you know, they were telling you that plate
23 two had 22 weight percent of carbon, which is typical for
24 plain carbon steel.

25 Q. Let's skip ahead to some of the pictures that we
26 have up on the board in front of us from page 9 of your

1 report, Figure 1. Tell us what we're looking at here.

2 A. Those are the six plates that I received from
3 David Hernandez just laid out to display that's their
4 as-received condition.

5 Q. And feel free -- you can get up and use the
6 board -- this is all touch screen -- as much as you want.

7 So in each one of these there's three rows of
8 plates. Each one is two separate plates. Correct?

9 A. Correct.

10 Q. Is there some reason they're stacked the way
11 they are or paired up the way they are?

12 A. Not really. Again, when David handed them to
13 me, I either misspoke or I misunderstood. I assumed they
14 were all from the same line. They were commingled. So I
15 just -- again, this is really just as-received condition
16 documentation just to show that this is what I received
17 at the lab. We haven't even started doing anything yet
18 with this.

19 Q. All right. And is this keyholing, this wear
20 pattern on the bottom of each hole, is that what was
21 concerning?

22 A. Yes.

23 Q. All right. On to Figure 2. Explain to us what
24 we're looking at here.

25 A. Again, I like to be complete with the report.
26 So I find that it's often valuable to document where the

1 components came from. So I've shown what we received.
2 Now we're documenting where they came from.

3 So the top is a map that shows the location of
4 the tower where the components were taken, which I
5 believe is 20/115. And then the tower on the other side
6 of the highway, which was a relatively long span. I
7 think a little over 2,000 feet. And it's showing the
8 location as it's crossing Highway 24 kind of near the
9 Caldecott Tunnel.

10 The bottom image is not showing very well, but
11 it actually shows the structure itself. This is taken
12 from a flyover, a high definition video that was taken
13 from a flyover that was available in the Geographic
14 Information System that we have. We call it GIS.

15 Q. Okay. So there's a database that has high
16 resolution video of transmission towers?

17 A. There is. It's a little bit hit and miss, but
18 you can often find pictures of the structure and/or
19 flyover video.

20 Q. Okay. And high resolution pictures of the
21 structure?

22 A. They say they're high resolution. I don't know
23 how high res they actually are.

24 Q. All right. Now, you mentioned it earlier and
25 you kind of -- you were talking about both the map and
26 the picture of the span. And the length of that span is

1 germane to your analysis?

2 A. That's correct.

3 Q. How so?

4 A. The rate of wear is dependent upon the load
5 that's on the contact point. And the load basically
6 is -- it's related to how much stuff the part is holding
7 up. So if you have a very long span and it's 2,000 feet
8 on one side and about a thousand feet on the other,
9 that's more stuff that it's holding up than if its spans
10 were very short.

11 So the weight is heavier. So the force at the
12 contact point where the wear is occurring is higher so
13 you get more wear. That's why it's relevant.

14 Q. All right.

15 GRAND JURY FOREPERSON: Mr. Noel, we have a
16 juror that needs to have five minutes.

17 MR. NOEL: Absolutely. Let's take a quick
18 break.

19 GRAND JURY FOREPERSON: Thank you.

20 MR. NOEL: Give him the separation admonition
21 real quick.

22 GRAND JURY FOREPERSON: Yes.

23 Mr. Martin, you are admonished not to discuss or
24 disclose at any time outside of this jury room the
25 questions that have been asked of you or your answers
26 until authorized by the grand jury or the Court. A

1 violation of these instructions on your part may be the
2 basis for a charge against you of contempt of court.
3 This does not preclude you from discussing your legal
4 rights with your own attorney.

5 Mr. Martin, what I have just said is a warning
6 not to discuss this case with anyone except the Court,
7 your lawyer, or the district attorney.

8 Do you have any questions?

9 THE WITNESS: No.

10 GRAND JURY FOREPERSON: Okay. Thank you.

11 THE WITNESS: Thank you.

12 MR. NOEL: Let's take a quick break with the
13 judge.

14
15 [Recess taken at 10:05 a.m.]

16
17 [PROCEEDINGS OMITTED.]

18
19 [Recess taken from
20 10:07 until 10:10 a.m.]

21
22 GRAND JURY FOREPERSON: All members of the grand
23 jury have returned and we are ready to proceed.

24 **EXAMINATION CONTINUED**

25 BY MR. NOEL:

26 Q. All right. One final thing real quick here. We

1 are looking at Table 1, which is page 11 of your report,
2 background data harvested from ET-GIS. What is ET-GIS?

3 A. So I referenced earlier that we have a
4 Geographical Information System. ET is indicating the
5 electrical transmission portion of that system. It's
6 kind of like a web-based, map-based system where you can
7 go in and find a location or a transmission line or a
8 structure, whatever you're looking for, and try to pull
9 as much information on that location or structure as you
10 can.

11 And just for completeness, I tried to tabulate
12 all the information that I can find just so if it ever
13 came to something in the future, somebody would know sort
14 of what I was talking about in terms of the location, the
15 assets.

16 Potentially -- although I don't think any of
17 this was super relevant to what we're talking about but
18 potentially what information I was working with when I
19 discussed environmental affects or, you know, stuff like
20 that.

21 Q. Okay. Down towards the bottom there is a
22 category section entitled "Insulator."

23 A. Yes.

24 Q. Do you see that?

25 A. Yes.

26 Q. Where did you get the information on the

1 insulators?

2 A. From ET-GIS.

3 Q. Okay. It says the insulator year installed
4 1946.

5 A. That's correct.

6 Q. That's what the GIS states?

7 A. Yeah.

8 Q. All right. So next up Figure 3, photographs.
9 This is page 12 in the report. Photographs of the holes.

10 A. Yes.

11 Q. Tell us how you analyzed the holes and what
12 results you got?

13 A. So just to be clear, Figure 3 is showing front
14 and back surfaces of plates that were somewhat
15 arbitrarily labeled 1, 2, and 3. As I said before, the
16 plates were commingled so I didn't really know which one
17 came from which phase of which line. But these three are
18 the more corroded ones, the more rusty-looking ones.

19 So from the visual inspection I'm documenting
20 that these things look like they have kind of keyholes
21 instead of a round hole where the insulator string should
22 hook from.

23 Can I ask a question to you?

24 Q. Sure.

25 A. Is it clear to everybody what this plate is?
26 This plate is at the tip of an arm on a tower, and a

1 string of insulators hang from these holes, one insulator
2 string from each plate. And at the bottom of that
3 insulator string is the conductor that's carrying all the
4 electricity. So this is the piece that holds the
5 conductor essentially in the air. So that's why we care
6 when they're worn.

7 Q. Yep.

8 A. So the first thing really with this was to
9 basically do what we would call a dimensional analysis.
10 So measuring the size of the hole maybe across the
11 direction, perpendicular to the direction where the wear
12 is. And that tells you kind of the original size of the
13 hole. And then you measure it in a direction where it
14 was worn and it tells you how far it wore.

15 So if it used to be three-quarters of an inch in
16 diameter and now it's .9 inches in diameter or at least
17 along that axis, you know you've gone fifty-thousandths
18 of an inch. One hundred fifty-thousandths of an inch.
19 Excuse me.

20 And I measured how thick those little ligaments
21 of material were. We call this area here [indicating] a
22 ligament. And now that's the amount of metal that is
23 holding up the insulator. So that was the first step.
24 And that's basically the information we got from -- I
25 don't know. That would be associated with this picture.

26 Q. Okay.

1 A. Do you want to move on?

2 Q. Yep. Go ahead.

3 A. So the next picture four is the same information
4 for the other three plates. You can see they're not as
5 rusty. I speculate in the report -- I think it's
6 reasonable speculation -- that the way that these plates
7 were probably grouped together like this, that the three
8 more rusty ones were probably on the downwind side. The
9 wind tends to come from the west. And the line was
10 running north/south with the Bahia-Moraga Line on the one
11 side and the Parkway-Moraga Line on the other side. So
12 one side and the other side would be east and west.

13 And you could imagine that when it gets wet from
14 rain or whatever, the upwind side dries off first. So
15 maybe, maybe the downwind side was more rusty, but that
16 was all a little bit of speculation. But this figure is
17 basically showing the same thing for the other plates.

18 So if we move on, this is showing -- Figure 4 is
19 mislabeled. It should be Figure 5 probably. Yeah, it
20 should be Figure 5.

21 So the figure on page 14 is just showing a
22 close-up view of one of the wear surfaces. Actually,
23 three of the wear surface plates 2, 4, and 6. And what
24 you're seeing is that the material -- the way that it's
25 worn it almost looks like the metal has squeezed out.
26 Does that make sense?

1 The hook would ride on this surface here
2 (indicating.) The hook was holding up the insulators.
3 And you can see this metal almost looks like it's
4 squeezed out; right? Which is characteristic of a
5 certain type of wear which is called adhesive wear which
6 is where the metal kind of has an upload on it and it
7 sort of sticks together a little bit. And then when the
8 part moves, it kind of drags a little bit of material
9 with it. And then if it moves back, it drags some
10 material in the other direction.

11 It's not really very important to anything, but
12 for completeness we like to identify what was the wear in
13 it. So it's adhesive wear.

14 Q. So is adhesive wear common in these types of
15 setups?

16 A. It would be common because the materials are
17 similar. If you had one material that was very much
18 harder or very much softer than the other, you might
19 get -- you might get a different type of wear. Or if
20 there were grit in there like sand or coercive products,
21 you might get an abrasive wear which is kind of what it
22 sounds like. It's basically just abrading the material.
23 So that's what that figure is showing.

24 Figure 6 shows basically we cut off those wear
25 surfaces from plates 2, 4, and 6 and now we're just
26 looking down on the wear surfaces just to show that

1 there's coercion there meaning that they're old. It took
2 a long time to wear this far.

3 They're corroding. They are wearing slowly
4 enough that corrosion forms on the surface. And you can
5 see the deformation, for example, in the bottom image
6 number four. You can see that it's bulged out right in
7 the middle. That's showing that squeezing out of metal
8 that I was showing you again supporting what we have.

9 Q. Are you talking about right here (indicating)?

10 A. Right here (indicating). For example, see how
11 it's bulged out. This is cut from a plate so it should
12 be flat. So right here (indicating). So that's again
13 just showing that we have adhesive wear.

14 Q. And these are the ligaments --

15 A. Yeah.

16 Q. -- we talked about earlier?

17 A. Yeah.

18 Q. From two, four, and six?

19 A. Yes.

20 So if you go back just real quick -- I don't
21 want to spend too much time. But if you go back to
22 Figure 4, the first Figure 4, what you're looking at is
23 basically we cut here and here (indicating), took a
24 piece, stood it up, and we're looking like that just down
25 on the wear surface.

26 Q. Okay.

1 A. So if you go back to Figure 6, that's what we're
2 looking at there. You can see the cut surfaces. Cut,
3 cut, cut.

4 Q. Yep.

5 A. And then in Figure 7 it's just showing where we
6 did the cuts to make the metallography.

7 Q. Okay. So here -- come on. Show us what you're
8 doing here (indicating).

9 A. So we looked at it in different ways. So first
10 of all, we cut some pieces up here to look at the base
11 material away from where the wear was. Just what was
12 this plate of steel like the way it was fabricated?
13 There's no issue there. There's no wear. There's no
14 nothing. Right?

15 Q. Okay.

16 A. Then we wanted to look at the wear surface, but
17 you have the wear surface like this; right? So how do
18 you look at that? Do you look at it this way or this way
19 or this way (indicating)? So these are the ways that we
20 looked at it.

21 In this piece we sectioned it this way in the
22 middle. And that is what this is trying to show. And we
23 looked in that [indicating] direction. So you consider
24 this. We spliced it this way and we looked at it this
25 way.

26 Q. Okay. So let me see if we can summarize that

1 for our court reporter who needs to take everything down.
2 We're talking about the two photographs on the top of
3 page 16, the photo on the left marked plate six, the
4 photo on the right marked plate two.

5 We're initially talking about plate two;
6 correct?

7 A. Right.

8 Q. And the red boxes that are drawn into plate two
9 to show where you took metal or where you performed
10 metallurgy tests --

11 A. On the base metal.

12 Q. -- on the base metal plate two; is that correct?

13 A. Yes.

14 Q. Okay. Now, we moved -- then you moved on to
15 plate six which shows with red dotted lines where you cut
16 plate six. And then there's an insert that goes back to
17 the previous page page 15 showing the cross-section of
18 plate six after you had cut it.

19 A. Yes.

20 Q. Okay.

21 A. And these two little yellow "V"s and the red
22 here, that's a little shorthand or symbol that we use to
23 show how we're viewing or what's the viewing surface.

24 Q. Okay.

25 A. So in the trans mount we're viewing this way
26 which means we cut it here (indicating) which means what

1 would the range that we'd be looking at. We'd be looking
2 across the part. So that's why we call it transverse.

3 Similarly, up here it's going this way which is
4 the long direction of the part. So that's why we called
5 it long mount.

6 Q. And again, you're pointing at the plate in the
7 picture?

8 A. Yes. I'm sorry.

9 Q. Thanks for explaining the yellow "V"s.

10 A. Yeah.

11 Q. Most of us would have thought those were
12 backfires; right?

13 A. It's a lot of words, but basically what it means
14 is we want to look at the inside of the metal in this way
15 so we're looking like that (indicating). And we wanted
16 to look at the inside of the metal this way so we're
17 looking like that. So just parallel to the ligament and
18 perpendicular to the ligament are the two directions that
19 we are looking at.

20 Q. Beautiful.

21 A. It's a little simpler like that.

22 The next figure just shows the microstructure,
23 which is a fancy word for saying what did the metal look
24 like after we polished it and etched it with a little bit
25 of acid. And it's a microstructure that is typical of a
26 plain carbon steel.

1 And the reason that we say that is it's
2 compromised of basically two phrases. The white phase is
3 something called ferrite which is just almost completely
4 iron. And the dark phase is something called pearlite
5 which is a very fine structured mixture of ferrite and a
6 higher carbon content material called cementite.

7 And this is -- this is telling us -- because the
8 transverse and the longitudinal view look the same, this
9 is telling us that the material is -- has the same
10 microstructure in both directions. So it hasn't been
11 deformed. It hasn't been cooled too fast from the
12 processing temperature that would form things that look
13 very different which would make it really hard and
14 potentially brittle.

15 And it's just telling us that the material
16 looked to be the right type of material as much as you
17 can tell from looking at the microstructure. And there's
18 no -- there's nothing wrong with it. It was probably
19 manufactured by a process that's called annealed which is
20 a heat treatment.

21 So Figure 9 we're just looking again at some of
22 the cross-sections from the wear surface. So these areas
23 at the -- the boundary between the dark and the light
24 area in each of these pictures is where all of that wear
25 occurs. And what we're seeing is that there is some
26 corrosion. These pits are corrosion in 9c. We're seeing

1 some corrosion products in 9d and in 9c which is the
2 lighter-colored stuff which is telling us that the
3 surface is rusting which again is telling us that it's
4 not abrading very fast.

5 And we're seeing a lot of plastic deformation.
6 For example, in 9b these little pieces that look like
7 they've almost been pulled like that, stretched, that's
8 plastic deformation which again is a characteristic of
9 adhesive wear.

10 Q. Okay.

11 A. So it's just telling us that again everything
12 looks like it should based on what we thought was going
13 on.

14 Figure 10 is sideways, but that's okay. It's
15 the other view of the failure surface. And the most
16 important takeaway from this is just that if you remember
17 the picture that we saw before of the microstructure
18 where I said everything looked good and it looked like
19 the material is supposed to look, if you look close to
20 this surface, this is indicating that the red box at the
21 top of the page came from where it's indicated and the
22 red box at the bottom came from here [indicating].

23 If you look at these blown-up pictures in these
24 red boxes, you can see that the material is really
25 smeared. It's not those nice colonies of pearlite in
26 this nice clean white matrix. It's actually smeared.

1 And if you look here (indicating), this is five
2 thousandths of an inch. So you talk about this is, you
3 know, fifteen or twenty thousandths of an inch deep. The
4 metal is still distorted. And that's telling us that the
5 wear process deforms the metal below the surface which is
6 characteristic of a specific type of contact, sort of
7 rolling contact and wear.

8 Q. All right. On to Figure 11.

9 A. It's not interesting but . . .

10 Figure 11 is not super relevant, but it just
11 shows a really nice pretty picture of the material in 11b
12 where it squeezed out from the side. So what we're
13 looking at is if my hand were the plate, then you'd be
14 stretching out the hole here this way and looking this
15 way (indicating) so the material looks like it squeezed
16 out and went perpendicular to my hand like that.

17 You see this nice curving thing like this, it's
18 all the material that squeezed out. If this were
19 perfect, it would just come up and turn left. But it
20 squeezed out like that. So it really deforms the
21 material showing the metal itself is not brittle. It's
22 ductile meaning that it can form plastically. It can
23 bend, deform, smear.

24 Figure 12 is very similar to the -- it's very
25 similar to Figure 8 which was the nice microstructure
26 pictures that I showed you when I said the material looks

1 like it's supposed to look. Well, this is what it looks
2 like under the -- under the wear surface. So very close
3 to the surface in (a).

4 Those nice colonies of pearlite all broken up
5 and smeared this way, it's just showing that there's a
6 lot of local stress there and that the material has been
7 deformed plastically.

8 And (b) is a little bit deeper and (c) is even a
9 little deeper. And (d) -- by the time you get to
10 (d) you're sixty-five thousandths of an inch below the
11 surface and the material starts to look normal.

12 So this is telling you a couple of things. It's
13 telling that you once you get about sixty-five
14 thousandths of an inch, less than a tenth of an inch --
15 and this ligament is almost three-tenths of an inch thick
16 or this particular one was more than three-tenths of an
17 inch. Once you get about less than a tenth of an inch
18 below the surface, the material looks just like it does
19 far away from the hole.

20 And the other thing it's telling you is that
21 it's not just degrading -- obviously just degrading at
22 the surface, but the stresses are not just acting on it
23 at the surface. They're acting below the surface which
24 just helps us identify a little bit more of the physics
25 and the mechanics behind the wear mechanism. But from a
26 practical perspective or a lay perspective it's not super

1 important.

2 Q. All right.

3 A. To a scientific guy it's really cool and really
4 interesting.

5 The same thing actually applies to Figure 13.
6 Now, these are the same type of --

7 So if you could go back for a second. I had a
8 hard time figuring out -- you see how these white grains
9 are very clean. They just look white. This should be
10 the same stuff, but it looks very -- kind of like
11 somebody sprinkled pepper on it. And I wanted to
12 understand why does it look like that? What's going on
13 here? Is this a problem? Should it be like that or
14 what's going on?

15 And so what I discovered was that this sheering
16 where things are getting smeared out like that here is
17 actually breaking up these colonies. And those colonies
18 are showing up like debris here. And in order to prove
19 that I looked at it as -- so these are at 500 x
20 magnification. I looked at it at a higher magnification.
21 And in order to do that I used an electronic microscope.

22 So if you go to the next page, page 21, these
23 are scanning electron micrographs or microscope images at
24 a thousand x for these, I guess.

25 So these are 500 and a thousand. So 500 -- one
26 of the things that it does it has a deeper depth. So you

1 can actually see on the topography and you can see that
2 the peppery stuff is sticking up a little bit. And then
3 at a thousand x you start to be able to see that what
4 we're actually looking at is a pearlite colony getting
5 smeared and broken up. And so that's why it looks like
6 it's full of debris. It is full of debris.

7 And then this is what the pearlite looks like at
8 high magnification. So this is what the material looks
9 like, you know, at, you know, a little bit less than a
10 tenth of an inch below the surface. This is what it
11 looks like in the surface. Very different.

12 Q. All right. So a and b are at the surface, c and
13 d are below the surface?

14 A. I apologize. a and c are at the surface.

15 Q. a and c are at the surface?

16 A. b and d are below the surface.

17 Again, I apologize. Not super interesting for
18 you guys probably but to a technical guy it's super cool.

19 Moving on to page 22 we contracted an external
20 lab to test the material strength. So we cut out parts
21 away from the cracked surfaces from the body of the
22 plate, pulled on them, and determined the yield strength
23 and the tensile strength and the elongated failure.

24 So what those mean are if you cut a piece of
25 this material and, in order to get results that can be
26 compared to other test results, like if two different

1 labs did it, you do them -- you make these parts a
2 certain shape and size so it's part of the standard. You
3 pull on it in this machine with, you know, thousands of
4 pounds of force and eventually as you pull on it, it
5 stretches a little bit. And if you would let go, it
6 would go back to the same shape. Right? And that's
7 called elastic deformation.

8 If you pull on it -- and everybody has done
9 that. Let's say with this thing; my eye glasses. If I
10 bend it a little bit, that's elastic. It went back to
11 the same shape. But I could bend it harder and it
12 wouldn't go back. And that's called plastic deformation.

13 And the yield strength is where plastic
14 deformation starts. That's kind of like how hard can you
15 pull on the part before it deforms to the point where it
16 doesn't go back? That's the yield strength.

17 The tensile strength is how hard you pull on the
18 part before it actually just breaks. So you could think
19 of that as the ultimate strength or the strength at
20 failure. And these are given in units of pounds per
21 square inch. They're scale to the size of the part.

22 And then the elongation for failure is basically
23 how much percentage longer does it get before it actually
24 breaks? So it gets 36 percent. That's a lot of
25 elongation. And that is telling you that you have a good
26 part that is ductile. It's not brittle.

1 And these strengths are consistent with the ASTM
2 standards that I talked about before; A7 and A36. And
3 those values are given in the last two columns. So
4 essentially the yield strength measures 43, 36, and 40
5 approximately. And this is telling us that the minimum
6 yield strength of A7 was 33. So it meets A7. And the
7 minimum yield strength by A36 was 36. That's where the 36
8 comes from in the more modern standard. And it meets it.
9 And similarly with these numbers here, we're in the
10 proper ranges and similarly with the elongation we're in
11 the proper ranges.

12 So it's telling us -- all these casings are
13 telling us that the material appears to be good material
14 properly manufactured with the proper properties to be
15 the alloy that we think that you would make a plate like
16 this out of and that we would make a plate like this out
17 of today for sure.

18 Q. Okay. So go on to Table III on the bottom half
19 of page 22.

20 A. Same everything except instead of strength we
21 are talking about the chemical composition. These
22 numbers are weight percents. So, for example, weight
23 percent of carbon, weight percent of Manganese,
24 Phosphorous, Sulfur, Silicon, and Copper. But so
25 otherwise it's all the same.

26 When we're comparing those, what we found to the

1 limits that are set out in the two standards is the
2 material was consistent with both of those standards.

3 Q. Okay. On to page 23.

4 A. So there was some discussion. So now if you can
5 imagine we have these parts and they have a little bit of
6 metal that is below where the hook would be. So you look
7 at them and you go "Wow, that's a lot of wear. I wonder
8 how strong this part is?" And we have actually gone and
9 figured out how strong the metal is.

10 So the next thing that you can do logically in
11 your head is you can say "Well, if I know how big the
12 metal piece there that is holding the load is and I know
13 how strong the metal is, I can probably predict how
14 strong that little piece that is holding up the load is."

15 And so I actually had one of the mechanical
16 engineers at the facility where I work model this up for
17 me. And he did what is called a shear tearout mechanism
18 as, you know, being the appropriate mechanism for how to
19 model the strength of that. And he generated this plot
20 of how much load in thousands of pounds.

21 This should say -- these are -- this got
22 distorted on this. But these are thousand pounds of
23 load. And this is how thick the ligament would have to
24 be -- let me say that backwards and say this is how thin
25 the ligament would have to be to fail at that load.

26 So what this is telling you if you have 4,000

1 pounds, this is telling you that you would have to be
2 about total .08 or .07 inches of ligament to hold it up
3 or else it fails. At 12,000, you know, maybe that's
4 closer to .23 inches. Otherwise, it fails.

5 And there's a reason there are two lines. If we
6 use the minimum -- so we used for the calculation the
7 strength we measured. But usually you don't design
8 things based on the strength that you actually have in
9 your part. You design things based on the minimum
10 strength called out by the standard because a different
11 part might barely make that minimum strength whereas the
12 part you measure might be over strength. So you usually
13 design by the minimum strength called out by the
14 standard. And so that's the other line.

15 The strength we measure, the minimum strength,
16 and the A7 standard; two lines. They don't make much
17 difference but a tiny bit. So that --

18 Q. Go ahead.

19 A. No, please.

20 Q. So I was going to ask you were you done on the
21 top chart?

22 A. Yeah.

23 Q. Okay. I was going to ask you about the bottom
24 chart now Table 5.

25 A. So we know that when you measure out those
26 plates and you figure out that big hole that the

1 insulator is hanging from, if there was no wear, there
2 would be approximately .9 inches of material. Is that
3 right? I think it was .9.

4 Excuse me for a second. No. I'm sorry. It's
5 .75. I think it was .75.

6 Regardless, we know about how much metal would
7 be below the hole and now we know how much metal is left.
8 So we know how much metal is lost. And it was about -- I
9 think about a half an inch roughly.

10 So if we know the part has been in service for
11 72 years, we can divide those two numbers and estimate
12 the wear rate. And there's a lot of assumptions that go
13 into that approximation, but that's what we call a linear
14 approximation because we don't have any data in the
15 middle to tell us if it wore really fast in the beginning
16 and then slowed down and now it's wearing really slowly.

17 We don't know any of that, but we can make
18 what's called a first order estimate and just do this
19 linear approximation. We take where we started, where we
20 are now, that gives you a thickness of metal that you
21 have lost. And you divide it by the number of years and
22 that gives you an amount of metal per year that you've
23 lost on average over the last 72 years. And that
24 number -- the worst number for that was about .007 inches
25 per year.

26 So if you estimate -- if you estimate the load

1 on the plate to be between 4,000 and 5,000 pounds, which
2 we estimated based on the weight of the insulator and the
3 weight per foot of the conductor and the length of those
4 two spans, then you can predict how long had this seven
5 thousandths of an inch per year wear rate before you get
6 to the critical ligament thickness where you're going to
7 actually fail the part.

8 I made some assumptions that I'll get into in a
9 second, but this is important. Rather than predicting
10 the load itself, we actually just plotted it as a
11 functioning load.

12 So if you're going to lose seven thousandths of
13 an inch per year, which is a linear approximation, but
14 that's the average that you've seen over the last
15 72 years. If you put no load on it, well, that obviously
16 doesn't make sense. It will last for 40 years. That
17 doesn't make sense. In 40 years you're going to lose all
18 the rest of the ligament. If you put 12,000 pounds of
19 load on it, you're only going to last between five and
20 ten years before it fails.

21 And then that's where we get to the point where:
22 Well, how much load is actually on it? And we estimated
23 based on the things that I said already -- the insulator
24 and the conductor -- that there was actually between
25 probably 4 and 5,000 pounds on the plate in terms of the
26 load from the conductor and the insulator.

1 So that would tell you ballpark 25 years before
2 you get to the point where it -- the ligament gets so
3 thin that it fails.

4 Now, we made some assumptions in that. I've
5 already pointed out one assumption which is that we're
6 assuming that this wear rate was linear. In my opinion,
7 that is conservative because I believe that it would wear
8 faster at the beginning just based on the geometry of the
9 two parts.

10 The other really critical assumption made in
11 that is that as that ligament gets thinner, the stresses
12 get higher. And as the stresses get higher, you can
13 introduce another way of the thing failing and cause it
14 to crack. So it's quite possible that it could crack
15 before it gets to the point where it fails by this
16 mechanical loading. And that's why we -- that's why we
17 point out those assumptions that we made in page 7, on
18 page 7.

19 There are a couple other things we don't know.
20 In 1999 they put those big -- have you ever seen those
21 orange balls they put on the power lines. Those are
22 called aviation markers. Those things are bigger than
23 they look. They're three feet in diameter. And they put
24 those on in 1999. And I don't know what, if any, impact
25 that has on the conductor motion.

26 The other thing is if anything was ever done to

1 this line that changed the wear -- the loading on it, if
2 they re-conducted with a different conductor, I don't
3 know. So I don't really know the loading. Maybe it
4 wasn't always there.

5 So we pointed out -- we made a lifetime
6 prediction. We pointed out the assumptions that we made.
7 We feel that it's appropriate to make this prediction
8 because after all these parts are not in service. So
9 we're not actually making a repair, replace, or leave in
10 service decision based on this rudimentary linearization,
11 you know, prediction that is based on the linearization
12 of the wear rate.

13 And then we made based on this recommendation
14 that, you know, for sure this wear rate and this
15 calculation for remaining lifetime is telling us that
16 this thing is not in danger of falling down in the next
17 year or two or five, but it's definitely worth inspecting
18 the other towers around to see if they have a similar
19 condition. Because while 25 years is not disastrous,
20 it's also not great. And this is an estimate. So that's
21 where the recommendation came from.

22 Q. Right.

23 A. So I think that --

24 Q. And one of the other assumptions is that these
25 hanger plates had been in use for 72 years prior; right?

26 A. That's true.

1 Q. You don't know that. It's just that's what the
2 records say is that it was installed in 1946.

3 A. And that is not even actually correct. The
4 records say that the insulators and the towers were
5 installed in 1946. I couldn't find any documentation to
6 say when the suspension plates were installed. I
7 couldn't find any documentation to say that they have
8 never been replaced. But I couldn't find anybody that
9 would say that they thought that they had been replaced
10 either.

11 And I asked the transmission line construction
12 and maintenance guys and I asked the civil engineers, and
13 everybody seems to be of the thinking that they were
14 probably original, but I don't have any more information.

15 Q. But you do know that these towers were built in
16 1946?

17 A. That's the information that is in the ET-GTS and
18 it was confirmed by the civil guys.

19 Q. Right. So the oldest that these -- assuming
20 that the hanger plates were original, the oldest they
21 could be is 72 years?

22 A. That's correct.

23 Q. Now, how would it affect your conclusions in
24 that the seven one-thousandths of an inch per year wear
25 if actually those hanger plates were installed much
26 later? Say 10, 20, even 30 years?

1 A. The wear rate would be high. If you
2 recalculated it based on the shorter lifetime, you've
3 lost a certain amount -- the amount of material you lost
4 is fixed. And we got to the wear rate by dividing that
5 by the age. If you make the age smaller, the wear rate
6 gets higher. And then if you cascade that down, your
7 predicted lifetime gets lower.

8 Q. So a lot rides on whether or not that hanger
9 plate was from 1942 or 1946 or not?

10 A. So I'm going to consider that -- I would
11 disagree with that statement because they've already been
12 removed from service. And the goal or the purpose of the
13 assessment was not to, you know, say how much longer can
14 we leave these things in service. The goal of the
15 assessment was to say "They look really bad. When we
16 found them, were they actually really bad or were they,
17 you know, better than they look?" And I think even if
18 you -- however you slice it, it's better than it looks.

19 Q. Right. Ultimately, your finding is that no
20 matter how bad some of these hangers look -- and we're
21 looking at page 12, Figure 3 -- these still have quite a
22 bit of life in them and they're not ready to go away
23 right away. Is that about it?

24 A. Yeah. And to -- yes, that's it. For example, I
25 believe that lower -- that lower one Figure c, by the
26 calculation that was done by the mechanical engineer --

1 he is also, I believe, a Ph.D. mechanical engineer and
2 does these types of calculations for a living. His
3 calculation indicated that that ligament there had a
4 breaking strength around 13,000 pounds. And our best
5 estimate is the load on it was actually about 4 to 5,000
6 pounds.

7 Q. Now, you wrote all of this up in your report?

8 A. Yes.

9 Q. Correct?

10 A. Yes.

11 Q. And your report has published within PG&E?

12 A. Please explain what you mean by "published
13 within PG&E."

14 Q. Well, a copy of it goes to Mr. Hernandez?

15 A. Correct.

16 Q. A copy of this would go to the reliability
17 specialist Jeff Lockwood.

18 A. Yes.

19 Q. A copy of it stays in the -- in the lab?

20 A. In the archive, yes.

21 Q. You keep a copy. Your own copy; correct?

22 A. In the archive. It's within our ATS, which is
23 the 120 personnel organization that I work within, has an
24 archive of reports. So we log all these reports for, you
25 know, archival purposes. But widely dissimilated? To
26 the best of my knowledge, I don't know.

1 Usually, when I deliver a report like this to a
2 person like Jeff -- excuse me -- Dave, I give him a
3 little bit of a -- some sort of a statement to the effect
4 of, you know, "Please distribute this as you see
5 necessary because I might have missed someone."

6 Q. Okay. But this wouldn't go out, say, to the
7 Transmission Asset Management Division of PG&E, at least
8 not from you?

9 A. Not from me, no.

10 Q. Okay. But you don't know if it eventually got
11 to them through some other manner?

12 A. That's correct.

13 Q. But ultimately, your finding is that based upon
14 these hanger plates that you were provided, this is how
15 quickly those hanger plates are wearing out. And this is
16 approximately the age that you would expect that these
17 hanger plates would be no good anymore.

18 Does that about sum it up?

19 A. Under this environmental and application
20 condition. So, you know, the wind factors into it, the
21 proximity to the coast factors into it, the actual load
22 which relates back to the span length and all of that
23 other stuff factors into it. But with all of that great
24 big, you know, "yeah but" attached to it --

25 Q. Right.

26 A. Yes, sort of.

1 Q. So --

2 A. I mean, those are a lot. The environment plays
3 a big part in it and also the orientation with respect to
4 the prevailing wind. But similar hanger plates with a
5 similar amount of stuff hanging from them in a similar
6 environment should be expected to behave similarly.

7 Q. Yep. And you said that based upon everything --
8 all the experimentation, all the calculations, the tests
9 that you did that are all detailed in your report -- that
10 these hanger plates that are shown in Figures 3 and 4
11 that Mr. Hernandez brought you have approximately 25 to
12 28 years of life left in them before that ligament can no
13 longer hold the -- the weight of the string; is that
14 correct?

15 A. Would have had that much life if they had been
16 left in place. And based on -- based on the -- you know,
17 the assumption that I list out in the report, these
18 assumptions can be considered somewhat disclaimers.
19 Right?

20 Q. Right.

21 A. It's quite likely that before it actually tears
22 out, it may develop a cracking mechanism which would
23 decrease the age a little bit. And again, that -- that
24 25 years is not intended to say that you're rock solid
25 for 25 years. It's intended to say that these look
26 really bad, but you're not talking about two years or

1 five.

2 Q. So based upon the assumption that these hanger
3 plates were 72 years old when they were taken out of the
4 tower; correct?

5 A. Yes.

6 Q. Which would put their life -- their usable life
7 based upon your calculations at anywhere from 97 to
8 100 years?

9 A. Potentially.

10 Q. Right?

11 A. As long as they didn't start cracking.

12 Q. I'm not real good at math.

13 A. I wouldn't push it that close but --

14 Q. Exactly.

15 A. Right.

16 Q. So the ultimate question on that is do you know
17 if this was -- this was -- this report was dissimilated
18 or this information was pushed out to people who are
19 dealing with transmission lines with similar hooks,
20 similar poles that were over 90 years old?

21 A. Can I go back to your prior question for a
22 second?

23 Q. Go ahead.

24 A. Just very briefly. When I ceded your point
25 about the 90 years, I was just strictly thinking about
26 the numbers.

1 Q. Right.

2 A. There are these issues of GO-95 and required
3 safety factors and whatnot that would preclude you from
4 pushing that far. Right?

5 Q. Yeah. We're not even getting into --

6 A. This is all just sort of a paper experiment;
7 right?

8 Q. Exactly.

9 A. When you say 25 years based on this, again it's
10 just to say, you know, this means it's not getting ready
11 to fall down. That's really it.

12 Q. Right.

13 A. So then your question was do I know about the
14 semination of the report?

15 Q. Right.

16 A. Is that what it was?

17 Q. To your knowledge, did this go out to any of the
18 people that would have been dealing with transmission
19 lines over 90 years old?

20 A. Not to my knowledge. But if it did, I probably
21 wouldn't know.

22 Q. Okay. And you said yourself earlier that when
23 you would have talked to Mr. Hernandez about this, you
24 would have recommended "Hey, you need to go back and look
25 at similar hanger plates and make sure they're okay too;
26 right?

1 A. I limited my recommendations because of the --
2 and we see this a lot; right? Really location-dependent
3 behavior; right? Similar conduct. For example, wind
4 behaves very differently in the mountains than it does by
5 the coast. That's just an obvious example.

6 So I limited my recommendation essentially to
7 what it says. "Perform targeted, additional inspections
8 at selected locations where environmental and loading
9 conditions can be considered to be equivalent."

10 And then I list out a few things of what that
11 means. So the reason that I do it that way rather than
12 say "Go pick these areas to inspect" is because I don't
13 know the system like that.

14 Q. Yeah.

15 A. So . . .

16 Q. Now, when you were --

17 A. And one last thing. I'm not sure -- I suspect I
18 never delivered that recommendation verbally, by the way.

19 Q. Okay.

20 A. It's in the report.

21 Q. Okay. Yep. We just want to make sure we get
22 everything right.

23 A. I don't recollect -- it's possible that I did.
24 I don't recollect discussing this report verbally with
25 David.

26 Q. Okay.

1 A. Just to be very clear.

2 Q. Yep. And we -- more than anything else we want
3 to make sure we've got it right. So if anything let us
4 know.

5 All right. Do you know if anybody else has done
6 previously any similar type of analysis at PG&E?

7 A. I'm not aware of any.

8 Q. How about outside PG&E on a national or
9 international scale? Do you know if anyone has done any
10 analysis of wear patterns on hanger plates?

11 A. I'm not aware of it.

12 Q. How about on the hooks themselves?

13 A. I haven't done -- I'm not aware of it. Oh, I'm
14 aware of some strength testing that was done. I'm not
15 sure when. Maybe the '80s or the '90s at ATS on hooks.
16 And then that's all that I'm aware of regarding hooks.

17 Q. Okay. Now, when you got these six hanger
18 plates, you didn't get hooks to go with them; correct?

19 A. That is correct.

20 Q. Would the hooks have been significant in making
21 a determination of the wear?

22 A. I believe the hooks would have been interesting
23 to me but really having the hooks wouldn't have changed
24 anything with respect to the -- the assessment of the
25 hanger plate itself. I probably would have evaluated the
26 hooks for completeness, but all the evidence you need is

1 in the hanger plate itself.

2 Q. Okay. All right. Anything else from the report
3 that you think is important for us to cover?

4 A. I don't think so.

5 Q. All right. Now, I want to move on to a few
6 other things.

7 A. Can I take just a two-minute break real quick
8 before we --

9 GRAND JURY FOREPERSON: Yes.

10 THE WITNESS: Thank you.

11 MR. NOEL: Sure.

12 GRAND JURY FOREPERSON: Two minutes?

13 THE WITNESS: Yeah. I just need to pop out
14 there.

15 GRAND JURY FOREPERSON: Sure.

16 MR. NOEL: Same admonition as normal; don't talk
17 to anybody on the way to or from.

18 THE WITNESS: Okay.

19 [Break taken from

20 11:00 until 11:05 a.m.]

21 MR. NOEL: Everybody ready? Everybody still in
22 place?

23 BY MR. NOEL:

24 Q. Okay. You indicated there was something you
25 wanted to clarify from your report.

26 A. Yeah, regarding the distribution. It slipped my

1 mind, but we -- specifically, it looks like my supervisor
2 attached a copy of the report to the CAP item in our
3 Corrective Action Program. So if you remember that, we
4 talked about it in the beginning about how this has a CAP
5 item associated with it in the table.

6 Q. Right.

7 A. So a copy of that report was -- was attached to
8 the CAP item meaning that everyone in PG&E has access to
9 it and anyone who was specifically coming to look at this
10 issue of the -- these plates and what was done would have
11 found the report if they had been looking at the
12 attachments.

13 Q. Okay. Thank you.

14 A. So that is just clarifying the distribution.

15 Q. All right. Occasionally, does PG&E let you out
16 of the lab?

17 A. They let me out today.

18 Q. They had no choice today.

19 A. Yes, occasionally.

20 Q. And specifically, back in March did they send
21 you up here to the beautiful Feather River Canyon --

22 A. They did.

23 Q. -- for a couple of days?

24 A. The 28th and 29th. Something like that.

25 Q. And why were you here?

26 A. Some equipment was being removed from the

1 Caribou-Palermo Line, three structures specifically that
2 resembled in their configuration the structure where the
3 Camp Fire is thought to have potentially started. And
4 those materials that were removed from those structures
5 were going away forever, I believe, to the FBI lab. And
6 they wanted me to document what was taken and, you know,
7 put some eyes on the condition of that before it went
8 away forever.

9 Q. Right. So we let you into the evidence handling
10 area and let you document, measure, and everything else
11 with these?

12 A. Correct.

13 Q. Okay. I put up on the board Exhibit 424. It's
14 already been entered into evidence.

15 Do you remember this hook specifically and
16 insulator string?

17 A. I do.

18 Q. And did something catch your attention when this
19 hook and insulator string came off the tower?

20 A. The condition of the hook.

21 Q. Why so?

22 A. The wear is severe. But even more than -- even
23 more than the depth of the wear, how sharp it is and how
24 sharply defined and localized it is. It's like you went
25 in there and sliced it out with a scalpel or something.
26 It really surprised me.

1 Q. All right. Move on to 425, a little different
2 view. Does that show the -- what you're talking about?

3 A. Yes.

4 Q. Now, you have not been able to do any testing on
5 any of the equipment that was removed from the exemplar
6 towers; correct?

7 A. That's correct.

8 Q. But I think we talked about this previously when
9 you and I met and we were talking about the wear patterns
10 in these hooks.

11 A. Yes.

12 Q. And you were kind of explaining your theory on
13 how those hooks would wear and how that would -- I guess
14 age is the word that I was looking for. Do you recall
15 that?

16 A. Yes.

17 Q. What do you see -- what determinations or what
18 can you opine as to the -- how these hooks are going to
19 age or how this wear pattern is going to affect these
20 hooks long term based on what you're seeing?

21 A. Let me think. Well, clearly the strength has
22 been degraded. You're talking about two-thirds of loss
23 of material. Something like that.

24 The shape of the wear is very different than
25 what I've seen in more common applications. And, of
26 course, I've never seen anything worn like this. But the

1 thing that really caught my eye, like I was saying
2 before, is how sharp that notch is.

3 Usually when you get a hook off a tower, the
4 area where it's worn in, all the ones I've seen except
5 for these were very superficial. But some of the ones we
6 pulled that day were fairly superficial too. And the
7 wear area is usually smeared out kind of football-shaped
8 on the inside of the hook which indicates that the hook
9 is moving around in various different ways. You know,
10 it's rocking and it's yawning and rotating a little bit.

11 So the contact is really moving around and it's
12 sort of distributing the wear over a big area. And this
13 looks like the hook was only allowed to do one thing and
14 that is rock this -- you know, rock in one plane. And
15 that's why --

16 And this is total speculation. I'm not a civil
17 engineer. I'm not a mechanical engineer, and I haven't
18 seen a lot of these hooks. And I've never seen one like
19 this before that day. But it sure looks like it only was
20 allowed to rock in one plane.

21 Q. Almost like it was on top of a saw; right?

22 A. Kind of like that instead of being like on top
23 of a bowling ball where it would be going like this
24 (indicating) sitting right on top of one thing doing that
25 (indicating).

26 Q. Now --

1 A. That's what it looks like.

2 Q. We're looking at Exhibit 426 now. And one of
3 the things that struck my eye after talking to you and
4 going through the pictures from the -- from the
5 Parkway-Moraga Line is right here, this (indicating) kind
6 of defamation at the top of the hook.

7 A. Yeah.

8 Q. Do you see that?

9 A. I do.

10 Q. It kind of looked to me to be similar to what
11 you had previously been describing to us and pointing out
12 to us on those pictures.

13 What -- how would you describe this, for lack of
14 a better term, ooze?

15 A. I would describe it as what we call probably
16 material transfer. And that is where you've got these
17 two things rubbing against each other and then material
18 kind of sticks together. And then as the part moves it
19 drags the material over somewhere else. And then
20 eventually you end up taking this dragged material and
21 squeezing it out the sides. That's what it looks like
22 from this one picture, but I also notice that it's not in
23 the other pictures.

24 Q. Right. That's why I threw in this extra
25 picture. Because in that one picture the light just --
26 it picks it up and you can really see it in there.

1 A. It could be that. It might not be indicative of
2 an overall mechanism if it's not present in the other
3 location though. But, you know, it could be that. And
4 there is no question it's wear. And so at this point I'm
5 not sure if it matters what the wear mechanism was.

6 Q. And finally, we have 427, hanger holes.

7 A. Yep. I remember this one, too.

8 Q. Why do you remember this one?

9 A. So it looks like one hole wore out and they
10 bolted on a modification to have a new hole to hang from.

11 Q. Have you ever been able to find anything out
12 about when this modification was added?

13 A. I never looked.

14 Q. Okay.

15 A. But the insulators were dated -- my recollection
16 is that the insulators on that string were dated 1949,
17 which is definitely more recent than the other
18 insulators.

19 Q. 1949. And where did you get that from?

20 A. It's my recollection that they were marked with
21 that date.

22 Q. Okay.

23 A. The insulators themselves.

24 Q. The insulators themselves. Okay.

25 A. It should be in the photos.

26 Q. I didn't bring any photos.

1 Another picture of the wear. Oh, I did want to
2 go back to one more thing. We talked about the -- let me
3 start that sentence over again.

4 With the Parkway-Moraga Line we were talking
5 about corrosion. And you talked a lot about the
6 difference between, say, coastal and valley and mountain;
7 correct?

8 A. Yeah.

9 Q. And a lot of that has to do with the corrosion
10 because of the amount of salt that is in the air?

11 A. That's correct.

12 Q. Thank you.

13 There seems to be a similar amount of corrosion,
14 at least to my untrained eye, on the hanger holes that
15 are coming off of the Caribou-Palermo in this case 24189.

16 A. I would tend to disagree.

17 Q. Okay.

18 A. To me this corrosion is not as deep. It's more
19 what I would call superficial.

20 Q. But we're looking at 427 again. What I'm
21 referring to is the corrosion, this discoloration in the
22 ligament and the edges of the -- of the hanger plates.

23 A. Yeah. I can't really comment on that. I just
24 don't know.

25 Q. Okay. You haven't had the opportunity to put
26 any of these under the microscope?

1 A. No, certainly not.

2 Q. All right. And 429. And then we go to 430,
3 another one showing -- just from what you were seeing and
4 what you saw out there, are we seeing similar wear
5 patterns to what you saw with the Parkway-Moraga hanger
6 plates?

7 A. Some aspects of it look similar. Some of it
8 look -- I see some differences. And I'm not sure if it's
9 significant.

10 Q. Okay. And for the record, you're looking at
11 Exhibit 430.

12 A. Four thirty.

13 Q. And finally, 431. Oops. Sorry.

14 Do you see anything in 431 that you think just
15 from your trained eye would be significant?

16 A. This one looks very similar to the
17 Parkway-Moraga for sure; the pattern and material and the
18 pattern of wear.

19 Q. And we're seeing a lot of corrosion around here?

20 A. Yep.

21 Q. Included in the -- in the keyholing itself?

22 A. Uh-huh.

23 Q. And what about the material here on the edges?

24 A. It looks like that abrasive -- excuse me. I
25 take that back. Adhesive wear type squeezed out
26 material. It looks like it. It could be something else.

1 Q. All right.

2 A. It could be delamination of the -- I think it
3 is.

4 Q. Delamination or --

5 A. It could be the galvanization coming out, but I
6 don't think that's what it is.

7 MR. NOEL: Okay. I have nothing further for
8 Dr. Martin.

9 And I forgot to tell you this previously. The
10 jurors have the opportunity to present written questions
11 for you.

12 THE WITNESS: Okay. I was aware.

13 [Conferring off the record
14 with the grand jurors.]

15 BY MR. NOEL:

16 Q. All right. Do you know what dead-end suspension
17 hooks or hanging brackets are?

18 A. Yeah.

19 Q. Have you ever received dead-end suspension hooks
20 or hanging brackets from the 115 transmission line
21 Caribou-Palermo?

22 A. No.

23 Q. Are you personally familiar with the
24 Caribou-Palermo transmission line?

25 A. Only to the extent that I'm aware that it's been
26 implicated in the Camp Fire and to the extent that I went

1 up there for those two days to assist with the equipment
2 removal from those three structures.

3 Q. Do you have any knowledge of the general age of
4 the components of the line?

5 A. Of the Caribou-Palermo Line?

6 Q. Yes.

7 A. Only what's been reported, you know, external to
8 PG&E.

9 Q. Okay.

10 A. The general age.

11 Q. According to your report, are you aware that all
12 those insulating hanging hardware parts have no record of
13 replacement and are currently at -- okay. I'm not
14 reading this very well.

15 Are you aware that there are insulating hanging
16 hardware parts that don't have any records indicating
17 that they were replaced during the lifetime of those
18 towers that are at or past a reasonable wear lifetime?

19 A. Is the question asking if I'm aware of
20 components that are on that line that are past their
21 lifetime?

22 Q. Okay. Yeah, that's a good --

23 A. I'm not aware of the condition of that line.

24 Q. So, for instance, we're talking about -- we have
25 up here in front of us 431.

26 A. Wait a minute. Was the question about the

1 Bahia-Moroga and Parkway-Moraga? Because they're
2 referenced in the report.

3 Q. You're right. Maybe it is, yeah. I'm putting
4 everything in the Caribou-Palermo Line.

5 GRAND JUROR NUMBER FOUR: Actually, that's what
6 it's aimed at. The Caribou-Palermo, not the other one.

7 BY MR. NOEL:

8 Q. Okay. So the question is -- I guess I'm having
9 difficulty. But basically are you aware that on the
10 Caribou-Palermo there are hooks and holes that are
11 currently at or past their reasonable useful life?

12 A. I'm not aware of the conditions of anything on
13 that line, only of the components that we pulled out on
14 those two days.

15 Q. Okay. So the follow-up question to that is
16 based upon your observations of those two days, what
17 would your recommendation to PG&E be regarding that line
18 or others of similar age and type?

19 A. So in order to answer that question, I think
20 that you have to point out that this is a very specific
21 type of tower in that the wear that we observed was in a
22 specific location on that tower. So I think that -- and
23 again, I'm not a transmission line engineer and I'm not a
24 civil engineer. But I mean, the logical recommendation
25 to make having seen this is to inspect especially that
26 location on similar transposition towers of similar

1 design and vintage.

2 Q. Right. So you'd be talking about -- you know,
3 let me see if I can summarize it. That probably they
4 need to be out looking at the wear patterns and the hooks
5 and the holes, the cold-end attachment hardware holding
6 the jumper line on pre-1930 transposition towers?

7 A. I think that that would be a reasonable
8 recommendation to make based on what we have learned and
9 what we've seen. I think -- and I'm just trying to run
10 this through my head; right?

11 So would I be comfortable to make that
12 recommendation? To be really honest, that is a little
13 bit more broad than a recommendation that I would make.
14 If I received a component from a line, I probably would
15 make a similar recommendation but limit it to that
16 transmission line and then rely on the powers that be in
17 the, you know, transition line maintenance or asset
18 management team to expand the scope of the investigation
19 as appropriate.

20 Is that fair? I think it would be more
21 comfortable to say that.

22 Q. Yep. Okay.

23 All right. Have you ever written a similar
24 report on similar materials or components prior to June
25 of '18?

26 A. No. Actually, this was my first wear report.

1 Q. Okay. Who within PG&E would be responsible for
2 distribution of this or similar reports to both field and
3 supervisory management?

4 A. I'm sorry. I have no idea. There's a
5 decision-making process. I really don't know.

6 Q. All right. Plates show corrosion on them when
7 viewing the photos?

8 A. Right.

9 Q. The report, according to the question, indicates
10 "Corrosion? No."

11 Is this an oversight or does it refer to a
12 specific type of corrosion?

13 A. Oh, yeah. I'm sorry. I know exactly what the
14 question is in reference to. It's in reference to
15 Table 1 of page 11, I think. Yeah, yeah.

16 So this is in reference to the location and
17 whether it's in what is considered to be a high-corrosion
18 zone which is really just everything that's within some
19 distance of the coast. So it's far enough away from the
20 coast that it's not considered to be in a high-corrosion
21 zone.

22 Q. Okay.

23 A. Or even a moderate corrosion zone. But I have
24 to say that the corrosion zone may be somewhat
25 inaccurate. But this is not in reference to what
26 corrosion is on the part. This is in reference to what

1 is logged in the ET-GTS in terms of categorizing a
2 location itself.

3 Q. So does that answer that question?

4 A. Yes.

5 MR. NOEL: Great. Anything else?

6 Dr. Martin, thank you. Madam Foreperson is
7 going to have an admonishment for you and then you can
8 get out of here and head back to the lab.

9 GRAND JURY FOREPERSON: Same admonishment just a
10 reminder. You are admonished not to discuss or disclose
11 at any time outside of this jury room the questions that
12 had been asked of you or your answers until authorized by
13 the grand jury or the Court.

14 A violation of these instructions on your part
15 may be the basis for a charge against you of contempt of
16 court. This does not preclude you from discussing your
17 legal rights with your own attorney.

18 Mr. Martin, what I have just said is a warning
19 not to discuss this case with anyone except the Court,
20 your lawyer, or the district attorney.

21 Any questions?

22 THE WITNESS: No. I understand.

23 GRAND JURY FOREPERSON: Thank you for your time
24 today.

25 THE WITNESS: Thank you.

26 [Witness exits the courtroom.]

1 MR. NOEL: The next witness will be (WITNESS
2 #23). He's in the furthest back attorney room.

3 While you're doing that, I will pass these out.

4 [Witness enters the courtroom.]

5 GRAND JURY FOREPERSON: (WITNESS #23), just
6 before you are seated, I need to swear you in. (WITNESS
7 #23), please raise your right hand.

8 (WITNESS #23), do you solemnly swear that the
9 evidence you shall give in this matter pending before the
10 grand jury shall be the truth, the whole truth, and
11 nothing but the truth so help you God?

12 THE WITNESS: I do.

13 GRAND JURY FOREPERSON: Thank you. Have a seat,
14 please.

15 **EXAMINATION**

16 BY MR. NOEL:

17 Q. (WITNESS #23), could you please state your full
18 name spelling your last name for the record.

19 A. (WITNESS #23). Last name is (Redacted
20 spelling.)

21 Q. By whom are you employed, (WITNESS #23)?

22 A. Pacific Gas & Electric.

23 Q. In what capacity?

24 A. Currently I'm a safety specialist.

25 Q. What is a safety specialist?

26 A. A safety specialist -- our technical title is

1 senior electrical field safety specialist for the
2 contractors. So I go out and I observe the work that is
3 being completed by our contractors and insure that they
4 are following all our standards, procedures, and that
5 they are doing the work properly, safely.

6 Q. How long have you been with PG&E?

7 A. This past July would be 15 years.

8 Q. You have in front of you what is marked as
9 Exhibit 537. Do you recognize 537?

10 A. Yes, Sir.

11 Q. What is 537?

12 A. 537 is my job résumé for the position that I am
13 currently in.

14 Q. I want to walk through your résumé a little bit
15 with you. It says you are "seeking a specialist position
16 in safety that will allow me to utilize my personal
17 experience and safety skills."

18 What personal experience do you have with
19 safety?

20 A. Personal experience with safety. Well, starting
21 my career, I mean, at PG&E's apprenticeship you are
22 taught how to properly do things the safe way. I went
23 through with the apprenticeship, became a journeyman in
24 2008. And when I got to the Table Mountain crew, I
25 became -- I was appointed the team safety lead for our
26 crew. And in that role I was in charge of insuring that

1 the crew had all of the proper protective equipment on
2 hand at all times, that our ADD, our first-aid kit, fire
3 extinguishers were all current and operable. And I
4 was -- in that aspect I was also a member of our safety
5 grassroots team for our department.

6 So all of the safety leads from each crew came
7 together once a month to meet, talk about safety issues,
8 safety concerns with the crew that our fellow workers are
9 bringing up and talk about those things, find ways to
10 mitigate the hazards, things that we can do to get around
11 the hazards and make work safer and bring those issues to
12 the leadership and also take those -- whatever we've
13 talked about and whatever we've come up with back to our
14 teams to work.

15 Q. How did you get into safety in the first place?

16 A. Well, it was that role there with -- when I got
17 to Table Mountain crew working for (WITNESS #12), he
18 appointed me as safety lead. And went that route,
19 enjoyed it. And then when I had my accident in 2015 with
20 the assistance of my wife pushing me toward getting off
21 the crew and looking into safety and helping guys in the
22 field being more safe, I was able to convince leadership
23 that we needed a full-time safety chair. And I was
24 elected by my peers to be that person.

25 I served as the safety chair for two years and
26 as a safety chair just insured that all of my safety

1 leads or all the crews were communicating what we talked
2 about, that any of the projects -- safety projects that
3 we were putting together and in putting in the work were
4 completed and a lot of coordination with leadership.

5 And with my role as safety chair I was offered a
6 position that I'm currently at by my old superintendent
7 who is now not with the company any longer.

8 Q. And who would that be?

9 A. Trevor Emmons.

10 Q. You mentioned in passing your accident in 2015.
11 Is that an on-the-job accident?

12 A. Yes, Sir.

13 Q. What happened to you?

14 A. Our crew was -- our crew was tasked for the day
15 to do a bare-hand project working on our 500 kV circuit
16 up on Round Mountain. And that was a three-hour drive
17 for us. It was an early day. We headed up there. I was
18 in a truck on my own.

19 Got to the job site shortly after the crew, and
20 we did our tailboards. Our super was on site, our
21 foreman was on site, all our crew was on site that was
22 doing the work -- that were doing the work.

23 We met together, talked about the hazards of the
24 job, went out and did the job. But when we got to the
25 tower, there was an additional hazard that wasn't
26 identified before we got to it. And the crew, myself,

1 and the three other linemen on the tower -- we talked
2 about it. We paused and talked about what we saw there
3 and how to mitigate it.

4 It was something that we had worked on before in
5 a different aspect, but this one was completely
6 different. Instead of just running through our job site,
7 it ran through our job site, down the tower to a splice,
8 and then back up and out. It's something that we had
9 never seen before. And so we mitigated that hazard the
10 best that we knew how.

11 And unfortunately, it wasn't good enough. I got
12 electrocuted about 8,000 volts. And I bled off that
13 induction five times before I was able to pull myself off
14 and land in the tower.

15 Q. So you were actually climbed up inside the tower
16 when that happened?

17 A. Yes, Sir.

18 Q. Now, it says you were a journeyman lineman 2009
19 through 2015. Before that, you were a United States
20 Marine?

21 A. Yes, Sir.

22 Q. And how long were you a Marine?

23 A. Seven years.

24 Q. What did you do at the Marine Corps?

25 A. I was -- my watch was 6531 Aviation Ordnance.

26 Q. What does that mean?

1 A. BB stacker; loading bombs and guns on airplanes.

2 Q. Okay. So how did you get to PG&E from doing
3 that?

4 A. One can only work so long for \$10 an hour in the
5 airport after getting out of the Marine Corps. You spend
6 all day. I have two uncles and a cousin who were linemen
7 who were pushing me in this direction. And I protested
8 as long as I could. And then coming to PG&E I realized
9 how much I enjoyed it. And I ended up just biting the
10 bullet and coming here.

11 Q. So walk us through your PG&E career.

12 A. In order to get into PG&E, I had to take a job
13 as a gas utility worker in San Francisco. I worked there
14 for two years, became a fieldman before I got my
15 apprentice bid to Chico. I'm from Marysville/Browns
16 Valley area. I grew up here. So I wanted to come back
17 home, be close to my grandmother.

18 And once I took that bid, I got up here to
19 Chico. I was an apprentice linemen, did a three year
20 apprenticeship, journeyed out. And at one point during
21 my apprenticeship I had the option to do work with a
22 transmission crew out of Table Mountain. And I knew that
23 that is exactly when where I wanted to be working on the
24 towers, the big wire, the helicopters, all the fun stuff
25 that PG&E linemen do.

26 And so it took seven years, but I finally got

1 the opportunity to be part of that crew. And by the time
2 I got there all those old guys that I worked with a long
3 time ago were already gone. But I came in to a good
4 crew. Most of the guys on my crew I had come up in the
5 apprenticeship with. So we knew each other and we knew
6 how to work with each other. And, yeah.

7 Does that answer your question?

8 Q. What year did you come to Table Mountain?

9 A. If I were to guess, it would be around 2012.

10 Q. Other than being the safety lead in -- at Table
11 Mountain, what was your job assignment at Table Mountain?

12 A. Lineman on a crew.

13 Q. Okay. At some point were you made a temporary
14 troubleman?

15 A. Yes, I was.

16 Q. How was it that you became a temporary
17 troubleman?

18 A. I can't recall exactly how I was appointed the
19 temporary job. There are two thoughts in my mind, and
20 these are just guessing. I had had an injury -- a slight
21 injury that put me on modified duty where I rolled into
22 this. Either that or I was backfilling for a retired
23 position that hadn't been filled, a retiree that left,
24 and that position hadn't been filled.

25 Q. Do you remember when you became a temporary
26 T-man?

1 A. I don't.

2 Q. Were you given any training to be a T-man?

3 A. I remember going to a class on switching, but I
4 believe that that is a class that all transmission
5 linemen take. And until looking at my -- my class
6 records on my -- on our intranet, I was -- I don't
7 remember taking the course. But it says that I took a
8 course in transmission troublemen line inspections.

9 Q. Do you know when that test was?

10 A. I don't.

11 Q. Class, not test. I'm sorry.

12 A. No, Sir.

13 Q. Who compiles your records?

14 A. I don't know.

15 Q. You don't?

16 A. No.

17 Q. Okay. What was the class that you don't recall
18 taking?

19 A. I can't recall the name.

20 Q. Do you recall the subject matter?

21 A. Not exactly, no.

22 Q. All right. In 2014 were you assigned to assist
23 (WITNESS #1) with doing the detailed ground inspection of
24 the Caribou-Palermo 115 line?

25 A. Yes, Sir.

26 Q. Do you know why you were assigned to assist

1 (WITNESS #1)?

2 A. I don't know the exact. But if I were to -- if
3 I were to guess on the reasoning, it would be because --

4 Q. Okay. Let's not speculate or guess. Nobody
5 told you why?

6 A. Nobody told me why.

7 Q. Okay. You were just assigned to do the
8 inspection with (WITNESS #1)?

9 A. Yes, Sir.

10 Q. In front of you you should have -- and actually,
11 you don't because I left it up on the bench. Thank you.

12 Exhibit 167. Do you see Exhibit 167?

13 A. Yes, Sir.

14 Q. Do you recognize Exhibit 167?

15 A. Yes, I do.

16 Q. Now, we're looking at the cover page of 167. I
17 want to move to the second page of 167.

18 Okay. Do you recognize the second page?

19 A. Yes.

20 Q. What is the second page?

21 A. It's the line -- transmission line inspection
22 data sheet.

23 Q. How is it that you recognize page 2 from the
24 line inspection data sheet in 167?

25 A. This sheet is where I would place any issues
26 that were found on the line, the structure number, and

1 what the issue was on it as well as -- this sheet is
2 signed by myself and whoever else assisted me with -- I
3 assisted or they assisted me with the inspection and then
4 signed off by the supervisor, myself, and --

5 Q. Okay. Up on the top under "Inspection" -- under
6 "Inspector name," it says "(WITNESS #23)." Do you see
7 that?

8 A. Yes, Sir.

9 Q. Is that you?

10 A. Yep.

11 Q. Is that your writing?

12 A. That is my writing.

13 Q. Okay. And then "Date inspection completed."
14 Part of the date is cut off but something 28/14. Do you
15 see that?

16 A. Yes, Sir.

17 Q. Is that your writing?

18 A. Yes, Sir.

19 Q. Miles inspected 62 miles. Is that your writing?

20 A. Yes, Sir.

21 Q. And number of structures inspected 446. Your
22 writing?

23 A. Yes, Sir.

24 Q. Now, next to where it says "Inspection findings
25 data" it's written "completed on 8/18/14 with something
26 and (WITNESS #1) 8/28/14."

1 Do you see that?

2 A. Yes, Sir.

3 Q. Is that your writing?

4 A. "Completed by --" or "completed on 8/28/14" and
5 then my signature was the 3rd. That's my writing.

6 Q. Okay. All right. And then obviously you didn't
7 write (WITNESS #1)'s.

8 A. No.

9 Q. How about the notifications that are listed in
10 there?

11 A. That is my writing all except for the
12 notification numbers at the end.

13 Q. Okay. And there's -- on the first line to the
14 right of 26215 it looks like a different writing in
15 parentheses. It says "Investigate." Do you see that?

16 A. Yes, Sir.

17 Q. Is that your writing?

18 A. That is not my writing?

19 Q. Do you know what that means?

20 A. I don't.

21 Q. All right. So let's talk about the inspection
22 itself. What was your job in terms of the inspection?

23 A. To go to each structure and inspect it.

24 Q. Each and every structure on the Caribou-Palermo
25 115?

26 A. Well, in this inspection (WITNESS #1) and myself

1 split the inspection in half.

2 Q. Okay. Why did you split it in half?

3 A. Four hundred forty-six structures to inspect is
4 a lot. And half of that -- half of that line is in very
5 rough terrain. And so that would be the section that I
6 took. And given (WITNESS #1)'s less ability to move he
7 took the structures in the lower half.

8 Q. Are you trying to very nicely say that (WITNESS
9 #1) was getting old and couldn't get to a lot of the
10 structures?

11 A. In a nice way, yes.

12 Q. Okay. So that -- your assignment was to do the
13 structures that he couldn't get to; correct?

14 A. Yes, Sir.

15 Q. Okay. All right. And you took the difficult
16 portion of the line?

17 A. Yes, Sir.

18 Q. And which portion of the line is the more
19 difficult?

20 A. I am not sure on the number, but it would be the
21 portion pretty much where the line comes up out of the
22 hole where Poe Powerhouse is and comes over Highway 70
23 and starts heading toward Pulga and up toward Caribou.

24 Q. Okay. All right. Tell us how you did a
25 detailed ground inspection of a transmission line or your
26 understanding of what you were to do?

1 A. Okay. So depending on the terrain and the
2 accessibility, I would come up to the structure. And I
3 started with the footings, look at the tower as a whole,
4 and I'm looking for anything out of place; bent steel,
5 anything not where it's supposed to be.

6 Head up to the -- the tower portion where the
7 lines are actually connected to the tower, looking at
8 insulators on one phase, looking at insulators on one
9 phase, connections, and insuring that everything is there
10 and everything is intact and moving to the next phase
11 doing the same things across the tower.

12 Q. How much attention were you paying to the
13 cold-end attachment hardware?

14 A. Can you repeat the question.

15 Q. How much attention would you pay to cold-end
16 attachment hardware?

17 A. I would look at it to make sure that it was
18 there and see it.

19 Q. Okay. Were you ever told by anyone to look at
20 cold-end attachment hardware specifically during
21 inspections or patrols?

22 A. I don't recall.

23 Q. Were you ever given any training in cold-end
24 attachment hardware for inspections and patrols?

25 A. I don't recall.

26 Q. Now, when you were a lineman, did you change

1 insulator strings?

2 A. Yes, Sir.

3 Q. Did you change insulator strings on the
4 Caribou-Palermo Line?

5 A. Yes, Sir.

6 Q. So you knew how an insulator string was supposed
7 to -- how the cold-end attachment hardware was supposed
8 to look when it was initially installed; correct?

9 A. Yes, Sir.

10 Q. All right. I'm going to walk through -- we have
11 up on the board -- this is page 17 of the transmission
12 line object list of your 2014 report. And up at the top
13 right is your name and a date. Is that correct?

14 A. Yes, Sir.

15 Q. Now, some of the pages have your name, some of
16 the pages have (WITNESS #1)'s name; correct?

17 A. Yes, Sir.

18 Q. What does that tell us?

19 A. That (WITNESS #1) inspected the structures on
20 that page.

21 Q. Okay. So if your name is on the page, you
22 inspected those structures and if (WITNESS #1)'s name is
23 on the page, he inspected them; is that correct?

24 A. Yes, Sir.

25 Q. So that is how we can tell your work apart?

26 A. Yes, Sir.

1 Q. All right. So go through us briefly the
2 mechanics -- go through for us briefly the mechanics of
3 doing a detailed ground inspection for you.

4 A. Other than my method for looking at a structure
5 that I'm looking at?

6 Q. Yep. And how you --

7 A. Okay. So for me obviously that area is very
8 remote and the terrain is pretty rough. Most of this was
9 completed either by hiking in or riding in on a Razor or
10 a Ranger off-road vehicle.

11 So this form, this (indicating) booklet did not
12 come with me on this. All of my findings would go into
13 my notebook that I carry with me.

14 When I looked at a structure if there was
15 nothing wrong with it, it didn't get wrote down on my
16 notebook. If I did find issues in the field, it got
17 wrote in my notebook. So the only thing that I came off
18 the hill with in my notebook were issues that I found on
19 the structures; structure name or number and the issue.

20 MR. NOEL: Obviously, we're not going to finish.
21 We got a little late start with (WITNESS #23). We're not
22 going to finish him reasonably in the next 10 or
23 15 minutes. So it's just about 12 o'clock noon and time
24 for lunch.

25 GRAND JURY FOREPERSON: Okay.

26 MR. NOEL: If you'd like to take a break at this

1 point.

2 GRAND JURY FOREPERSON: Ready for a break?

3 Okay. Yes.

4 Okay. (WITNESS #23), I need to read you an
5 admonishment before we do go to lunch.

6 You are admonished not to discuss or disclose at
7 any time outside of this jury room the questions that
8 have been asked of you or your answers until authorized
9 by the grand jury or the Court. A violation of these
10 instructions on your part may be the basis for a charge
11 against you of contempt of court. This does not preclude
12 you from discussing your legal rights with your own
13 attorney.

14 Mr. (WITNESS #23), what I have just said is a
15 warning not to discuss this case with anyone except the
16 Court, your lawyer, or the district attorney.

17 Do you have any questions?

18 THE WITNESS: No, Ma'am.

19 GRAND JURY FOREPERSON: Okay. Thank you.

20 MR. NOEL: All right. Be back 1:30?

21 GRAND JURY FOREPERSON: Yes.

22 MR. NOEL: All right. Thank you.

23 [Whereupon the luncheon recess is taken
24 from 11:56 a.m. until 1:30 p.m.]

25 --oOo--
26

1 SEPTEMBER 10, 2019

2 AFTERNOON SESSION

3 (Confidential Grand Jury Hearing Proceedings)

4
5 MR. NOEL: We are on the record. We're back.
6 It's 1:30.

7 (PROCEEDING OMITTED.)

8
9 [Matter adjourned at 1:31 p.m.]

10 --oOo--
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COURT REPORTER'S CERTIFICATE

This is to certify that I, Lisa McDermid Welch, a Certified Shorthand Reporter of the State of California was present at the time and place the foregoing grand jury proceedings were had and taken in the within matter; and that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings; and afterwards caused my said shorthand writing to be transcribed into typewriting; and the foregoing pages, beginning at the top of Page 1 to and including Page 92 hereof, constitute a full, true, accurate, and complete record of the proceedings.

DATED: This 6th day of June, 2022.

Lisa McDermid Welch

LISA MCDERMID WELCH, CSR, RPR
CSR LICENSE NO. 10928

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

BCSC-2019-GJ-01

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REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, OCTOBER 1, 2019

VOLUME 20

OROVILLE, BUTTE COUNTY, CALIFORNIA

JENNIFER L. HUNT, CSR 10735, OFFICIAL COURT REPORTER

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(Present) Marc Noel, Deputy District Attorney

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DEPARTMENT OF JUSTICE

OFFICE OF THE ATTORNEY

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(Not present) Nicholas M. Fogg, Deputy Attorney General

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OROVILLE, BUTTE COUNTY, CALIFORNIA

TUESDAY, OCTOBER 1, 2019

8:30 a.m.

(Confidential Grand Jury Proceedings)

-oOo-

[ROLL CALL OMITTED.]

[DISCUSSION OMITTED.]

GRAND JURY FOREPERSON: (WITNESS #23), if you'd
raise your right hand, please. I need to swear you in
again.

(WITNESS #23)
having been called as a witness in
the matter now pending, having been first
duly sworn, testifies as follows:

THE WITNESS: Morning. I do.

GRAND JURY FOREPERSON: Thank you. Have a seat
please.

EXAMINATION

BY MR. NOEL

Q. Welcome back. I think when we left off we were
just starting to talk about the 2014 detailed inspection
of the Caribou-Palermo. In the interim, we've talked and

1 you said, you've told me, indicated to me, that you
2 realize that there was something that you said the last
3 time you wanted to correct?

4 A. Yes, sir.

5 Q. What is that?

6 A. So in looking at our map app. that shows our
7 circuits on the map, I remembered the location area where
8 (WITNESS #1) and I separated the inspections.

9 Q. Okay.

10 A. I recall inspecting towers around Big Bend
11 Substation. And so being in that area, I remember being
12 in that area with (WITNESS #1) and looking at towers. So
13 it's -- that would be the area where he and I did
14 separate our inspections.

15 Q. Okay.

16 A. He went south and I went north from there.

17 Q. All right. Now, you have the packet in front
18 of you, the exhibit, probably flip through the top of
19 that to the big packet which is 167, where we left off.
20 And we left off, we were on page 17 of the Transmission
21 Line Object List.

22 A. Okay.

23 Q. All right. You found that?

24 A. Yes, sir.

25 Q. All right. Remind us again how to read the
26 Transmission Line Object List.

1 A. Okay. So top to bottom?

2 Q. Yes, please.

3 A. Inspector name would be who inspected that, the
4 structures on that sheet. The date that they were
5 inspected.

6 Look down the column, or actually at the top
7 here, I can't remember what, what the 3, 3190 -- I
8 believe that that's a number for the circuit. The
9 circuit name. The job number, which the inspection job
10 number, the 41980167.

11 And then off that column, on the left-hand
12 side, would be separating each structure. Its SAP ID
13 number, which is the number that structure has in the
14 PG&E system, and then its coordinates. Separated, each
15 one separated horizontally by whatever your findings
16 would be, whether it would be you completed the
17 inspection of that tower, found no problems, found
18 problems, new findings, inspected preconditions. And
19 then you would put in your notes whatever it was that you
20 found.

21 Q. Okay. Going back to the top.

22 A. Yes, sir.

23 Q. The order number that you identified up there,
24 the order 41980167?

25 A. Uh-huh.

26 Q. What is that number?

1 A. I believe that that's the job number. So let's
2 say I get, I get a job with the crew to go out and fix
3 the, replace a pole. We're given an order number to
4 charge to, our time to. That's the order number. This
5 would be the order number for that inspection itself.

6 Q. Okay. And that's the same number that you see
7 on the data sheet up at the top left column?

8 A. Uh-huh.

9 Q. Right here?

10 A. Yes, sir.

11 Q. And also on the front page, this number right
12 here?

13 A. Yep.

14 Q. Why is that number, why at the time as a
15 temporary troubleman is that number relevant to you?

16 A. It would be the time that I charged my hours to
17 when completing inspections.

18 Q. Okay. Explain, please.

19 A. So when I would go out and do any kind of work
20 on that inspection, whether it be go out and actually
21 doing the inspection, staying in the yard and actually
22 doing paperwork, I would charge that time, my time, to
23 that, whether it would be a couple hours or the whole
24 day.

25 Q. So that's a unique code that goes to the
26 inspection of the Caribou-Palermo?

1 A. Yes.

2 Q. And does that code stay, always stay the same
3 for the Caribou-Palermo or does it change year to year?

4 A. I don't know.

5 Q. All right. So going back to page 17, your
6 name's on the top; correct?

7 A. Yes, sir.

8 Q. So that what does that indicate?

9 A. That I completed the inspection.

10 Q. Or at least the inspection on this page?

11 A. On this page.

12 Q. And then in the left-hand column you said that
13 the numbers denote the GPS location of each tower; is
14 that correct?

15 A. Yes, sir.

16 Q. So you did the, you inspected the towers listed
17 on page 17?

18 A. Yes, sir.

19 Q. Go on to page 18. And did you inspect the
20 towers listed on page 18?

21 A. Yes, sir.

22 Q. Now, on the right-hand column there are some
23 numbers. And looked like they're handwritten in. Can
24 you explain those numbers to us?

25 A. Okay. So these numbers are height measurements
26 for the conductor from our closest object within that

1 mile.

2 The footage is 48, so we'll go with, what is
3 it, 000 over 06. That structure, believed to be within
4 that mile marker of that circuit, the closest point was
5 48 feet from the ground, ground to the belly of the
6 conductor.

7 And then the 72 degrees is the temperature of
8 that, that that was taken. And that matters because when
9 it gets warmer, that wire sags more; when it gets cooler,
10 that wire tightens up and your distance between the
11 ground and the conductor is greater.

12 Q. Why in 2014 were you taking these measurements?

13 A. Was told to.

14 Q. By whom?

15 A. I don't recall. I don't recall who told me to.
16 I just know that when I did the inspection and thought I
17 was complete, I was told to go back out because I needed
18 to take measurements.

19 Q. So the measurements weren't taken at the same
20 time that the inspection was done?

21 A. No, they were not.

22 Q. Explain to us how that happened, please.

23 A. The process of doing them or me being told?

24 Q. You being told.

25 A. Me being told. To the best of my recollection
26 is that I completed the paperwork, went to go turn it in,

1 and I was told to go back and that I needed to have these
2 measurements done for NERC.

3 Q. Had you received any training in measuring line
4 clearances?

5 A. I believe one of the troublemen helped me out,
6 figure out how to use the gun, which is vary easy to use.

7 Q. Do you recall which one?

8 A. I don't.

9 Q. You mentioned a gun. Can you explain to us
10 what this gun is?

11 A. So this gun uses a laser, I believe laser, to
12 -- that you shoot to the conductor and then you shoot to
13 the ground below the conductor, and it gives you a
14 measurement between the two objects.

15 Q. So you use that to measure the line clearance
16 on the conductor?

17 A. Yes, sir.

18 Q. How about the other, the temperature? Well,
19 the temperature. We'll get to the other.

20 A. Temperature is given on the gun at the time
21 that you do it. So you would measure, measure, take your
22 reading, and then note the temperature that it was giving
23 you.

24 Q. Okay. How much instruction were you given in
25 what you needed to do in terms of the line measurements?

26 A. I don't recall. All I recall is that I was

1 told to go back out there and get measurements. I was
2 given a gun. And I can't recall who it was that trained
3 me. It could have been (WITNESS #1). It could have been
4 one of the other troublemen.

5 Q. Okay. So after you finished your inspection is
6 when you found out you needed to do the line
7 measurements, then you went out and did the line
8 measurements all at one time --

9 A. Yes.

10 Q. -- is that correct?

11 That first time you went out and did, did you
12 do the line measurements correctly -- or did you record
13 the line measurements correctly?

14 A. Apparently I did not, because I was told that I
15 needed to have the time as well.

16 Q. So before you went out, you weren't told to
17 record the time?

18 A. I don't recall.

19 Q. But you didn't record the time?

20 A. I didn't record the time.

21 Q. So how did you get the time into the report?

22 A. So I played around with the Internet, found
23 historical weather for the day on weatherunderground dot
24 com. And I went through each location, their general
25 area, and whatever the time it was -- or whatever
26 temperature it was at that time I marked down that time.

1 So it's kind of an approximate time, time to that
2 temperature for that location.

3 Q. Okay. I want to make sure that we got this
4 right. So you go out first and you do the inspection and
5 you fill out the paperwork for the inspection; for
6 instance, the completed, no new problems, or preexisting
7 conditions checked?

8 A. Uh-huh.

9 Q. All of that stuff was done first; correct?

10 A. Yes.

11 Q. Then later you came back and added the line
12 clearance measurements and temperature; is that correct?

13 A. Yes.

14 Q. And then still later you came back and added
15 the times?

16 A. Yes.

17 Q. And the times are just an approximation?

18 A. Yes.

19 Q. All right.

20 Okay. Let's move on. Page 19.

21 Did you inspect the towers listed on page 19?

22 A. Yes.

23 Q. Page 20?

24 A. Yes.

25 Q. Did you inspect the towers marked on page 20?

26 A. Yes, sir.

1 Q. All right. Page 21. Did you inspect the
2 towers on page 21?

3 A. Yes, sir.

4 Q. Now, there's -- what's the difference between
5 page 20 and page 21 -- or all the pages that we've talked
6 to up to now and page 21?

7 A. I -- different miles?

8 Q. Nope.

9 A. I don't know. I can't tell what date that is.

10 Q. Can't tell what?

11 A. Whether it's the 13th or 14th that I wrote
12 there.

13 Q. On page 20?

14 A. Uh-huh.

15 Q. You're talking about up here in the right-hand
16 corner?

17 A. Yes, sir.

18 Q. Looks like either a 14 and then a 3 written
19 over the top, or a 13 and a 4 written over the top;
20 right?

21 A. Yes.

22 Q. That's what we want to talk about. So very
23 clearly on page 21 that date changes to 8/13; right?

24 A. Or 8/14.

25 Q. No, on page 21.

26 A. On page 21, yes. Yes.

1 Q. What's the significance of the date that's
2 handwritten in the top right corner?

3 A. Well, if you were to read this, it would mean
4 that that was the date it was inspected. But it could be
5 the date that I wrote my inspection down from my log book
6 to this.

7 Q. Okay. So if I were someone that was reviewing
8 this report, would it be safe for me to assume, based
9 upon all this information, that you inspected these
10 towers on 8/13 and that as part of that on 8/13 you took
11 the line measurements, the temperature, and recorded the
12 time?

13 A. To assume, yes.

14 Q. Let's move on quickly, page 22. Are those
15 towers that you inspected?

16 A. Yes, sir.

17 Q. Those are your line measurements?

18 A. Yes, sir.

19 Q. And these again are dated 8/13?

20 A. Yes, sir.

21 Q. Page 23?

22 A. Yes, sir.

23 Q. You inspected those towers?

24 A. Yes, sir.

25 Q. 24, inspect those towers?

26 A. Yes.

1 Q. 25?
2 A. Yes.
3 Q. 26?
4 A. Yes.
5 Q. 27?
6 A. Yes.
7 Q. Did you inspect those towers?
8 28?
9 A. Yes.
10 Q. Okay. You inspected those towers?
11 A. Yes.
12 Q. 29, you inspected those towers?
13 A. Yes, sir.
14 Q. Page 30, did you inspect those towers?
15 A. Yes, sir.
16 Q. Page 31, did you inspect those towers?
17 A. Yes.
18 Q. Page 32?
19 A. Yes.
20 Q. Inspected those towers?
21 A. Yep.
22 Q. All right. Page 33. Did you inspect those
23 towers?
24 A. Yes, sir.
25 Q. But now the date has changed once again. On
26 what date did you inspect the towers listed on page 33?

1 A. It says it's 8/7/14.

2 Q. Okay. So the date inspected listed says 8/7?

3 A. Yes, sir.

4 Q. But that doesn't necessarily mean that they

5 were actually inspected on 8/7?

6 A. No, sir.

7 Q. All right. Page 34, did you inspect those

8 towers?

9 A. Yes, sir.

10 Q. 35, did you inspect those towers?

11 A. Yes, sir.

12 Q. And these are all on 8, listed as 8/7 as the

13 date inspected?

14 A. Uh-huh. Yes.

15 Q. Page 36, did you inspect those towers?

16 A. Yes, sir.

17 Q. 37, did you inspect those towers?

18 A. Yes, sir.

19 Q. Now, you notice there's no page 38. Do you

20 have any idea what happened to page 38?

21 A. I do not.

22 Q. What do you do with the reports when you

23 actually finish them, they're completely all done,

24 they're signed off on?

25 A. I turn them in.

26 Q. Do you keep copies of them?

1 A. No.

2 Q. All right. Do you know where the copies are

3 kept -- or where the original is kept?

4 A. I have no idea, no.

5 Q. All right. Moving on, page 39. Did you

6 inspect those towers?

7 A. Yes, sir.

8 Q. And we're still on the date inspected of August

9 7th?

10 A. Yes.

11 Q. Page 40, did you inspect those towers?

12 A. Yes, sir.

13 Q. Page 41?

14 A. Yes.

15 Q. Page 42, did you inspect those towers?

16 A. Yes, sir.

17 Q. Page 43?

18 A. Yes.

19 Q. Page 44, did you inspect those towers?

20 A. Yes, sir.

21 Q. Page 45, did you inspect those towers?

22 A. Yes, sir.

23 Q. Page 46, did you inspect those towers?

24 A. Yes, sir.

25 Q. Page 47, did you inspect those towers?

26 A. Yes, sir.

1 Q. All right. Page 48, did you inspect those
2 towers?
3 A. Yes, sir.
4 Q. Now, page 55, did you inspect the towers listed
5 on page 55?
6 A. I did not.
7 Q. You did not?
8 A. (Shakes head.)
9 Q. Okay. Who inspected those towers?
10 A. (WITNESS #1).
11 Q. Why is your name at the top of the page?
12 A. Page 49?
13 Q. No, 55.
14 A. Oh, 55. I'm sorry.
15 Q. Right. Okay.
16 A. I was going --
17 Q. I'm sorry, I forgot, you have every page.
18 A. I have every page.
19 Q. We're just skipping ahead to the pages with
20 your name on it. So, so 49 it goes to (WITNESS #1), then
21 you appeared again in 55?
22 A. Yes.
23 Q. All right. And what date is indicated on that
24 page?
25 A. 8/6/14.
26 Q. All right. So we talked about and you talked a

1 little bit earlier, for each one of the towers there's a
2 GPS location that's listed on the sheet; correct:

3 A. Uh-huh.

4 Q. Remember, you have to answer so she can --

5 A. Yes, sir. Sorry.

6 Q. So every one of the towers can be plotted on a
7 map using their GPS; is that correct?

8 A. Yes.

9 Q. And then we have the dates that are assigned.
10 And you said after your testimony, prior testimony, you
11 went back and looked at it and you were able to determine
12 where you and (WITNESS #1) kind of separate?

13 A. Yes, sir.

14

15 (Grand Jury Exhibit 538 was marked for identification.)

16

17 Q. Up in front of you is a map marked as 538. Go
18 ahead and look at it. And give you a little bit of time
19 on that.

20 Do you recognize the area depicted in the map?

21 A. Yes, sir.

22 Q. What is depicted in the map?

23 A. This is the Feather River Canyon with the
24 circuit marked certain GPS locations and certain dates.

25 Q. Okay. And you can go ahead back with 167. And
26 do the dates that are, that are marked on here and the

1 towers numbers coincide with the dates in the, in 167,
2 the detailed inspection report?

3 A. 167, I'm confused what you're asking.

4 Q. Right.

5 A. Structure 167?

6 Q. No, no, no. The Exhibit No. 167. I'm just
7 referring to the exhibits.

8 A. Okay. Copy that.

9 Q. For instance, you can look in there and see, on
10 8/14 did you inspect 000 over 001? Make sure that the
11 rest of these dates are correct.

12 A. Okay. So they seem to match what's in here
13 except for colon 30 over 246 doesn't have a date on it.

14 Q. So let's move on to 539, which is a little bit
15 more of a close-up.

16 Let me first back up. Where is Big Bend on
17 538?

18 A. Down in this area here.

19 Q. Okay. So right below what's marked as 128,
20 130, right in there?

21 A. I would have to look at a circuit map and look
22 at the substation to know exactly --

23 Q. Okay.

24 A. -- where it is.

25 Q. Just the general area?

26 A. Down below the lake.

1 Q. You said earlier that you and (WITNESS #1)
2 separated around Big Bend, and then you worked the upper
3 half of the line --
4 A. Yes.
5 Q. -- is that correct?
6 A. Yes, sir.
7 Q. So it looks plotted out that, for the most
8 part, you started at the bottom and worked your way
9 upstream to Caribou; is that correct?
10 A. Yes, sir.
11 Q. Okay. So let's move on to 539.
12 A. Can I take a break real quick?
13 Q. You need a break? Sure.
14 A. Thank you. I will be right back.
15 (Break taken.)
16 GRAND JURY FOREPERSON: (WITNESS #23) is back.
17 We need to proceed, please.
18 Q. (By MR. NOEL) Everyone's back in their seats
19 after a short break.
20 All right. Moving on to 539. Trying to chart
21 this progress according to your report day by day. This,
22 we refer to page 55; is that correct?
23 A. Yes, part of -- yes. Yes.
24 Q. Okay. So on August 6th, 2014, where did you
25 start? Where did you start your inspection?
26 A. I don't recall.

1 Q. Okay. According to the report, where did you,
2 did your inspection start?

3 A. It's hard to say because, I mean, I start work
4 at 6:30 in the morning.

5 Q. Okay.

6 A. 8:30 the report says I was there. But the
7 times come off the Internet.

8 Q. Okay. That's one of the next things I was
9 going to get to.

10 So the report says that you were at structure
11 number 037 over 299 at 8:30 a.m. on August 6th, but
12 that's not necessarily correct; right?

13 A. No, sir.

14 Q. All right. But we know from page 55 that on
15 August 6th you inspected between 036/292 and 037/299; is
16 that right?

17 A. If you're following the record, yes.

18 Q. Okay. But you look at me and kind of don't
19 sound convinced that the record's correct?

20 A. Well, only because I didn't -- the measurements
21 and the times are different.

22 Q. Okay. But what about the dates?

23 A. I don't recall when I put the dates on here,
24 whether it be the day that I did the inspection or
25 whether it was the day I actually sat down for a day's
26 worth of work on paperwork.

1 Q. Is there a way to actually chart what days you
2 actually were out in the field doing the inspections?
3 Are there records?

4 A. Timecards.

5 Q. How would timecards show where you were?

6 A. My timecards have all of the job numbers on
7 them, what I charge my time to.

8 Q. Okay. You're talking about that number we
9 talked about earlier, the 04980 -- 419, I'm sorry, 80167
10 number; correct?

11 A. Yes, sir.

12 Q. All right. So the time that you spent on this
13 inspection would have all gone onto your timecard for
14 those days; is that correct?

15 A. Can you repeat that? I'm sorry.

16 Q. The time that you spent doing this inspection
17 would have reflected on your timecard for that day?

18 A. If my memory serves me right, yes.

19

20 (Grand Jury Exhibit 540 was marked for identification.)

21

22 Q. Okay. All right. Let's move on now to 540.

23 Now, 540 we're talking about towers inspected
24 on August 7th, according to the report; correct?

25 A. Yes, sir.

26 Q. And, again, the times are not correct; right?

1 A. The times were taken off the Internet.

2 Q. Okay. But is it safe to assume, based upon the
3 paperwork, that on August 7th, 2014, you started at tower
4 number 030 over 246 and ended your day at tower number
5 015 over 123?

6 A. That was five years ago; I don't recall what I
7 did on the 7th.

8 Q. Okay. But I'm talking about according to your
9 report that that's what you did; correct?

10 A. Somebody looking from the outside at this
11 report would assume that that's what happened, yes.

12

13 (Grand Jury Exhibit 541 was marked for identification.)

14

15 Q. And now 541, now we're looking at August 13th.
16 And this is, according to the report, it would appear
17 that you started at 015/122, which is one tower up from
18 where you ended the previous session, and took it all the
19 way up to 0003 over 022? Is that a correct reading of
20 your report, or what the report states?

21 A. Yes, sir.

22

23 (Grand Jury Exhibit 542 was marked for identification.)

24

25 Q. And then finally, on August 14th. And slide --
26 or Exhibit No. 542 depicts the towers, or the areas that

1 were inspected, according to the report, on August 14th?

2 A. Yes.

3 Q. Besides the times and the dates not actually
4 being indicative of when something was done, are there
5 other issues with your report that you're aware of?

6 A. Not that I recall, no.

7 Q. Okay. On the, each page -- at the top of each
8 page of the Transmission Line Object is the inspector
9 name; correct?

10 A. Yes, sir.

11 Q. And we talked about it, that that indicates
12 that that's the inspector who inspected the towers listed
13 on that page; is that correct?

14 A. Yes, sir.

15 Q. And back on the Transmission Line Data Sheet,
16 where it's signed off, it's signed by you and (WITNESS
17 #1). And that would indicate that the two of you did the
18 inspection and found the problems; correct?

19 A. Yes, sir.

20 Q. Were there other personnel involved in the 2014
21 detailed inspection?

22 A. Yes.

23 Q. And who was that?

24 A. (WITNESS #14).

25 Q. Who is (WITNESS #14)?

26 A. (WITNESS #14) is a fellow lineman who I asked

1 to assist me in a big part of the inspection.

2 Q. Why did you ask (WITNESS #14) to assist you?

3 A. We had a good amount of towers that are
4 inaccessible by foot, and we were going to utilize a
5 helicopter to inspect those towers. But for one person
6 to do it, it would be a big task, so I asked for his
7 help.

8 Q. Was it normal to use a helicopter to do a
9 detailed inspection of a transmission line?

10 A. Not that I recall, sir.

11 Q. Did you have to seek permission to do so?

12 A. I don't recall asking for permission, but I
13 would assume so, being that a helicopter is expensive.

14 Q. Right. Who was your boss at the time?

15 A. (WITNESS #12) was my boss and, my best
16 recollection, (EMPLOYEE #16) was filling in for him.

17 Q. So if you were going to get a helicopter under
18 those unusual circumstances, would it have been necessary
19 for you to get the approval of (EMPLOYEE #16)?

20 A. Yes, sir.

21

22 (Grand Jury Exhibit 543 was marked for identification.)

23

24 Q. Okay. On, go on to 543. And direct your
25 attention to 543. Pull that up in there.

26 A. It's after 42; right?

1 Q. I put it together, so that is not something you
2 can assume.

3 All right. Do you see number 543?

4 A. Yes, sir.

5 Q. Do you recognize number 543?

6 A. I do not.

7 Q. Okay. Can you please read 543 for me?

8 A. "From --"

9 Q. No, not out loud. You can just read it to
10 yourself.

11 A. Okay.

12 Q. Just I want to ask you some questions about it.

13 A. Okay.

14 Q. Who is (WITNESS #21)?

15 A. (WITNESS #21) is the clerk at Table Mountain
16 Substation, line clerk.

17 Q. And who is (EMPLOYEE #16)?

18 A. (EMPLOYEE #16) is a troubleman out of Table
19 Mountain who was temping for (WITNESS #12).

20 Q. So (EMPLOYEE #16) was your temporary boss at
21 the time of the Caribou-Palermo inspection; is that
22 correct?

23 A. Yes, sir.

24 Q. So who is (WITNESS #1)?

25 A. (WITNESS #1), otherwise known as "(WITNESS
26 #1)."

1 Q. That's what I wanted to get; we're talking
2 about the same guy.
3 (WITNESS #23), that's you?
4 A. That's me.
5 Q. (WITNESS #19)?
6 A. A lineman on the crew.
7 Q. So this looks like an email from (WITNESS #21)
8 to (EMPLOYEE #16) that's CC'd to you; is that correct?
9 A. That's what it looks like, yes.
10 Q. About using the helicopter for the
11 Caribou-Palermo; is that correct?
12 A. Yes, sir.
13 Q. And then up above it is another email to
14 (WITNESS #12). You say (WITNESS #12) is the big boss.
15 He was the guy in charge; right?
16 A. Yes, sir.
17 Q. Okay. So it's talking about -- well -- well,
18 can you read us and explain to us the email starting
19 with, "Hi, (EMPLOYEE #16)."
20 A. "Hi, (EMPLOYEE #16). (WITNESS #1) and --
21 (WITNESS #1) will fly one southern air patrol due in
22 August when we have scheduled maintenance using
23 helicopters on August 26th and 27th, 2014. This will be
24 more cost effective than having (WITNESS #10) and
25 (WITNESS #11)," two other troublemen, "doing it since we
26 will be working in the general vicinity and can knock

1 this out in a very short time, along with segments of the
2 Caribou-Palermo line that are inaccessible by foot."

3 Q. So is it safe to assume that you would have
4 been flying the Caribou-Palermo on the 26th or 27th?

5 A. Yes, sir.

6
7 (Grand Jury Exhibit 544 was marked for identification.)
8

9 Q. All right. Now I want to move on to 544. Do
10 you see Exhibit 544?

11 A. Yes.

12 Q. Do you recognize Exhibit 544?

13 A. I do.

14 Q. What is Exhibit 544?

15 A. 544 is a helicopter tailboard that we're
16 required to complete when we're doing helicopter work.

17 Q. What is this a tailboard for?

18 A. This tailboard is for crew work that was
19 completed on --

20 Q. You can go ahead and stand up.

21 A. -- looks like 8/27 to me.

22 Q. You can stand up and use the board to stretch
23 out, believe me.

24 So why don't you walk us through this form,
25 tell us what it is.

26 A. Okay. So the tailboard form basically walks us

1 through a brief. The work location. This would be -- I
2 can't read that.

3 Q. Always a little difficult. Can you read it on
4 the printed copy, on the actual exhibit?

5 A. I can't read the road name. The helicopter
6 vendor is A&P Helicopters. And circuit number is
7 Caribou-Palermo 115 kV. LZ coordinator is (EMPLOYEE
8 #15), who is our foreman. Person in charge, on the right
9 side here, is the foreman (EMPLOYEE #15). First line
10 supervisor, (EMPLOYEE #16). The job number, so the work
11 that we were completed -- completing that day on the
12 Caribou-Palermo, the order number 31074797. Tailboard at
13 8:00 o'clock in the morning on the 27th.

14 Q. Okay. This section down below, crew members
15 and assignments, can you explain that for us?

16 A. Crew members, this is where we sign saying that
17 we were at the tailboard. (EMPLOYEE #15), foreman.
18 Person in charge, myself. (EMPLOYEE #13), fellow
19 lineman. (REDACTED), an apprentice on loan to us.
20 (EMPLOYEE #16), a fellow lineman. Looks like Jordan, who
21 was an apprentice on loan to us. I cannot read the last.
22 I know the bottom one looks, I believe that's (WITNESS
23 #1) right here. Nope. Yeah.

24 Q. (WITNESS #1) or (WITNESS #14)?

25 A. (WITNESS #14).

26 Q. (WITNESS #14)?

1 A. And I can't read that last one. This is the
2 pilot and the field guys.

3 Q. Okay. So inside this little box on the right,
4 the pilot?

5 A. Clayton was the pilot. And I can't remember
6 who, so many field guys. Looks like (WITNESS #12),
7 (WITNESS #12). I can't tell.

8 Q. Okay. Okay. So do you know what you were
9 doing on the Caribou-Palermo on that day?

10 A. That was a long time ago, and I've done so much
11 helicopter work that I can't recall what exactly we were
12 doing on that line.

13 Q. Okay. Is this when you were finishing the
14 inspection?

15 A. This tailboard has nothing to do with our
16 inspection portion of it.

17 Q. Okay. How can you tell that?

18 A. The order number, all the crew members. To the
19 best of my recollection, (WITNESS #14) and I and the
20 pilot were the only ones involved in the inspection with
21 a helicopter.

22 Q. If this tailboard conference had to do with the
23 inspection of the Caribou-Palermo, what would be written
24 in for the job number?

25 A. We would write in the order number at the top
26 of the inspection.

1 Q. That's the 8941980167 number we keep talking
2 about?

3 A. Yes, sir.

4 Q. All right. Move on, now I want to switch gears
5 again and go back to --

6 A. Okay. While we're switching gears, can I take
7 a break?

8 Q. Sure.

9 THE WITNESS: Thank you.

10 MR. NOEL: Madam Foreperson, I guess it's up to
11 you.

12 THE WITNESS: Can I?

13 GRAND JURY FOREPERSON: Yes.

14 THE WITNESS: Thank you.

15 (Break taken.)

16 MR. NOEL: All right. Ready?

17 THE WITNESS: Yes, sir.

18 I would like to make a correction to something
19 I said earlier.

20 GRAND JURY FOREPERSON: Okay. All jurors are
21 present. (WITNESS #23) is back.

22 Q. (By MR. NOEL) All right. As you were coming
23 in you said you'd like to correct something you stated
24 earlier?

25 A. So in stating that on these sheets I'm the one
26 that completed the inspections on that page, (WITNESS

1 #14) assisted me with some of this inspection and handed
2 me over whatever issues he may have had. So I'm not sure
3 what structures those are. I don't recall which
4 structures those are that he inspected, but I did the
5 logging of those inspections. So --

6 Q. Right. But you said (WITNESS #14) helped you
7 with this?

8 A. With the flying portion.

9 Q. And nobody else?

10 A. To the best of my recollection, no.

11 Q. Do you recall (EMPLOYEE #13) assisting with the
12 inspection of the Caribou-Palermo?

13 A. I do not.

14 Q. Do you recall (EMPLOYEE #16) assisting with the
15 inspection of the Caribou-Palermo?

16 A. No, sir.

17 Q. Do you remember (EMPLOYEE #15) assisting you
18 with the inspection of the Caribou-Palermo?

19 A. I do not.

20 Q. All right.

21 All right. So let's move on. Now we've
22 brought up another page of the report. Do you recognize
23 this page? This would be in 167.

24 A. Yes, sir.

25 Q. What is this page?

26 A. This is a list of pre, I guess they call them

1 -- what do they call them? Preconditions. Preexisting
2 conditions.

3 Q. Okay. Is there a nickname for it?

4 A. Not that I recall.

5 Q. Have you heard the term "priors"?

6 A. Yes, sir.

7 Q. Is this sometimes noted they are called the
8 "priors list" or "priors page"?

9 A. Yes, sir.

10 Q. What, in your experience, in your knowledge as
11 a lineman and a temporary troubleman, what does this page
12 indicate?

13 A. This page indicates what structure has what
14 issue on it currently.

15 Q. Currently to when?

16 A. I don't know. Yeah, I don't know.

17 Q. Is this page something that you produce?

18 A. It is not.

19 Q. Where does this page come from?

20 A. I don't know who puts this page together, but
21 these tags can either be -- we call them "tags,"
22 "notifications," whatever you want to call them -- they
23 come from either crew on site notice something and they
24 wrote it up, troublemen wrote something up, it goes in.

25 Q. Let's talk about the page itself first.

26 A. Okay.

1 Q. The information on the page, is that something
2 that you generate or something that you're given as part
3 of your inspection?

4 A. Something that I'm given. It comes in a
5 package like this.

6 Q. That's where I was going. So the notifications
7 page is something that you were provided with the packet
8 to perform the inspection?

9 A. Yes, sir.

10 Q. And do you know why you're given the
11 notification page listing all the tags?

12 A. So that we can look at these conditions and
13 ensure that they're safe and that we can still, or that
14 we still have work to do or if they've been completed.

15 Q. Okay. So going back with your inspection. And
16 now I want to go to pages 41 and 42 of your inspection.
17 Do you see those pages?

18 A. Yes, sir.

19 Q. Both pages have your name at the top?

20 A. Yes.

21 Q. That would indicate that you did the
22 inspection; correct?

23 A. Yes.

24 Q. But we don't know for sure if you did or not?

25 A. This section I did.

26 Q. You know for sure that you did?

1 A. We did not fly this section. This is
2 accessible by vehicle.

3 Q. All right. And this starts, page 41, in the
4 first tower, is what -- God, I can't read it up there.

5 A. 41?

6 Q. Yep.

7 A. Colon 022 over 184.

8 Q. So goes from 22/184 to 24/199; is that correct?

9 A. Yes, sir.

10 Q. And based upon the report, it would appear that
11 you inspected these on August 7th, '14; correct?

12 A. Yes, sir.

13 Q. And on 22/188, I believe that's the right
14 tower, can you explain the check mark that's on there?

15 A. Says "preexisting condition" checked.

16 Q. What does that mean?

17 A. That would mean that whatever issue was out
18 there was, was looked at.

19 Q. Okay. So let's go back to the notifications
20 page. Do you see that preexisting condition on the
21 notifications page?

22 A. I do.

23 Q. What does it say?

24 A. It says "Caribou-Palermo 22/188, replace
25 connectors."

26 Q. Do you understand what replace connectors

1 means?

2 A. Means that there's connectors on that we were
3 supposed to be replacing or written up to be replaced.

4 Q. All right. Do you know anything about the
5 history of that tag?

6 A. I don't.

7

8 (Grand Jury Exhibit 545 was marked for identification.)

9

10 Q. All right. I want to go forward to 545, the
11 map marked as 545. Again, do you recognize the area
12 depicted on the map?

13 A. Yes, sir.

14 Q. What is the area depicted on the map?

15 A. Storrie Road, a big section of the line that is
16 pretty much only accessible by -- well, you can get back
17 there by a truck, but it's kind of tight.

18 Q. Okay. And this map shows a close-up of the
19 area from 23 over 193 to 22 over 186; is that correct?

20 A. Yes, sir.

21 Q. And that's an area that, again, according to
22 the report, you inspected on August 7th; correct?

23 A. Yes, sir, according to the report.

24 Q. Now, superimposed we've got the portion from
25 the notifications page and from the inspection for
26 22/188. Do you see that?

1 A. Yes.

2 Q. So indicates "preexisting condition checked,
3 tower number 22/188" right here?

4 A. Uh-huh.

5 Q. That preexisting condition was replace
6 connectors?

7 A. Yes, sir.

8 Q. Correct?

9 And this is information that you were provided
10 by the company prior to your inspection?

11 A. Yes, sir.

12 Q. So when did you start at Table Mountain?

13 A. Get my fingers out. Actually, you know what,
14 get my resume out. 2010-ish.

15 Q. You started there as a lineman?

16 A. Yes, sir.

17 Q. Do you remember a major event occurring on the
18 Caribou-Palermo line in 2012?

19 A. I don't.

20 Q. Okay. Do you remember replacing any conductor
21 line on the Caribou-Palermo in January of '13?

22 A. Hold on. Wait. There was a section -- I only
23 recall because we've talked about this before, but a
24 section of the line that a couple towers went down and
25 were replaced.

26 Q. Yep. It's more than a couple towers; right?

1 Five towers?

2 A. (Nods head.)

3 Q. Remember, you've got to answer out loud.

4 A. Yes.

5 Q. So in 2012 five towers fell down, also one
6 additional tower was damaged beyond repair; correct?

7 A. I don't recall the specifics.

8 Q. But you recall having to restring line?

9 A. I didn't do it personally. I recall our
10 Transmission General Construction crew going in and doing
11 it.

12 Q. Okay. Do you know what a shoo-fly is?

13 A. Yes, I do.

14 Q. What is a shoo-fly?

15 A. Shoo-fly is a section of line -- I guess the
16 best way to explain it, it's a section of line that goes
17 around an existing section of line.

18 Q. So I'm showing you, or you have in front of
19 you, should have in front of you there what's already in
20 evidence as 453.

21 A. 453. I'll find it.

22 Q. I thought it was in that packet.

23 A. All I have is 5's, but I can see it right here.

24 Q. Well, we have it displayed up on the big board.
25 It's a digital copy with the Grand Jury sticker signed by
26 the foreperson. Signed, dated by the foreperson. Do you

1 recognize this map? Do you recognize what that map
2 depicts?

3 A. I don't recognize this map, but I can see what
4 it depicts, yes.

5 Q. Is that based on your experience with PG&E?

6 A. Yes.

7 Q. Okay. Explain to us what we're looking at.

8 A. So basically looks like we're taking out a
9 section of line and putting in a new, some new structures
10 and section of line.

11 Q. So this line is the Caribou-Palermo, correct,
12 according to the line?

13 A. Yes, sir.

14 Q. And according to the map, it goes from 22 over
15 186 to 23 over 193; correct?

16 A. Yes, sir.

17 Q. So the question is how did you inspect 22/188
18 if it wasn't there?

19 A. I recall inspecting that entire line from the
20 section (WITNESS #1) and I went from to Caribou
21 Powerhouse minus whatever structures (WITNESS #14)
22 inspected.

23 Q. Okay.

24 A. In my process of writing issues down, I
25 wouldn't have seen any issues on these, so I didn't write
26 anything down on these brand new poles that may have been

1 out there. So coming back to my paperwork and looking
2 from my notebook of issues and cross-referencing by what
3 issues were given to me in the beginning, that's how that
4 may have been marked.

5 Q. Okay. That's what I wanted to go back over
6 with you. This is where we started the last time right
7 before we ended. Walk us through your process when you
8 were a temporary troubleman for conducting and recording
9 an inspection.

10 A. So coming into an inspection on a structure,
11 I'll come and start at the base of the tower, work my way
12 up, looking for anything that stands out. Any -- I look
13 at the footings, look at the steel, making sure that the
14 steel is sound, nothing's out of the ordinary.

15 Work my way up to the conductor area, looking
16 at the insulators, looking at the connections, looking
17 for any arcings, burns, broken glass, any leakage, making
18 sure that the shoes are tight, that they haven't moved.

19 And then if I've noticed that there's something
20 wrong on that structure, I'll write down on my note pad
21 because I don't take this out to the field because of
22 hiking and driving in a Razor, don't want to get this
23 document messed up. So the structure number and the
24 issue go on my note pad.

25 If I look at that tower and there were no
26 issues, I don't write anything down, so that when I get

1 back to the yard all that I have in my notebook are
2 structures that had issues. And that gets
3 cross-referenced with the priors list. And whatever I've
4 written down on my list, if it is on the priors list, I
5 cross it off so I don't reduplicate whatever has already
6 been written up, and then transpose all of this to the
7 actual object list.

8 Q. So the priors list is something that is
9 provided to you by the company prior to the inspection;
10 correct?

11 A. Yes, sir.

12 Q. That's not something you generate?

13 A. No.

14 MR. NOEL: I think that's all I have for
15 (WITNESS #23). Do any of the jurors have questions?

16 I see at least one hand going up.

17 All right. The jurors themselves get the
18 opportunity to ask you questions. So they're writing
19 them down, they will hand them to me, we'll review them
20 and then read them to you.

21 (Counsel and Grand Jury Foreperson confer).

22 MR. NOEL: All right. I think I've got six
23 questions here from the jurors.

24 Q. (By MR. NOEL) All right. Start off with if
25 you're using a laser to make a measurement to gauge
26 distance between the conductor to the ground, how, how do

1 you gauge the low point of the conductor?

2 A. By sight.

3 Q. Do you have any tools to do so or --

4 A. No, sir.

5 Q. Just guessing as you're looking at it?

6 A. Best estimation.

7 Q. Did you receive any training in determining the
8 low point of the belly of the conductor? So following up
9 on that, first, are you given any training to teach you
10 how to identify the low point.

11 A. Basic linemanship. When we sag wire, we're,
12 we're sagging wire to the equal, so all three phases are
13 the same length.

14 Q. If the inspection lists only reflect the date
15 you wrote down the information, how can we know with
16 certainty the date you actually inspected the equipment?

17 A. Without my notebook, there's no way to know.

18 Q. Does your timecard reflect the GPS coordinates
19 of the equipment you inspected on that date?

20 A. I don't recall.

21 Q. If these reports cannot be relied upon in one
22 aspect, how can we rely on them in any other aspect?

23 A. I don't know.

24 Q. If a priors list contains an issue, an issue,
25 would that have been -- okay. If a priors list contains
26 an issue, would the priors list be modified if the issue

1 was corrected?

2 A. By me?

3 Q. Yes.

4 A. I don't recall.

5 Q. And following up on the earlier question about
6 your notebook, what happens with the notes you take
7 during your inspection?

8 A. I don't recall what I did with them. I'm not
9 told to keep them.

10 Q. Okay. Are there, to your knowledge, are there
11 any policies within PG&E for keeping those records?

12 A. Not to my knowledge.

13 Q. Is your method, or what your procedure was, for
14 doing your inspections, was that common?

15 A. That's what I did. I wasn't taught that.

16 Q. Okay. How were you taught to do it?

17 A. I, I don't recall.

18 Q. If you don't take your priors list, slash,
19 inspection packet with you when completing the
20 inspection, how do you know what to look for on a tower
21 with a preexisting condition?

22 A. I look at the tower entirely, so I would see
23 preexisting conditions. Those preexisting conditions or
24 whatever condition it may be, good or bad, would be
25 written down. So if I found an issue, it would be
26 written down, I would come back and cross-reference it to

1 my priors list.

2 Q. Okay. So when you're doing the inspection with
3 your notebook, you're actually writing down every
4 condition that you see?

5 A. Yes, sir.

6 Q. And then you come back and you check that
7 against the priors list to see if any of those are on
8 there?

9 A. Yes, sir.

10 Q. How do you check -- I mean, for instance, this,
11 on 22/188 replace connectors, do you remember what it is
12 you're looking for or why that would be an issue?

13 A. Well, I knew at the time that we had these type
14 of connectors that they wanted to get rid of. So if I
15 saw them out there, I would write them up.

16 Q. Okay. You're talking about parallel groove
17 connectors?

18 A. I don't know the exact name. We called them
19 the -- I can't remember what we called them. Been five
20 years.

21 Q. And so -- but you have no idea as to how long,
22 how old that tag was; correct?

23 A. No.

24 Q. And so when you're checking this box,
25 "preexisting condition checked," what does that mean?

26 A. That means that whatever the issue was out

1 there was inspected.

2 Q. Okay. But going back to the way you said you
3 were doing your inspections, you're taking a notebook
4 out, you're looking at everything, you're recording
5 anything that you see, and then you're coming back and
6 comparing it to the priors list. So, correct me if I'm
7 wrong, but it sounds like for this, you would have
8 written down in 22/188 -- or you wouldn't have written
9 down -- it would have been, "I saw connectors." But how
10 is that checking the preexisting condition other than
11 just identifying that there were connectors in that line?

12 A. I don't know.

13 Q. Is there others like that? So let's go to page
14 45 of your Transmission Line Object List.

15 A. All right.

16 Q. We're looking at tower number 27/222. This
17 says, "Preexisting condition checked." If you can flip
18 back to your object list and tell me what the preexisting
19 condition was.

20 A. Replace connectors.

21 Q. Okay. So the same, same issue.

22 So when you checked off the 27/222 preexisting
23 condition checked, what does that actually mean?

24 A. That I saw the issue out there and wrote it in
25 my book.

26 Q. Okay. It doesn't mean that you actually looked

1 at the issue to determine if there had been any changes
2 or anything like that?

3 A. In my opinion, there wouldn't -- I would have
4 no way to gauge a change if I didn't write it up
5 initially and see it and have pictures of what it looked
6 like in the initial write-up.

7 Q. Okay. We talked about you said earlier you
8 knew that those connectors were no longer in use;
9 correct? Do you know why those connectors --

10 A. I don't recall.

11 MR. NOEL: Anything further? Any more
12 questions?

13 All right. I think that's all we have of this
14 witness.

15 GRAND JURY FOREPERSON: (WITNESS #23), I need
16 to remind you of the admonishment I gave last week or the
17 week before.

18 THE WITNESS: Three weeks ago.

19 GRAND JURY FOREPERSON: You are admonished not
20 to discuss or disclose at any time outside of this jury
21 room the questions that have been asked of you or your
22 answers until authorized by the Grand Jury or the Court.
23 A violation of these instructions on your part may be the
24 basis for a charge against you of contempt of court.
25 This does not preclude you from discussing your legal
26 rights with your own attorney.

1 (WITNESS #23), what I have just said is a
2 warning not to discuss this case with anyone except the
3 Court, your lawyer, or the district attorney. Do you
4 have any questions?

5 THE WITNESS: No, ma'am.

6 GRAND JURY FOREPERSON: Okay. Thank you for
7 your time.

8 [DISCUSSION OMITTED.]

9 (Lunch break taken.)

10 [PROCEEDINGS OMITTED.]

11 [ROLL CALL OMITTED.]

12 [DISCUSSION OMITTED.]

13 GRAND JURY FOREPERSON: Before you have a seat,
14 Mr. Renfro, I need to swear you in. If you would raise
15 your right hand, please.

16
17 JOHN RENFRO
18 having been called as a witness in
19 the matter now pending, having been first
20 duly sworn, testifies as follows:

21
22 THE WITNESS: Yes, I do.

23 GRAND JURY FOREPERSON: Thank you. Have a
24 seat, please.

25
26 EXAMINATION

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BY MR. NOEL

Q. For the record, can you please state your full name, spelling your last name.

A. John Bradley Renfro, R-E-N-F-R-O.

Q. Mr. Renfro, by whom are you employed?

A. PG&E.

Q. Let's turn that microphone a little bit.

What do you do for PG&E?

A. I am a transmission system operator.

Q. What is a transmission system operator?

A. My job is to monitor the electric grid, take equipment in and out of service, keep it within operating limits, and keep power to cities on, dispatch personnel and --

GRAND JUROR #15: Can't hear him.

MR. NOEL: We're still having trouble hearing you. Pull that microphone up, maybe speak a little bit more into it.

GRAND JUROR #15: Thank you.

MR. NOEL: With these high ceilings, these acoustics aren't real good.

THE WITNESS: I understand. Would you like me to start again?

Q. (By MR. NOEL) Go ahead.

A. My job is to monitor the electric system,

1 respond to outages, main -- keep the equipment in service
2 and within operating limits, dispatch personnel in the
3 field, and try to keep the electric grid running in a
4 stable condition.

5 (Discussion off the record.)

6 Q. (By MR. NOEL) All right. So physically where
7 do you work?

8 A. Out of the Grid Control Center in Vacaville.

9 Q. What is the Grid Control Center?

10 A. It is the consolidated hub for all transmission
11 operations for PG&E.

12 Q. Give us a quick description of what it looks
13 like in the Grid Control Center.

14 A. We have large map wall that displays all of our
15 extra high voltage lines, 115, 230, 500 kV. The state's
16 split into six jurisdictions, and each of those
17 jurisdictions has their own pod where they have all their
18 computer controls, maps SCADA, and personal computers.

19 Q. Explain to us how you keep the transmission
20 system up and running.

21 A. We monitor the SCADA, which is a Supervisor
22 Control and Data Acquisition program. It's essentially
23 remote monitoring. We have control of the equipment in
24 the field. We dispatch personnel if we do not have
25 control of equipment. We monitor control points,
26 equipment limitations, voltage limitations, loading on

1 lines, et cetera.

2 Q. Were you on duty in the Grid Control Center on
3 the morning of November 8th, 2018?

4 A. Yes, I was.

5 Q. What was your job that morning?

6 A. I was on the real-time operations desk.

7 Q. What is the real-time operations desk?

8 A. Real-time operations desk is the operator on
9 shift for daily routine work, trouble. We are constantly
10 monitoring what's happening throughout the day on our
11 assigned jurisdiction.

12 Q. What was your assigned jurisdiction?

13 A. My area was the north state jurisdiction, which
14 consists of Humboldt, Round Mountain, and Table Mountain
15 Control Centers.

16 Q. From your position in the Grid Control Center,
17 from your desk in there when you are monitoring, are you
18 able to do real-time monitoring of all of the
19 transmission lines in Humboldt, Round Mountain, and Table
20 Mountain?

21 A. Yes.

22 Q. All simultaneously, or do you pick which one
23 you're going to look at?

24 A. There's a computer constantly pulling data,
25 monitoring all lines in the system. As an operator, I
26 tend to focus on the equipment I'm working on at the

1 time, or equipment being switched out of service, or
2 equipment that has experienced a trouble event.

3 Q. What happens if there's a problem on one of the
4 lines you're monitoring?

5 A. When a trouble event occurs, SCADA and our EMS,
6 our mapping program, pulling pages of audible and visual
7 alarms that will alert us to trouble on the line.

8 Q. Is that information presented to you or --

9 A. Yes.

10 Q. How do you find out that there's a problem on
11 the line?

12 A. Yes. There are alarm pages I have up on my
13 SCADA computer which alert me to that, like I said, using
14 visual and audible alarms. I see those directly.

15 Q. Okay. Is it some kind of an alert that goes
16 off telling you there's a problem, or do you just --
17 watching the page and seeing that that looks out of
18 place?

19 A. It's an audible. It's a distinct audible tone
20 when the trouble event occurs on a piece of equipment.

21 Q. At approximately 6:15 a.m. on November 8th, did
22 you get a trouble alert?

23 A. Yes.

24 Q. And were you able to determine what line?

25 A. Yes.

26 Q. What line did that come from?

1 A. That would be the Caribou-Palermo 115 kV line.

2 Q. Now, at the time or prior to the alert, was the
3 Caribou-Palermo 115 kV line energized and performing?

4 A. Yes, sir. It was normal and in service.

5 Q. What was the alert that you received?

6 A. Breaker open at both the Caribou and Palermo
7 terminals of the line.

8 Q. What does that tell you?

9 A. That tells me that the line relayed and
10 protective system took the line out of service.

11 Q. Okay. What does it mean for a line to relay?

12 A. A line to relay indicates that protective
13 relays data that are tied to circuit breakers at both
14 terminals of the line experienced a fault condition
15 telling the breaker to open and take the line out of
16 service, de-energizing it.

17 Q. And you said protective measures that were in
18 place set in?

19 A. Correct.

20 Q. What kind of protective measures?

21 A. All lines in our system are protected by
22 relays. They monitor current on the line, and any
23 abnormal current that would be caused by faults exceed a
24 threshold or a time threshold and trips the breaker,
25 which takes the lines out of service.

26 Q. When you receive this alert, what do you do?

1 A. At that time, my first job is to verify what
2 line it was. So I would pull up a map, see, okay, yes,
3 my breakers are open.

4 Had the line tested? Yes or no.

5 What customers are out at that time?

6 What are concerns I may have if another line is
7 perhaps overloaded because of this?

8 And then I have 5-, 10-, and 15-minute reports
9 to make.

10

11 (Grand Jury Exhibit 566 was marked for identification.)

12

13 Q. Okay. You have in front of you a stack of
14 exhibits. I'm going to start going through them.

15 Starting with the one marked Exhibit 566 in
16 front of you, do you see that item?

17 A. I do.

18 Q. Do you recognize 566?

19 A. Yes, sir. It's details of the interruption
20 report.

21 Q. Okay. Explain to us what we're looking at.

22 A. Interruption report is how we document outages
23 on lines or equipment. We use it to log our time that
24 the line relayed or equipment relayed, what time our
25 notifications are made.

26 Q. Okay. And you can get up and move around and

1 use the Smartboard here. Kind of walk us through how to
2 read this report and what it is that it's telling us.

3 A. First, assigned jurisdiction for me that day.
4 I was assigned to the north state area, specifically
5 Table Mountain jurisdiction. That's the jurisdiction the
6 line is.

7 Resource type. Of course, the Caribou-Palermo.
8 Voltage level.

9 The time the event initially started. 0615.
10 Same time we became aware when I received the initial
11 alarms.

12 When you come to this, the cause, we have no
13 visual on the trouble at that time, so we put "unknown"
14 until we have visuals in the field. We can update this
15 at a later date.

16 Q. System protection details?

17 A. So system protection is a separate group
18 message of our protection engineers. They have the
19 ability to remotely dial into the protective relays at
20 both terminals, and they can interrogate the relays,
21 which means pull data remotely and get a rough idea of
22 where the fault may have occurred on the line. They then
23 fill in their section on this and send us an email saying
24 we believe the fault may be within this area, plus or
25 minus a mile mark usually.

26 Q. So is that the information down here, fault

1 location 1, fault location 2?

2 A. That is correct.

3 Q. Explain to us what all of that means.

4 A. So accuracy of location, it could be plus or
5 minus two miles of their initial fault. So appeared this
6 one, 22.2 miles from Caribou Powerhouse. That is
7 probably the terminal they pulled from at Caribou. I can
8 only speculate. I am not sure. They would send us this
9 information, plus or minus two miles, we would take that
10 into accord. And then this is the second time they
11 interrogate the relays, which means they may have pulled
12 from a second set. There are two at each terminal. So
13 the second set could have been more or less accurate.
14 They have to pull both data and give this to us. We have
15 to then send it to field personnel to try to get someone
16 on site to investigate.

17 Q. So is this telling us that the trouble is
18 somewhere between these two points, or these are two
19 separate things that may be at one of those points?

20 A. It could be at either one of those points
21 within plus or minus the two-mile mark.

22

23 (Grand Jury Exhibit 566A was marked for identification.)

24

25 Q. Okay. Let's move on next to the second page of
26 that document, which I believe is marked as 566A -- is

1 that correct?

2 A. That is correct.

3 Q. Okay. What is 566A?

4 A. So 566A is where it is actually showing my
5 recorded times for all the actions I performed. I
6 clicked the tabular and opened the interruption report
7 0615.

8 My first report was to my system dispatch at
9 0616. I notified him of the time the Caribou 115 kV line
10 relayed.

11 Distribution was not affected. So that's an
12 irrelevant box for that.

13 And then E-page, which is our 15-minute
14 notification, was sent out. And that goes to the
15 supervisor of the field personnel, field personnel,
16 whoever is -- I'm sorry, I'm trying to think of the word
17 -- subscribed to the E-page notification system.

18 Q. What is the E-page notification system?

19 A. It's essentially an email notification, or it
20 can go out as a text. Recording usually be made on
21 pagers. It is nothing more than what this line here
22 says. "11082018 0615 Caribou-Palermo 115 line opened
23 relayed. Did not test for wild fire mitigation." That
24 is all -- anyone subscribed to that will get an alert on
25 their phone; text message, email. And that is as basic
26 as it will read. Just a notification that that line is

1 now out of service.

2 Q. So the last part of that message, "Did not test
3 wildfire mitigation," what does that mean?

4 A. Did not test due to wildfire mitigation implies
5 that we had cut all reclosing out on that line.

6 Q. You're going to have to explain that to us,
7 what that means.

8 A. So reclosing during normal conditions and not
9 fire season, a line would attempt to test, re-energize
10 itself to put the line back into service.

11 Q. Okay. Let me put it into layman's terms. We
12 have some light switches over there behind you. When the
13 light is on, is the circuit open or closed?

14 A. The circuit is closed.

15 Q. So when we turn the light off, the circuit is
16 open; right?

17 A. Correct.

18 Q. So these reclosures would be, the lights are
19 on, the circuit is closed, something happens to knock the
20 lights off, and then the switch would automatically go
21 back on again and test; right?

22 A. Correct.

23 Q. Okay. So you don't know who the E-page was
24 sent to that morning?

25 A. I do not have a list of who is subscribed to
26 the E-page.

1 Q. Is that something you physically have to do
2 something to do, or the computer does automatically?

3 A. So we have on our interruption report, we
4 choose to send a notification, we select send E-page, we
5 choose Table Mountain outage, and it sends it to all
6 personnel subscribed to Table Mountain outage.

7 Q. Okay. Then the next event on there, 1108 at
8 6:18. Go ahead and explain for us.

9 A. That was actually a accidental time put in by
10 me. I should not have done that. I put the time in the
11 wrong box. That was supposed to be my time for E-page
12 notification. I accidentally closed the interruption
13 report, which implied that the line had been returned to
14 service, which it had not.

15 Q. Okay. And then going back up the page.

16 A. Up there is where I corrected my time and put
17 it 0618 I notified via E-page, that my E-page had been
18 sent, corrected my time.

19 Q. Okay.

20 A. And at the top, this is our last notification I
21 initially made for the Caribou-Palermo 115 kV line relay.
22 It caused a sustained interruption to Grizzly Powerhouse.
23 Rock Creek jurisdiction, Rock Creek Hydraulic Opps, I was
24 in charge of that powerhouse, so I made a call to
25 (WITNESS #7) who was on shift for the Rock Creek
26 operation at the time.

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(Grand Jury Exhibit 567 was marked for identification.)

Q. Great. Let's move on to 567. Do you recognize 567?

A. It just -- that is my correcting my time for the interruption report to the lines still being out of service.

Q. Okay. So let's back up. Just in general, what is 567?

A. 567 is what we call a "total log." Transmission operations and Transmission operations total logging. This is how we create logs of daily events. Any significant events, we would create a log item such as this, and then continue to type any important details, personnel phone numbers, information in. And in this case, with the INT, dash, 11514 in the right corner, it is saying that this log is associated with that interruption report for the Caribou-Palermo 115 kV line.

Q. I was just going to ask you about that, because we saw that number on 566 also repeated several times, the INT11514. What is the significance of that number?

A. That number itself is actually the interruption report for the Caribou-Palermo line. So if we go back to item 566, you'll see in the top left corner the interruption report has its own number stamp.

1 Q. Okay. Right there at the top, "detail for
2 interruption"?

3 A. Correct.

4 Q. All right. Is that a unique number --

5 A. Yes.

6 Q. -- for this event?

7 A. Yes.

8 Q. So anything we see referencing INT11514 would
9 be -- sorry -- referencing the interruption recorded at
10 6:15 a.m. on November 8th, 2018, on the Caribou-Palermo
11 115 kV line?

12 A. That is correct.

13 Q. All right. And this says, under the "Log
14 Text," what does that mean?

15 A. Under "Log Text," it, again, was me correcting
16 my time that I became aware of the interruption. It was
17 nothing more than a time change correcting my E-page
18 error.

19

20 (Grand Jury Exhibit 568 was marked for identification.)

21

22 Q. Okay. Let's move on to 568. What is 568?

23 A. This is the time stamp for me actually starting
24 the interruption report for the Caribou-Palermo 115 kV
25 line.

26 Q. What time did you do that?

1 A. Date created, 0617, log text 0615 started an
2 interruption report 11514 for Caribou-Palermo. So at
3 115. Or 0615, excuse me.

4 Q. So 0615 is when you first got it. This created
5 date, 061742?

6 A. That would be when I saved the log digitally
7 logging it.

8 Q. Okay. I was going to ask if that referenced
9 the accidentally ended it then restarted it or --

10

11 (Grand Jury Exhibit 569 was marked for identification.)

12

13 Q. Next, 569. What is 569?

14 A. Again, time stamp notification of when I put in
15 my E-page. So save log at 0618, about E-page sent at 06
16 -- or in regards to the same interruption report.

17

18 (Grand Jury Exhibit 570 was marked for identification.)

19

20 Q. Okay. 570?

21 A. Time stamp of me marking that Distribution
22 Operations was NA. We did not notify the outage of the
23 Caribou-Palermo line.

24 Q. So D-O stands for Distribution Operations?

25 A. That is correct.

26 Q. And what does NA stand for?

1 A. NA is not applicable. They had no customers'
2 outages.

3 Q. NTFB?

4 A. Abbreviation for notified.

5 Q. This didn't affect any distribution customers?

6 A. That is correct.

7

8 (Grand Jury Exhibit 571 was marked for identification.)

9

10 Q. 571?

11 A. Another time stamp of the time I saved the log
12 in reference to my notification to (WITNESS #7) at Rock
13 Creek Operations.

14

15 (Grand Jury Exhibit 572 was marked for identification.)

16

17 Q. 572?

18 A. This is the time stamp for my dispatcher in his
19 log when I made my report to him. So contact would be
20 myself, John Renfro, and notified my assistant dispatch,
21 Ralph Natividad. Log was created by him. This is him
22 indicating what reports I made to him.

23 Q. Okay. So what -- when you say "my dispatcher"
24 or "my assistant dispatcher," explain to us what that
25 means.

26 A. So whenever we have a line or equipment remove

1 itself from service or significant events, our first
2 notification to make, once we have an understanding of
3 what's going on, is to our system dispatch. We have to
4 state what time the equipment took itself out of service,
5 what equipment it was, who was affected, and weather
6 conditions at that time. It also appears that he put
7 that he notified CAL/ISO Rueles at the same time. So
8 following my report to him.

9 Q. Okay. So you immediately make a report to
10 Mr. -- how do you pronounce that?

11 A. Natividad.

12 Q. -- Natividad at 6:15. In between 6:15 and 6:24
13 Mr. Natividad --

14 A. 0624 would be the time he saved this.

15 Q. Okay.

16 A. That is when it time stamped.

17 Q. All right. Do you have any idea where the
18 mention of the weather being windy comes from?

19 A. Again, we are required to make that in a
20 report. And we knew of high winds in the area. So when
21 I initially report the outage, I reported high winds in
22 the area.

23
24 (Grand Jury Exhibit 573 was marked for identification.)
25

26 Q. Next, on to 573. Explain 573 to us.

1 A. This is a log item I created at -- looks like
2 he made the report at 0642, as indicated at the top of
3 that DTS time.

4 I created the log myself stated at 0645.

5 0638 I received a call from Rock Creek Control
6 that there had been a report of a fire from their roving
7 operator in the canyon across from Poe Dam.

8 Q. Okay. What is Rock Creek Control?

9 A. Rock Creek Control is a hydro-operation center
10 in the canyon based out of our Rock Creek Powerhouse.

11 Q. Do you know where that is in reference to the
12 Caribou-Palermo line?

13 A. It would be along the Highway 70 corridor,
14 somewhat parallel to it.

15 Q. So somebody named (EMPLOYEE #2) from Rock Creek
16 calls you and reports that there's been a fire?

17 A. That's correct.

18 Q. And that the fire is being reported to him, and
19 that he's getting that information from somebody at Poe
20 Dam?

21 A. Correct.

22 Q. And it goes on. You go ahead and read the rest
23 of it and explain it to us.

24 A. The next notification, 0640, was when I
25 notified my dispatch of the fire.

26 And then 0641 I notified our T-line supervisor

1 of the fire in the canyon, requested personnel dispatch.

2

3 (Grand Jury Exhibit 574 was marked for identification.)

4

5 (Grand Jury Exhibit 574A was marked for identification.)

6

7 Q. So let's go on to 574. I'm going to play you a
8 recording.

9

(Recording plays.)

10 Q. You heard the recording, you've got the
11 transcript. The recording, 574; the transcript, 574A.
12 Is that the phone call that's listed in 573?

13 A. That's correct.

14 Q. So that's you calling --

15 A. (WITNESS #22), our T-line supervisor.

16 Q. For Table Mountain?

17 A. Correct.

18

19 (Grand Jury Exhibit 575 was marked for identification.)

20

21 Q. All right. 575. Explain to us what this log
22 entry says.

23 A. So for every piece of equipment that comes out
24 of service, we start a log number. That would be, in
25 this case, the T18016158 number.

26 Q. So that's in addition to the interruption

1 report?

2 A. Correct. The interruption report would then
3 become associated with the outage log. This is to
4 actually track the equipment out of service.

5 Q. So what equipment was taken out of service?

6 A. This is the, in reference to the
7 Caribou-Palermo 115 kV line. And this log specifically
8 is when I entered the equipment out of service, slash,
9 path interrupted.

10 Q. Okay. So equipment out of service, we're
11 talking about the entirety of the Caribou-Palermo line?

12 A. That is correct.

13

14 (Grand Jury Exhibit 576 was marked for identification.)

15

16 Q. And 576, do you recognize this document?

17 A. Yes.

18 Q. What is 576?

19 A. This is the actual work card document for the
20 clearance T18 number there. It's a little hazy, but this
21 is where we would track all the outage information.

22 Q. Okay.

23 A. So the card -- again, same reference as the
24 interruption report.

25 Work type. At this point we were assuming we
26 have to clear the Caribou-Palermo line.

1 Q. What does it mean to clear it?

2 A. We have to establish a clearance to safely work
3 on the line. We have to create visual open points, lock
4 them, hang on line tags so there is no possibility for
5 the line to be energized into personnel working on the
6 line.

7 Q. Okay. Go ahead.

8 A. Again, so line, Caribou-Palermo.

9 ISOID. CAL/ISO monitors PG&E and regulates our
10 equipment, what equipment we have in and out of service.
11 They have their own log numbers associated to all of
12 ours.

13 Primary cause. Line equipment trouble.

14 The line relayed itself out of service. We
15 don't have any more specifics.

16 Secondary cause. Under investigation.

17 Unfortunately, I cannot read that.

18 Q. This is getting really fuzzy up there, isn't
19 it?

20 A. Scheduled start time. That would be at --
21 probably the time the card was made.

22 And then the log. 575 is the actual start time
23 entered here.

24 Line or apparatus. Our tool automatically
25 posts what was in the interruption report which was
26 created. So that's where you get the Caribou-Palermo

1 line relayed and did not test due to wildfire mitigation.
2 That should simply say Caribou-Palermo 115 kV line.

3 Q. Okay.

4 A. And we began writing switching to clear the
5 line for safety and repairs. So initial clearance was
6 supposed to be from Caribou switch 113, 137, Bucks Creek
7 switch 135, and Big Bend switch 185.

8 Q. Great. So -- because I want to make sure that
9 we understand this, where it says "scheduled start," that
10 doesn't mean that this was something that was scheduled;
11 right?

12 A. Correct.

13 Q. We don't want any misunderstanding.

14 "Scheduled end," you didn't know when it was
15 going to end?

16 A. We just put a generic time in.

17
18 (Grand Jury Exhibit 576A was marked for identification.)
19

20 Q. Okay. Then go over to the back of that page,
21 which I believe is 576A. Can you explain what we're
22 looking at here?

23 A. This is all the time stamps for, time stamps
24 for filling out the work flow. On every outage card we
25 have on our total tool there is a series of steps that
26 are required to follow.

1 In the case of trouble, we tend to skip all of
2 the permissions due to the line already being out of
3 service. So that's why you would see, "skipped work
4 step, TSO confirms all pre-clearance requirements,
5 takeout switching started, skipped equipment out of
6 service, skipped acknowledge."

7 Unfortunately, the tracking tool does not carry
8 over times from interruption reports well.

9 Q. Okay. Is this something that's automatically
10 populated, or something that you have to hand type into
11 the computer?

12 A. Every time we turn a, perform an operation on
13 this tool in regards to work flow, it is time stamped.
14 It can be undone, but the time stamp remains.

15 MR. NOEL: That is all I have.

16 Do the jurors have any questions of this
17 witness?

18 Seeing no hands, apparently the jurors do not
19 have any questions for you. Thank you very much,
20 Mr. Renfro.

21 Madam Foreperson has an admonition to read you.

22 GRAND JURY FOREPERSON: Mr. Renfro, you are
23 admonished not to discuss or disclose at any time outside
24 of this jury room the questions that have been asked of
25 you or your answers until authorized by the Grand Jury or
26 the Court. A violation, a violation of these

1 instructions on your part may be the basis for a charge
2 against you of contempt of court. This does not preclude
3 you from discussing your legal rights with your own
4 attorney.

5 Mr. Renfro, what I have just said is a warning
6 not to discuss this case with anyone except the Court,
7 your lawyer, or the district attorney. Do you have any
8 questions?

9 THE WITNESS: I do not.

10 GRAND JURY FOREPERSON: Okay. Thank you so
11 much for your time.

12 THE WITNESS: Thank you.

13 MR. NOEL: Thank you, sir.

14 We've been in session now for just under an
15 hour. Do you want to take a break now and start fresh
16 with a new witness and power through her, or do you want
17 to start with her, go for a little while, and take a
18 break?

19 GRAND JUROR #4: Go for a little while and take
20 a break.

21 GRAND JURY FOREPERSON: Okay.

22 MR. NOEL: Okay. Whatever you guys would like.

23 (WITNESS #21).

24 (Discussion off the record.)

25 GRAND JURY FOREPERSON: Everybody's back in
26 their place. We're ready to begin.

1 (WITNESS #21), would you please rise and raise
2 your right hand so I can swear you in.

3
4 (WITNESS #21)
5 having been called as a witness in
6 the matter now pending, having been first
7 duly sworn, testifies as follows:

8
9 THE WITNESS: I do.

10 GRAND JURY FOREPERSON: Thank you. Have a
11 seat, please.

12
13 EXAMINATION

14
15 BY MR. NOEL

16 Q. For the record, (WITNESS #21), could you please
17 state your full name, spell your last name.

18 A. My full name is (WITNESS #21). My last name is
19 (SPELLING REDACTED).

20 Q. By whom are you employed, (WITNESS #21)?

21 A. Pardon?

22 Q. By whom are you employed?

23 A. Pacific Gas & Electric.

24 Q. In what capacity?

25 A. I'm currently an operating clerk for
26 Transmission.

1 Q. How long have you been employed by PG&E?

2 A. Twenty-eight years.

3 Q. Could you walk us through your PG&E career, the
4 jobs that you've held since you started.

5 A. Sure. So I started in 1991, and I was hired as
6 a meter reader/utility clerk. So I was a dual -- I did
7 physical work and I did clerical work. And then I had
8 the option of working on rotation for Construction, which
9 I did. I worked as a joint pole clerk. That's a clerk
10 that goes out in the field and measures the connection
11 point on poles. But the bulk of my career was either
12 meter reading or customer service prior to working for
13 Transmission, which I've been with Transmission about
14 seven years.

15 Q. All right. What's your current -- what station
16 are you currently assigned to?

17 A. I am currently at Table Mountain Transmission,
18 out of Table Mountain in Oroville.

19 Q. How long have you been at Table Mountain?

20 A. Seven years.

21 Q. And you're an operating clerk at Table
22 Mountain?

23 A. I am.

24 Q. Have you been an operating clerk the entirety
25 of your seven years at Table Mountain?

26 A. Yes.

1 Q. What is an operating clerk?

2 A. An operating clerk is someone who just works
3 supporting the operations for different groups. Most of
4 the functions that we do are clerical assistance,
5 although, you know, we order materials for jobs, payroll,
6 various things.

7 Q. When you say "support," describe for us how it
8 is that you support the operations at Table Mountain?

9 A. Once again, I do payroll for all the guys, I
10 order supplies, I sometimes coordinate delivery of things
11 out in the field, ordering general supplies, getting the
12 mail; just clerical functions pretty much.

13 Q. Basically everything that keeps the place
14 running; right?

15 A. Yeah.

16 Q. So you work with the troublemen?

17 A. I work with the crew and the troublemen and the
18 supervisor.

19 Q. In front of you, you have what's marked as
20 Exhibit 251. Do you recognize Exhibit 251?

21 A. It's a paper template called a "Corrective Work
22 Form."

23 Q. What do you mean by a paper template?

24 A. Well, this is a paper version of what was
25 handed to me back in, several years ago when we would
26 fill these paper templates out, or the troublemen would.

1 And then the next one is an electronic version. So
2 there's a difference.

3 Q. Okay. And let's go on to 252. What is 252?

4 A. 252 is the electronic version versus the paper
5 version that we just saw.

6 Q. So walk us through your role in this process.

7 A. Okay. So when there was a problem out in the
8 field, our troublemen primarily would fill out the paper
9 template, give it to me, and then I would take that same
10 information and I would enter it in a system called SAP,
11 and it would generate the electronic version that prints
12 out.

13 Q. Okay. So you take the handwritten notes of the
14 troublemen and input them into the computer?

15 A. They weren't always handwritten. They had the
16 option of either handwriting them or they would type the
17 template out on a computer and send it to me via email.

18 Q. Then you would enter that into the SAP system?

19 A. That's correct.

20 Q. What's the SAP system?

21 A. It's the system that we use to capture this
22 information, or to create what we called -- these are
23 called "notifications" notifications of work. We also
24 use SAP to do timekeeping.

25 Q. What do you mean timekeeping?

26 A. So when we do -- when I do payroll, it's

1 through SAP as well.

2 Q. Okay. So do you know what SAP stands for, or
3 did you already say that and I missed it?

4 A. I don't know specifically what SAP stands for.

5 Q. But it's a computer system that you use?

6 A. Yes.

7 Q. Let's go on to what's Exhibit 159. Do you have
8 159 there?

9 A. I do.

10 Q. Okay.

11 A. It's another electronic copy of a notification.

12 Q. Now, what I wanted to ask you about on this
13 one, on 159, is the long text at the bottom.

14 A. Okay.

15 Q. And specifically your name pops up in there.
16 And if you can, explain to us what these notes mean, how
17 they're made, why they're made.

18 A. Anytime you go into SAP, it captures your name
19 and it also captures the date and the time that you put
20 the note in there.

21 So in this exhibit, it shows that I made a
22 note, and the note is stating, "Per (WITNESS #12)," who
23 was then my supervisor for Transmission. So it says,
24 "Per (WITNESS #12), T-line Supervisor, work code should
25 be 534 for voltage connectors." And it was updated.

26 So we have work type codes that we use to

1 identify the work. And 534 is synonymous with bolt
2 connectors, which is what this work is.

3 Q. Okay. Then the next note -- that note is in
4 2012; right?

5 A. No, that note that I read, I was reading my
6 note.

7 Q. Okay. Your note's, your first note's in 2014?

8 A. Correct.

9 Q. Then there's a second note from you, same day
10 but different note?

11 A. Okay. So it's a planner group note. So the
12 note states, "Planner group updated from TLT to TLN."

13 And so we used planner groups to identify who
14 was going to do the work. And TLT is for Tower
15 Department, and TLN was specific to our group. So we
16 have a tower group that works tower, certain kinds of
17 work, and then there was certain work that we would do on
18 the towers. So this way you could differentiate who was
19 going to be doing the work.

20 Q. So updated from TLT to TLN. Does that mean
21 that it was changed from you guys to somebody else, or
22 from somebody else to you guys?

23 A. Somebody else to us. So instead of the Tower
24 Department group working the tag, we at Table Mountain
25 were going to be doing the work.

26 Q. And then finally, there's a third note in there

1 from you in 2016. Do you see that?

2 A. I don't see that on here.

3 Q. Should be on the second page.

4 A. Oh, okay. So that note says that the work was
5 completed by (WITNESS #8) on 6/18/16. And so that's
6 generally whoever completed the work, we note that.

7 Q. Okay. How do you get that information?

8 A. So generally when work is completed in the
9 field, or back then we would get a notification and the
10 information would be written on the notification and then
11 I would enter that same information into the SAP system
12 to close out that notification.

13 Q. Okay. Now, I want to talk to you about patrols
14 and inspections. What is your role in patrols and
15 inspections?

16 A. So my role is every year we have a maintenance
17 plan, annual maintenance plan, and it's all the detailed
18 inspections and the air patrols that we're going to
19 complete for the year. And so we'll get a master list
20 from what we call our "asset strategist." She'll tell us
21 what's going to be done that particular year. And my
22 role is to print all of those patrols out and give them
23 to the troubleshooters that are going to complete the work.

24 Q. Who is the asset strategist?

25 A. The asset strategist is assigned
26 geographically. And our asset strategist, her name is

1 (WITNESS #9).

2 Q. When you say you're supposed to pull the
3 patrols, print the patrols out, what does that mean?

4 A. That means that I enter the job number and then
5 there's a function where you just simply print them out
6 and then you hand them to whoever is going to be doing
7 the work.

8 Q. What is it they're printing out?

9 A. I'm printing out either the detailed
10 inspections, which is on the ground, or the air patrols,
11 which is the one that we do in the air.

12 Q. Okay. Now, the yearly inspection, the yearly
13 calendar or schedule, that's something you get from
14 asset, from asset -- the asset strategist, I'm sorry, at
15 asset management?

16 A. Yes. That's -- they put that together.

17

18 (Grand Jury Exhibit 577 was marked for identification.)

19

20 Q. You should have an Exhibit 577. It's actually
21 going to be underneath that in the -- should be, should
22 be in this pile right here. There you go.

23 You have in front of you 577; correct?

24 A. Correct.

25 Q. What is 577?

26 A. It's just a master list of the maintenance work

1 that we were going to do for the year of 2014.

2 Q. Now, there's different colors on there.
3 There's yellow, there's red, there's blue. Do those
4 colors have any significance?

5 A. I'm not aware of the significance of those
6 colors.

7 Q. Is the Caribou-Palermo detailed inspection on
8 577?

9 A. It is.

10 Q. Where is it at? And, by the way, feel free,
11 you can always get up here and play with the Smartboard
12 if you want to.

13 A. It's highlighted in yellow on here. And it's
14 the fourth line down from the top.

15 Q. Okay. So walk me through how to read this.
16 First column says function location, or "function loc.,
17 ETL3190." What does that mean?

18 A. So every line that we have out there has its
19 own name that it also has its own number that identifies
20 the line. So that line, ETL, is 3190. That's the number
21 of the line. And then we have the name of the line.

22 Q. Okay. "Proposed basic finish date." Do you
23 know what that, what that means?

24 A. That's the month in which we want to conclude
25 that particular patrol -- or inspection, excuse me.

26 Q. Okay. And then, "Description, "10391

1 Caribou-Palermo tower"?

2 A. I don't know the significance of the 10391, but
3 the Caribou-Palermo is the line that it's referring to.

4 Q. Any idea what this "MAT" column means?

5 A. It's just identifying -- the BFZ is for a
6 detailed inspection. But if you saw BFX, that's for an
7 air patrol that we do with helicopters.

8 Q. Okay. "Main work center, Table Mountain."
9 That's your place; right?

10 A. That's right.

11 Q. Does that say "short text"?

12 A. It's just letting you know that it's a detailed
13 inspection versus an air patrol.

14 Q. And then this column that says "work," what is
15 that?

16 A. That's a number that the asset strategist would
17 put in there. I don't know the significance of those
18 numbers except that they were hours allotted to that
19 particular inspection and/or patrol.

20 Q. In your previous experience at Table Mountain,
21 was it common for asset management to allot hours for
22 inspections or patrols?

23 A. The first couple years that I was there, it was
24 always on those master lists. And then I believe it was
25 like 2016 was the last year they did it. And then moving
26 forward, we don't do that anymore.

1 Q. So what does that allotted work hours, that 89
2 hours represent?

3 A. I don't know how they derive or come up with
4 those numbers. It was believed to be a number that they
5 expected the patrol or anticipated that particular patrol
6 or inspection to be done.

7
8 (Grand Jury Exhibit 578 was marked for identification.)
9

10 Q. All right. Another copy just blown up so you
11 can actually read it.

12 Now, on to 578. Do you recognize 578?

13 A. It appears to just be a master list, a
14 maintenance plan, master sheet, for 2014.

15 Q. Okay. Now, you said every year at the
16 beginning of the year, asset management, your asset
17 strategist, sends you out a schedule; correct?

18 A. That's correct.

19 Q. Does that schedule get changed and amended
20 during the year?

21 A. Sometimes it does based on access or safety
22 issues, weather. Things like that are given
23 consideration.

24 Q. So is it unusual to get several different
25 schedules for the same transmission lines during the
26 year?

1 A. You might have a schedule that gets revised
2 based on a meeting generally with -- so every year the
3 troublemen would get together and they would review the
4 last maintenance plan. And if changes were needed, then
5 we would try to do that at that time. So there would be
6 revisions.

7 Q. Okay. This one, 578, starts with patrols to be
8 completed by the end of the month, January 2014; is that
9 correct?

10 A. It starts that way, yes.

11 Q. Then goes through April?

12 A. Right.

13

14 (Grand Jury Exhibit 578B was marked
15 for identification.)

16

17 Q. And the second page, which I believe is 578B --
18 or, yeah, should be 578A or B. I'm sorry, I lost track.

19 A. B.

20 Q. B. That would be May through June?

21 A. Correct.

22

23 (Grand Jury Exhibit 578C was marked
24 for identification.)

25

26 Q. And 578C would be July and August?

1 A. That's correct.

2 Q. Now, again, is the Caribou-Palermo line
3 reflected on this schedule?

4 A. It's reflected in the month of August. And
5 it's the fourth line down.

6 Q. So line number 91, Caribou-Palermo. And then
7 we've blown it up up here.

8 One thing, the hours column has changed. Do
9 you have any idea why that would happen?

10 A. Maybe initially we were looking at an unrevised
11 copy. I'm not really certain.

12 Q. Is it common for that number to change every so
13 often?

14 A. Well, again, I don't really understand why the
15 hours were put on there in the first place. So a change
16 like that, I don't know why they would add or take away
17 hours.

18 Q. Okay. In your experience as the operating
19 clerk, the person who is inputting all of this data in,
20 were the numbers, the allotted hours reasonable for the
21 job that they wanted done?

22 A. I have no idea, because I've never done field
23 work, and I have no idea what it would take to do some of
24 these patrols.

25 Q. Well, was it common for patrols or inspections
26 to go longer than the allotted time?

1 A. Sure.

2

3 (Grand Jury Exhibit 587 was marked for identification.)

4

5 Q. Now I'm going to ask you to take a look at 587,
6 which appears to be an email.

7 A. 587?

8 Q. Yep.

9 A. Okay.

10 Q. Do you recognize the emails there, 587?

11 A. I have read this since this date, but it's only
12 been brought to my attention during this time period.

13 Q. Can you explain what this, what this email --
14 well, let's start, there's two emails, first off.

15 Initially there's an email from somebody named (WITNESS
16 #9) to (WITNESS #12) and you; correct?

17 A. Correct.

18 Q. (WITNESS #9), that's the person you identified
19 as your asset strategist?

20 A. That's correct.

21 Q. (WITNESS #12) was your boss?

22 A. Yes.

23 Q. And it says, "Updated P&I calendar effective
24 May 1st." What is a P&I calendar?

25 A. I don't know what she's referring to by P&I.
26 Patrol and inspection?

1 Q. Okay. Who is Warren Ma?

2 A. Warren Ma was a finance guy. I don't think

3 he's around anymore, but he was in charge of finances.

4 Q. Okay. It says, "All hours on each HQ calendar

5 have been updated to reflect proper targets as indicated

6 in the table below." Then there's the table below. Do

7 you see Table Mountain on there?

8 A. I do.

9 Q. Okay. What does BFU mean?

10 A. BFU. They've changed those MAT codes, so --

11 Q. Okay.

12 A. It's now BFZ.

13 Q. Okay. Because down below it says BFZ.

14 A. I don't know what those are.

15 Q. "Annual ground patrols, Table Mountain," and

16 2016 Units is zero?

17 A. I have no idea. That's a question for a

18 finance guy.

19 Q. All right. And then down below, "BFZ, detailed

20 ground inspections, Table Mountain, 9,919," with a money

21 target of 30.5, an hours target of .30.

22 Do you understand what any of that stuff means?

23 A. I wasn't familiar with the formulas that they

24 were using to get these so-called unit costs. That's

25 what they're referring to on this piece of paper.

26 Q. This is referring to the cost of actually doing

1 the inspections and patrols; right?

2 A. I believe it's referring to the unit cost for
3 doing the work.

4 Q. Okay. And that unit cost would be the proper
5 targets; am I reading that right?

6 A. Again, this is something that the finance
7 people are putting together. So they're indicating on
8 there that they're allowing so-called 1.2 minutes per
9 structure on like air patrols, so there's probably some
10 kind of formula they have to come up with these numbers.
11 But I was not involved in that.

12 Q. Okay. Why would they send this to you?

13 A. They probably sent it to everyone. It was
14 probably how they ended up coming up with these hours
15 allotted for the patrols, these different formulas.

16 Q. Okay. Now I want to go through some more
17 emails with you.

18 How are we doing with time? Everybody good?
19 Been going about an hour and a half. Anybody need a
20 break?

21

22 (Grand Jury Exhibit 579 was marked for identification.)

23

24 Q. All right. First up is going to be 579. Do
25 you have that in front of you?

26 A. I do.

1 Q. Do you recognize this email?

2 A. I have seen this email.

3 Q. Who is (WITNESS #11)?

4 A. (WITNESS #11) was one of our troublemen that
5 worked for Table Mountain. He's no longer with us there.

6 Q. Who is (WITNESS #10)?

7 A. He was another troubleman who worked at Table
8 Mountain, but he's no longer there.

9 Q. Okay. If you could read the emails out to us
10 and explain to us what they mean.

11 A. Okay. So it's, so this is a snippet of a
12 conversation. It's not a conversation in entirety. But
13 what I'm reading, it says, "(WITNESS #11)," it's based on
14 an email from me, "go ahead and charge yesterday to the
15 Volta if you want, and then you'll still have about 8
16 plus hours left to use today between the two of you."

17 Q. Okay. What is the Volta?

18 A. We have different lines named Volta. So this
19 email was probably based on a phone call that I received.
20 Oftentimes, the troublemen would call me and they'd want
21 to know if there were certain hours left on patrol. So
22 this could be the Volta Deschutes, it could be Clark
23 Volta. I would have to know the beginning of the
24 conversation to be able to determine that.

25 Q. Now, the subject of the email is CTNWD. Would
26 that be Cottonwood? And BENTON, number 2, do you know

1 which line that is?

2 A. That's just another one of our lines, but it
3 doesn't seem like it's even related to this response.

4 Q. Okay. But the Volta would be another
5 transmission line; right?

6 A. Most likely, yes. If it's referring to hours,
7 correct.

8 Q. And did you say that the 8 plus hours that
9 would relate to that allotment time?

10 A. So what would happen is the troublemen would go
11 out and they would physically do an inspection or an air
12 patrol. And then once they completed those patrols in
13 the field, they would have the paperwork part of it. So
14 it's two separate things, the field work and the
15 paperwork.

16 So when they came back in the office and they
17 completed all their work, they wanted to charge time to
18 complete the paperwork. And at that time they had kind
19 of this performance metric that they tried to meet. It
20 was really something that specifically (WITNESS #11) and
21 (WITNESS #10) and those troublemen back then, they felt
22 like they had to kind of adhere to these hours, so they
23 would ask me how many hours were left on these particular
24 patrols quite frequently.

25 Q. So -- but why would they be asking you -- if
26 they were doing an inspection on the Volta, why would

1 they be asking you about charging that inspection to the
2 Volta?

3 A. Because maybe they had already finished the
4 Volta in the field and they're wondering if there's hours
5 left on it to charge time spent doing paperwork.
6 Sometimes they could spend all day writing up these
7 notifications that we looked at earlier. Sometimes, you
8 know, it only took them like a few, few minutes,
9 depending on what they found.

10

11 (Grand Jury Exhibit 580 was marked for identification.)

12

13 Q. Okay. Let's go on to 581 [sic], another email.
14 Let's start with email on the bottom, an email from you
15 to (WITNESS #10) and (WITNESS #11), Tuesday, October 27,
16 2015. Do you recognize this email?

17 A. Where do you want me to start?

18 Q. Starting at the bottom and read up.

19 A. Okay. So that starts off with (WITNESS #22) --
20 is that what -- am I looking at the wrong thing?
21 Different piece of paper.

22 Q. Yeah, that's a different piece of paper. We're
23 going to have to look at that and see.

24 A. It looks like it's 580.

25 Q. Okay. Made a note of that, if you missed it,
26 it's 580.

1 All right. So 580. We've got the right one.

2 Do you recognize 580?

3 A. I do.

4 Q. All right. Starting with the first in sequence
5 emails on 580, can you read it to us and explain it.

6 A. So that would be starting on the bottom here.
7 So it says, "Hi, (WITNESS #10), (WITNESS #11), we've
8 reached our maximum hours on the Bridgeville Cottonwood,
9 we may be slightly over the allotted time, 95 hours total
10 versus 91.5 hours allotted. Time upload can't be
11 confirmed yet at this point. Please charge to something
12 else. Thank you."

13 Q. Okay. What is the Bridgeville Cottonwood?

14 A. It's another one of our lines.

15 Q. And 91.8 is the allotment for that line; is
16 that right?

17 A. It appears that way, yes.

18 Q. And at this point, 95 hours had been charged
19 against that inspection?

20 A. That's what it states.

21 Q. And then it says, "At this point, please charge
22 to something else." Explain to us what that means and
23 why?

24 A. So, again, I would get frequent phone calls
25 that generally started the conversation as to how many
26 hours were left on an inspection or air patrol, because,

1 again, they would go out and they would do the physical
2 work, and then they would have time needed or wanted to
3 write up all these notifications. So it looks like that
4 they were asking me how much time was left on this to
5 write up notifications.

6 And oftentimes, too, they would work these
7 detailed inspections or air patrols simultaneous, you
8 know, if the lines were next to each other. So they
9 might be working on two or three at once.

10 Q. All right. And then the second email up top,
11 can you read that to us and explain it.

12 A. So it says, "Update, based on the time upload,
13 we are at 85 hours. So that should be perfect. Not over
14 after all. Nonetheless, let's call it good so I can
15 close the patrol on Thursday."

16 Q. Okay. So, first of all, what's the time
17 upload?

18 A. So SAP uploads every night, and that's when it
19 captures the hours that may have been charged through
20 payroll. It uploads every night. And so you don't see
21 the true hours until the upload is complete.

22 Q. Okay. When you say, "Nonetheless, let's call
23 it good so I can close this patrol on Thursday," explain
24 that to us, please.

25 A. So I can't complete my work until they complete
26 their work. In other words, if I still have time to

1 enter for them, I can't close out a patrol. And, once
2 again, we have to differentiate the difference between
3 physically doing a patrol and writing up notifications.

4 So, again, there was like this performance
5 metric that they, these troublemen, were trying to meet.
6 They didn't want to, from a personal standpoint, go over
7 the hours. So this is just a conversation saying that if
8 you're done writing up notifications, let's do it,
9 because I need to close the patrol.

10

11 (Grand Jury Exhibit 581 was marked for identification.)

12

13 Q. Now let's go to 581. The real 581. Do you
14 recognize 581, the email chain?

15 A. Yes.

16 Q. All right. Who is (WITNESS #22)?

17 A. So (WITNESS #22) is my current supervisor.

18 Q. Who is Stacie Doyle?

19 A. Stacie Doyle was my clerical supervisor. She's
20 also been leading the Compliance group.

21 Q. And who is (WITNESS #6)?

22 A. (WITNESS #6) is one of our current troublemen.

23 Q. All right. So let's start again at the bottom,
24 because as we've discussed before, the --
25 chronologically, it goes bottom to top.

26 A. Okay. So this is dated September 25th, 2017,

1 and it's from (WITNESS #22) to me. It says, "Can we
2 ensure the helicopter cost was, in fact, split three ways
3 between the Tower Department using it on the
4 Caribou-Palermo structure, as well as sending it down to
5 Sac. for the Palermo Pease 19 over 40 insulator
6 emergency?" question.

7 And then my response to (WITNESS #22) was, "Hi,
8 (WITNESS #22). The helicopter costs --" I'm sorry, this
9 is not -- it's a little faint.

10 Q. Yep.

11 A. Oh, "The helicopter costs have not hit the PM
12 yet. Maybe we'll get lucky and they'll be split between
13 the other two jobs. I will follow up and let you know."

14 So, in other words, they hadn't billed it yet.

15 The Helicopter Operations Department is a
16 separate operation and they do all the billing for us for
17 these types of things.

18 So concluding this email, it looks like from me
19 to Stacie Doyle, I say, "Hi, Stacie. As we know, the
20 Helicopter Ops Department is not timely with the billing.
21 This is what sent to (WITNESS #22). regarding his
22 comments."

23 Q. So how are you involved with the helicopters
24 for the helicopter patrols?

25 A. So the air patrols are all done by helicopters.
26 And at the time, like back several years ago, we would

1 have to work with the local vendors to set up the
2 helicopters for the guys. Now we have our own department
3 and they do all the coordinating of the flights. And so
4 my involvement is that before I close out a patrol, say a
5 patrol is done, an air patrol, I got to make sure that
6 the charges have been billed on there. Sometimes there's
7 a delay in getting those charges billed because it's
8 controlled by a different department.

9 Q. Okay. What's a PM?

10 A. A PM is like an order number.

11 Q. So is that the unique order or job number for
12 each one of the inspections or patrols?

13 A. When we -- looking at a master maintenance
14 plan, each air patrol, each line, each ground inspection
15 has its own PM or order, yes.

16

17 (Grand Jury Exhibit 582 was marked for identification.)

18

19 Q. Let's move on to 582.

20 A. Okay.

21 Q. And, again, emails, (WITNESS #22), (WITNESS
22 #6), Stacie Doyle, and yourself.

23 So let's start at the bottom, and read them to
24 us and explain to us what's going on.

25 A. Okay. So this, the subject is the Caribou 2
26 line, which is a whole different line. It says, "Hi,

1 Stacie, per our earlier discussion regarding the
2 excessive and accumulative cost of the Caribou 2 ground
3 inspection, here are some of the plausible reasons the
4 costs are so high:

5 Helicopter was used to access poles that are
6 inaccessible. Can't walk on railroad tracks, and the
7 river blocks access, scope only from a long distance,
8 which is one sided;

9 Crew was used for one day to long-line into the
10 inaccessible poles."

11 In other words, we're using a helicopter, we're
12 dropping the guys down on a rope when we're referring to
13 long-line.

14 Another reason is the rugged terrain.

15 The fourth reason, we have a new troubleman for
16 the area.

17 And the fifth reason, "History of 'minimal
18 problems found' by previous T-men," which is the
19 troublemen, "which needs field confirmation for
20 inaccessible areas -- or location.

21 The inspection is assigned to (WITNESS #6), so
22 please reach out to him for additional questions."

23 Q. So let's stop right here. It sounds like
24 Stacie Doyle isn't real happy with how much, how long
25 this inspection is taking, is that --

26 A. Stacie Doyle was looking at the costs on this

1 particular inspection, obviously, and she's asking me
2 about it. And in looking at this email before, I'm
3 wondering where I had come up with all these reasons.
4 While I had evidently talked to our foreman who was
5 basically conveying the information to me, that's what I
6 recollect about it. But, yes, she was questioning the
7 excessive cost.

8 Q. Even more basic, why is Stacie Doyle asking you
9 why it's costing so much to do a, an inspection?

10 A. Because she was my clerical supervisor, and she
11 was in charge of compliance and things like that. If
12 you're going to use a helicopter, okay, if you're going
13 to long-line guys into rugged terrain, you're going to
14 incur some pretty hefty costs.

15 Q. Right. But I guess still goes back to the
16 question of wouldn't that be a question of (WITNESS #22)
17 and not a question for you as to why those costs are so
18 high?

19 A. I would love that. But maybe (WITNESS #22)
20 wasn't available, so they were hoping that I could get
21 the information probably from someone else, which looks
22 like I conveyed, but --

23 Q. All right. So let's read the continuation, the
24 later email, please.

25 A. Okay. It says, "Hi, Stacie." This is coming
26 from me to Stacie Doyle. "One more thing regarding this

1 detailed inspection. Historically, we were allotted 210
2 hours, and to date with a very thorough inspection we are
3 at 235 hours and near completion."

4 Q. 210 is what the company is telling you it
5 should be --

6 A. That's --

7 Q. -- correct?

8 A. Obviously, what was probably stated on the
9 maintenance plan.

10 Q. Right. 235 isn't enough, your guys are still
11 out there doing this inspection; right?

12 A. We're going over. But that's not untypical
13 either.

14 Q. Okay. And that's why, is that why the company
15 is, why you're writing the earlier email saying, "Hey,
16 this is why we're going so far --"

17 A. So you're talking about a specific patrol in a
18 specific year. We do a lot of patrols a year, so it's
19 just a generalization based on information that was
20 conveyed to me as to the plausible reasons why it was
21 expensive. Again, it was one of those lines where if you
22 can't come in on foot, then you're going to have to use a
23 helicopter and long-line.

24 Q. Right. But some of those things don't change
25 year to year; right?

26 A. Again, I'm not the geographic expert, and I've

1 not been out there, for example, to the Caribou 2 or any
2 of these lines, so --

3 Q. Right.

4 A. They can change, I'm sure.

5 Q. Right. But, for instance, the railroad tracks
6 don't go anywhere from year to year.

7 A. Correct.

8 Q. The river doesn't go anywhere from year to
9 year.

10 A. I agree.

11 Q. The mountains don't go anywhere from year to
12 year. So the accessability problems that are being
13 addressed here would be the same probably every year;
14 right?

15 A. Unless there was maybe a road that I'm not
16 privy to that washed out or something like that. But I
17 would say that that would be consistent.

18 Q. But if that were the case -- you said you got
19 this information from your, probably from your foreman;
20 right?

21 A. I believe I got it from (WITNESS #19), who was
22 then foreman, yes.

23 Q. Okay. If that were the case, wouldn't you have
24 expected that if you went to (WITNESS #19) and said,
25 "Hey, you know, these guys are on me because this
26 patrol's taking too long, this inspection is taking too

1 long. Why is it taking us so long to do it?" It would
2 be reasonable to expect that (WITNESS #19) said, we have
3 to do all this stuff because the road washed out?

4 A. (WITNESS #19) wasn't always our foreman. Our
5 foremans have changed a lot.

6 Q. Okay. But you said you think that you got this
7 information probably from (WITNESS #19) or somebody?

8 A. I had to have gotten it from someone like
9 (WITNESS #19), because I didn't know this about this
10 particular location. And I believe it was a conversation
11 with (WITNESS #19).

12 Q. Right. Like I said, the point is there's
13 nothing in there about a road washing out or some other
14 problem, it's basically the accessability problems here?

15 A. There are accessability problems based on this
16 email. But, again, it's a snippet of a conversation, so
17 I don't know if there's another conversation that gives
18 any other reasons.

19

20 (Grand Jury Exhibit 583 was marked for identification.)

21

22 Q. All right. So let's move on to 583. Do you
23 recognize 583?

24 A. I do.

25 Q. And please read to us and explain 583.

26 A. So it looks like (WITNESS #11), who was one of

1 our historical troublemen, he was one who frequently
2 called me like most every day. He was one who
3 specifically called me and was very concerned about the
4 hours on a patrol. And so was (WITNESS #10).

5 So this is an email from (WITNESS #11) dated
6 April 23rd, 2013. It says, "Hello, (WITNESS #21). How
7 about the Volta Deschutes? I was thinking we had way too
8 much time left on it."

9 And then I am sending back to (WITNESS #11),
10 "Hi, (WITNESS #11). Perhaps some hours did not get
11 uploaded prior to the payroll period closing today,
12 because as of now there are 105.5 hours on it, dot, dot,
13 dot, over. So let's just call it good with these, okay?"

14 And then he says, "Sounds great. Thanks for
15 the heads up. Appreciate the extra help."

16 And I respond, "No problem. Anytime."

17 So, again, it's a conversation in part. And
18 when I say "in part," we don't know what preceded this.
19 And he's asking me about the hours that are left on the
20 inspection. So most likely he wants to charge against it
21 to write up some notifications.

22 Q. But you're telling him you're at 105.5, so
23 you're over your allotment; correct?

24 A. They were, again, doing sometimes two, three
25 different patrols or inspections, and they would try to
26 utilize the time just to kind of comply with the hours

1 allotted. They didn't want to go over when they were
2 writing up notifications. So, again, there's a
3 difference between the physical patrols and the writing
4 up of notifications.

5
6 (Grand Jury Exhibit 584 was marked for identification.)
7

8 Q. All right. Let's move on to 584. Can you read
9 us this email and explain it.

10 A. Okay. So this is another one of our
11 troublemen, and his name is (EMPLOYEE #16). He's still a
12 troubleman with us today. It's from me to him. It says,
13 "Hi, (EMPLOYEE #16). Please do not charge anything else
14 to the Malin-Round Mountain number 2 quarterly air patrol
15 for 8/29/17. We can absorb further costs in the annual
16 air PM." Then I'm stating the number of that annual.
17 "For yesterday can I suggest?" And then I'm listing out
18 lines with hours.

19 And then there's a note that says, "On the
20 Malin-Round Mountain number 2 quarterly, previously you
21 posted 1 hour on 8/11/2017 for paperwork. Advise no more
22 charges."

23 Then says, "Add your switching and travel to
24 San Ramon. Let me know. Thanks."

25 So I'd like to explain something here. On our
26 500 kV lines, we do quarterly inspections, we do

1 quarterly air patrols. And so then we also have our
2 annuals, our annual patrols. And so this one, if we're
3 going to go out there and we're going to go on the Malin
4 and we're going to do an annual, we're not going to have
5 two different PM's to charge to, we're only going to
6 charge to one. So when I'm talking about absorbing the
7 costs, I'm saying that the annual PM is going to absorb
8 the cost for the quarterly. There's no sense in having
9 another PM to charge to because you're doing the same
10 work. You're reviewing the same line.

11 Q. Okay. But you said, "Please do not charge
12 anything else to the Malin-Round Mountain number 2. We
13 can absorb further costs in the annual air," and then the
14 PM. And that has its own order number; right?

15 A. I'm telling them that they should charge to the
16 annual because we don't need to be charging to two
17 different jobs when we're inspecting the same line.
18 That's a formality that we do.

19 Q. Okay. And then, "For yesterday can I suggest,"
20 and then what does that mean?

21 A. A lot of times these guys would turn to me if
22 they didn't do a paper timecard. It may have been a
23 conversation over the phone, because it looked like this
24 guy was going to be going to San Ramon. So he may have
25 called me, I don't know, because I don't have the
26 preceding conversation in front of me. But he may have

1 been wondering how to break down his time, considering
2 the conversation about the quarterly and the annual.

3 Q. All right. Going to switch gears here. So
4 this is probably a perfect time to take a break. It's
5 about five after 3:00, we've been going for over an hour
6 and a half.

7 GRAND JURY FOREPERSON: Okay. Let's take
8 break. Ten minutes?

9 MR. NOEL: Whatever you'd like.

10 GRAND JURY FOREPERSON: Fifteen? Fifteen.

11 I didn't admonish her.

12 MR. NOEL: Let's go ahead and do that.

13 GRAND JURY FOREPERSON: Okay. (WITNESS #21),
14 you are admonished not to discuss or disclose at any time
15 outside of this jury room the questions that have been
16 asked of you or your answers until authorized by this
17 Grand Jury or the Court. A violation of these
18 instructions on your part may be the basis for a charge
19 against you of contempt of court. This does not preclude
20 from you discussing your legal rights with your own
21 attorney.

22 (WITNESS #21), what I have just said is a
23 warning not to discuss this case with anyone except the
24 Court, your lawyer, or the district attorney. Do you
25 have any questions?

26 THE WITNESS: No.

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GRAND JURY FOREPERSON: Okay.

THE WITNESS: I understand.

THE COURT: Thank you.

(Break taken.)

GRAND JURY FOREPERSON: All members of the Grand Jury have returned from their break, and our witness is present as well.

(Grand Jury Exhibit 585 was marked for identification.)

Q. (By MR. NOEL) All right. Moving on to 585. Do you have that one in front of you?

A. I do.

Q. Okay. Who is (EMPLOYEE #1)?

A. (EMPLOYEE #1) is our steel engineer.

Q. Okay. Explain the email chain to us here, please.

A. Okay. I'm going to preface the conversation and say not only is she a steel engineer, she's in charge of the budget for road work. So this email refers to John Lynott who was in charge of the road work itself, but (EMPLOYEE #1) would manage the budget.

So the email starts off as an email from me to (EMPLOYEE #1), and says, "I don't coordinate the work for Table Mountain, I just process it or do things based on a specific directive from management. Oftentimes, I have

1 no idea regarding the particular details of the job, nor
2 would (WITNESS #9).

3 As far as this job, John Lynott or (WITNESS
4 #12) may be able to shed some light on the two road
5 contracts that got moved from TM31282658, work type code
6 374, Caribou Table Mountain, to 31295301, work type code
7 505, for the Caribou-Palermo." And it was for White
8 Construction.

9 "It looks like John Lynott asked," and I'm
10 getting a LAN ID of this Daniel Barstad. The four digit
11 LAN ID is specific to PG&E. And, again, it says, "It
12 looks like John Lynott asked DCEC Daniel Barstad to move
13 the 2017 charges totaling \$45,060.36 from one job to
14 another, but they're not for the same line," question
15 mark. "(WITNESS #12) has been on an extended vacation,
16 but will be back in the office next Monday. Your odds of
17 getting information from John Lynott would probably be
18 the best option right now. I'm sharing this accounting
19 problem with (WITNESS #22), who is our acting supervisor,
20 because we can't just move these charges back to a
21 completed 2016 job without affecting that calendar year
22 budget."

23 Q. So sounds to me like the problem is charging
24 work on one PM to a different one?

25 A. So, I don't know why everybody seems to think
26 that I'm the accounting expert. I didn't go to

1 accounting school. So I have a steel engineer asking me
2 about this particular job, and it appears that White
3 Construction, which was an outside vendor, did some road
4 work and that those charges, they were trying to move the
5 monies from one job to another job and in a different
6 calendar year. So I was questioning that, like what are
7 we doing? Because generally when we move monies, it has
8 to be for the same line. It's not for two different
9 lines. So I was really confused with what they were
10 doing here.

11 Q. So this \$45,060.38 was originally charged to
12 Caribou Table Mountain with a PM number, then it was
13 moved to Caribou-Palermo with a different PM number; is
14 that it?

15 A. That's what it states, but it was my
16 understanding from further conversation that those two
17 lines kind of intersect so that the road was kind of like
18 an intersecting road. But, nonetheless, I haven't seen
19 it where you start with one job and then you move it into
20 another unrelated line.

21 Q. And then let's go up to your last response to
22 (EMPLOYEE #1).

23 A. All right. So you don't want me to read what
24 she wrote to me?

25 Q. It's not important.

26 A. Okay. Then I said to her, to (EMPLOYEE #1),

1 "Just curious how we justify moving money from a 230 kV
2 line to a 115 kV line that's not in the same proximity or
3 intersect via a right-of-way. Never seen this before."

4 Q. Okay.

5 A. And, again, I just said that I heard that they
6 did somehow intersect. So I don't, I don't know. But
7 this was, this was a questionable, hadn't seen this done
8 before where we moved, you know, monies from one to
9 another.

10

11 (Grand Jury Exhibit 586 was marked for identification.)

12

13 Q. Let's move on to 586.

14 A. All right.

15 Q. Do you recognize 586?

16 A. I do.

17 Q. Now, what does 586 pertain to?

18 A. Let me refresh my memory real quick.

19 Q. Okay.

20 A. Okay. So I'm sending an email to (EMPLOYEE
21 #16), who is one of our troublemen. He was also the
22 fill-in supervisor for (WITNESS #12) frequently, as he
23 would be upgraded from a troubleman to a supervision
24 position.

25 Okay. So I'm putting, "Hi, (EMPLOYEE #16),
26 (WITNESS #1) will fly the one southern air patrol due in

1 August when we schedule maintenance using helicopters on
2 August 26 or 27, 2014. This will be more cost effective
3 than having (WITNESS #10) or (WITNESS #11) doing it,
4 since we will be working in the general vicinity and can
5 knock this out in a very short time, along with segments
6 of the Caribou-Palermo line that are inaccessible by
7 foot. Hope this is agreeable with you."

8 So this line is, Plumas Sierra Tap, is like a
9 very, very short line, like minimal structures on it.

10 And then I sent an email to (WITNESS #12),
11 "FYI, just keeping you in the informational loop."

12 Q. So it sounds like this is pertaining to the
13 2014 detailed inspection of the Caribou-Palermo?

14 A. It doesn't say the detailed inspection. I can
15 assume that. We have had other work out there during
16 that time period.

17 Q. Okay. All right. And it's talking about the
18 Caribou-Palermo that are inaccessible by foot and setting
19 up helicopters for that; correct?

20 A. Correct. But, again, I don't know if it's
21 regular work or if it's, you know, like an inspection or
22 an air patrol that's annual.

23 Q. All right. Let's jump ahead to November 8th,
24 2018. Were you working that day?

25 A. I was.

26 Q. When did you become aware of the Camp Fire?

1 A. When I stepped out the door and I saw the
2 plumes of smoke.

3 Q. When did you become aware that the Camp Fire
4 may have been started by PG&E equipment?

5 A. When a public statement was made really. There
6 was always speculation, so I don't know the exact
7 confirmed date that it was public that we may have had
8 involvement.

9 Q. When did you become aware that the
10 Caribou-Palermo line may have caused it?

11 A. Okay, so the Caribou-Palermo I had heard that
12 it had started there. And I became aware of it when my
13 supervisor asked me to pull inspections and air patrols,
14 historical inspections.

15
16 (Grand Jury Exhibit 588 was marked for identification.)
17

18 Q. Okay. 588 is an undated email that appears to
19 be from you to someone named (WITNESS #22). Do you
20 recognize this email?

21 A. Well, as it's in front of me, it must be to
22 (WITNESS #22), who was my supervisor.

23 Q. Would he have been the person you just said
24 asked you to look into the patrols?

25 A. (WITNESS #22) did ask me when the fire started
26 to get the historical air patrols and inspections. He

1 asked for specific ones. I don't recall exactly which
2 ones I pulled. As well as Stacie Doyle, who was my
3 clerical supervisor. And she's also the compliance
4 person. So she asked for the same information.

5 Q. Do you know how Stacie Doyle knew?

6 A. Because she's in Compliance, so as soon as
7 there's something of that magnitude, she gets a phone
8 call.

9 Q. So read us your email here and explain it to
10 us.

11 A. All right. So the email reads, (WITNESS #22),
12 the last annual air patrol was split between two dates,
13 9-11-18 and 9/19/18, with two findings." And then I list
14 what those findings were.

15 "I've researched the detailed inspection and
16 suspect it was done in 2014, but there's no file for that
17 line."

18 At one time, we had people come in here and
19 rearrange all our files; it was a mess.

20 "I'm looking to see if the detailed inspection
21 was misfiled. We've done air patrols up to that year.
22 Sorry for the delay of information. I'll get back to you
23 on the ground inspection."

24 So I'd like to add to that, when I'm
25 referencing this file not being found, we did have some
26 contract people come in to PG&E. We were trying to

1 standardize our filing system, and so we contracted these
2 people out. And they did end up misfiling a lot of our
3 stuff. So we had to go through everything again to try
4 to get it back in line. And so, obviously, this was
5 temporarily missing. We did find it.

6 Q. Okay. So you did eventually find the detailed
7 inspection for the Caribou-Palermo?

8 A. Yes.

9
10 (Grand Jury Exhibit 589 was marked for identification.)

11
12 Q. Next up is the email chain 589.

13 A. Oh, it's the continuance. So along that line,
14 the email is from me to (WITNESS #22), my supervisor.
15 "Good news, the Caribou-Palermo 2014 patrol was misfiled.
16 We completed the last detailed inspection in 2014. There
17 were a lot of priors, namely connector tags. There were
18 four new findings, which all, which were all insulators
19 in the colon section of the line."

20 So, so to explain that, we have, where the line
21 takes a different turn, we identify it with like little
22 colon marks when it takes a turn. We also identify it
23 with like a semicolon when it goes a different direction.
24 So we've got a straight line, and then when I refer to a
25 colon, just so you know what that is.

26 Then the email continues on to say, "Let me

1 know if I can further assist. Will be getting a
2 materials delivery tonight. Do you want me to stay for
3 the delivery? Please confirm."

4 Q. All right. So you have in front of you Exhibit
5 No. 167. Should be underneath the stuff on your left, I
6 believe. It's a big packet.

7 A. It's a part of this detailed? Oh, yes. Okay.
8 Got it, I believe.

9 Q. Do you recognize Exhibit 167?

10 A. So this is the Caribou-Palermo, and it's the
11 2014 detailed inspection.

12 Q. The entire report? Is it the entire report?

13 A. Well, based on something that I saw earlier,
14 it's missing a page, but I didn't know that until earlier
15 today. It's missing page 38.

16 Q. That's the entirety of the report that you
17 found somewhere misfiled on November 8th?

18 A. Yes.

19 Q. Where did you eventually find it?

20 A. It was filed. So the filing system has kind of
21 morphed into different formats. There was a time where
22 we actually had folders like, you know, five-page kind of
23 folders where we would file the patrol. Then we'd file
24 like non-routine patrols in one section. We'd file
25 completed tags.

26 So this I don't recall specifically. It was

1 probably in one next to it. Just kind of -- I don't
2 remember specifically where I pulled it, but it was right
3 in the close proximity.

4 Q. So this front page that refers to Operation
5 Control Ticket, who generates this page?

6 A. I print this page out from the maintenance
7 plan, from the annual maintenance plan. It's part of the
8 whole patrol.

9 Q. Okay. Explain to us how to read this.

10 A. What do you mean? Like --

11 Q. How do you read this page? What does all this
12 information mean?

13 A. Okay. On the top, every detailed inspection
14 and/or air patrol has its own PM number. So we start off
15 with an order number that's specific to this particular
16 detailed inspection. It names the line we're talking
17 about, the Caribou-Palermo. We have a start date of
18 August 30th, 2014, and an end date of August 31. So this
19 was expected to be completed by the end of August.

20 I wrote in here, "Detailed Inspection," so it
21 stood out. That's what I normally do. It's also listed
22 down in the bottom here. That's about the summary of the
23 page. It does have Stacie Doyle's name on there since
24 she was kind of the lead of this work. And it has her
25 telephone contact.

26 Q. Okay. Who is SRF5 partner?

1 A. That is Stacie Doyle.

2 Q. So how is Stacie Doyle a partner? Is she
3 actually out there doing the inspections?

4 A. No. She's assigned the clerical work. She's
5 the one in Compliance that's in charge of -- all the
6 asset strategists would work under Stacie Doyle. She was
7 like the lead.

8 Q. All right. So let's go over to I think next
9 page. The Transmission Line Inspection Data Sheet. Do
10 you recognize that document?

11 A. Yes.

12 Q. Is your writing anywhere on that document?

13 A. Yes, in several spots.

14 Q. Okay. Where?

15 A. So at that time when, as I explained earlier,
16 we get the paper template, we'd have to enter that
17 information into SAP, and that would generate a
18 notification number. So my handwriting is listed on the
19 notification number on the far right-hand side. That's
20 my handwriting.

21 And then down where there's a stamp near the
22 bottom, my handwriting is also, "Confirmed to DOCC."
23 That's the date that the patrol was supposedly finished.

24 "Add/delete equipment," that is my writing
25 there.

26 And then on the stamp where it says

1 "Notification," that's when all this was closed.

2 "9/2/14," that's my handwriting.

3 "Equipment changes," it says that I sent an
4 email to (WITNESS #9). And that's also my handwriting.

5 Q. What about this up here where it says the
6 "Existing"?

7 A. Oh, that is mine, yes.

8 Q. What does that mean?

9 A. So when the guys go out in the field, the whole
10 objective of doing a detailed inspection or an air patrol
11 is that they find new problems out there. And so in this
12 particular scenario, it looks like we already had an
13 existing tag on the structure that's referencing colon 26
14 over 215. And so instead of that being a new finding,
15 there was already an existing tag. So that notification,
16 notification number was existing, and then the others
17 underneath it were new findings.

18 Q. All right. Let's go on to the next page. What
19 is this page?

20 A. So every time a troubleman goes out to do a
21 detailed inspection or an air patrol, I run a report on
22 the existing notifications. We call it "priors." And
23 those priors go into the patrol, and they reference them
24 to see if there's tags already existing for a particular
25 problem. So this is a prior list.

26 Q. This is something that you generate?

1 A. It's something that's generated through SAP.
2 It's a report that you can generate through SAP to
3 capture any existing tags.

4 Q. So going back to where we started with the tags
5 that are generated by the troublemen in the field, they
6 bring those back, they enter them, and then you enter
7 them into the SAP system; correct?

8 A. Repeat that.

9 Q. The troublemen generate the tags, they either
10 write out or go into the computer and print out
11 notifications, the corrective work forms, that then come
12 to you to get entered into SAP; correct?

13 A. One way or another, yes. Either handwritten or
14 the typed-up template is given to me.

15 Q. Then this list is based upon what you've
16 entered in SAP; correct?

17 A. What I entered in SAP or -- we have different
18 departments. So we are, once again, identified as TLN.
19 That's our planner group. So you're going to get a
20 combination of notifications on the priors. You're going
21 to get stuff from our vegetation department. You'll get
22 road tags. You'll get tower tags. We get a lot of
23 different kind of tags.

24 Q. Okay. So going back to the previous page, the
25 Transmission Line Inspection Data Sheet, you said you had
26 written on colon 26 over 215 "existing," which would

1 indicate that that was a preexisting tag; is that
2 correct?

3 A. That's what it says.

4 Q. Okay. And do you find that tag on this list
5 someplace?

6 A. And, now, you have to be specific about when
7 that tag was worked. That tag could literally be worked
8 overnight, it could be worked in a two-, three-day time
9 period. So it depends on when I run these priors as to
10 when they actually worked the tag.

11 Q. Okay. So how far in advance of the patrol or
12 inspection do you run the priors?

13 A. We try not to run them until they're, you know,
14 ready to go out and do them, because it's at their
15 discretion that they go out and work these patrols. So
16 if we run these three weeks in advance, it may change,
17 you know. So now we've tried to do it about a week
18 before.

19 Q. But the existing tag for 26/215 wasn't on the
20 list when this was printed; correct?

21 A. Well, let's look at the priors. I don't know
22 unless I researched it. That's the way it appears. But
23 maybe it got worked from the time I ran it.

24 Q. So it wasn't on the priors list when you ran
25 the priors, so then would that have been something that
26 would have been added to the list, notification, that

1 would have gone out after the list was compiled or
2 printed and then --

3 A. You're asking me about something that occurred
4 in 2014. What I would have to do to properly give you an
5 answer is look up the notification number and look at the
6 date in which it was created and look at the date in
7 which it was worked. I don't know why it's not appearing
8 on that list.

9 Q. Okay. So when the troublemen go out and do
10 these inspections or patrols, sometimes does it occur
11 that assets are moved or missing or out of service?

12 A. It's their responsibility when they're doing
13 the patrol to let us know. As you go through, and we'll
14 get to that in a minute, there's an object list which
15 lists all the equipment numbers, and it's part of their
16 job when they're out there that they look at those
17 particular structures. And if there's something that's
18 changed in the field, they should let us know, yes.

19 Q. Okay. What's the process for that to occur?

20 A. So via the detailed inspections, because we're
21 not going to do that by air, because you're going to be
22 getting out and assessing it. I mean, you assess things
23 differently by air. You're not like -- you're looking at
24 it from an aerial standpoint, but you're not looking
25 right at the structure. You look at things differently
26 when you're on the ground. But via a patrol, if a

1 troubleman goes out, when he's done with a patrol, he'll
2 come back and he'll let me know that there's certain
3 things that need to be -- like equipment needs to be
4 changed or equipment is missing.

5 And so then what we do is we generate what's
6 called an "RW notification." And that's to our asset
7 strategist group so that they update the maintenance plan
8 so that next year when our guys go out, that those things
9 are corrected.

10 But mind you, not all the time -- it's not just
11 the troublemen's responsibility, it's also a
12 responsibility with engineering and/or supervision to get
13 these things conveyed.

14 Q. What about the Tower Department?

15 A. The Tower Department has its -- you know -- I
16 don't work the Tower Department, but they should have the
17 same protocol where that information is conveyed.

18 Q. So if the Tower Department goes out and drags
19 the tower away and it's no longer there, they should be
20 putting in the information to update this; correct?

21 A. You would think that engineering would be on
22 top of that and have that taken care of. Because if the
23 whole tower goes away, I'm sure the steel engineer's
24 involved.

25 Q. All right.

26 A. But let me explain something else.

1 Q. Go ahead.

2 A. I think it's important to note that steel has a
3 different cycle than wood. So when we're talking
4 specifically about a maintenance plan, that maintenance
5 plan, like steel, it may come out then five years, you
6 know. So if something happens in the interim and it's
7 not identified via a detailed inspection, and it's
8 identified in a different manner, then that asset would
9 not have been changed via our troublemen and an RW
10 notification. I don't know if I'm making sense.

11 Q. That's a very good point. So you're familiar
12 with the *ETPM*, correct, and the inspection cycles that
13 are set forth therein; right?

14 A. I am. The *ETMP* manual is changing constantly.

15 Q. Right. But the *ETMP* manual, isn't it true,
16 mandates that wood transmission poles, so wood poles
17 being used to support transmission lines, of 115 or
18 greater, have to have a detailed inspection of every two
19 years; correct?

20 A. Not steel.

21 Q. No, wood.

22 A. Wood is every other year.

23 Q. Yes.

24 A. We either do a ground or we do an air.

25 Q. So six big steel poles, steel towers,
26 disappeared in 2012 and were replaced by wooden, by 15

1 wooden poles, they probably should have been getting
2 detailed inspections; right?

3 A. I would have to look specifically at the line
4 that you're talking about. That's something that would
5 involve engineering, such as Henry Ho, Kichi Maximura
6 (phonetic), those big projects. I think you're leading
7 up to like a horseshoe.

8 Q. We're talking about -- we can go back to here.
9 When did you start with Table Mountain?

10 A. 2012.

11 Q. When in 2012?

12 A. I started ironically on April Fools' Day.

13 Q. So you were there on December 21st, 2012?

14 A. Yes, I believe I was.

15 Q. Do you recall on December 21st, 2012, a large
16 section of the Caribou-Palermo line collapsing?

17 A. Take that back. Maybe I wasn't there. My
18 father was very ill that year, and he died January 7th,
19 so maybe I wasn't around.

20 Q. Okay. All right. I'm very sorry.

21 Were you aware that a portion of the
22 Caribou-Palermo line collapsed in December of 2012?

23 A. By you telling me that. But specifically, we
24 work on so many different lines and have so many
25 different things going on, I know that's a monumental
26 thing, but only by you stating it does it bring back any'

1 type of memory.

2 Q. Okay. But that's the kind of thing that should
3 be reflected in here; right?

4 A. What's that?

5 Q. You know, when you've got, for instance, tags
6 22/188?

7 A. Those are all connector tags. Those are all
8 voltage connector tags.

9 Q. Exactly. But 22/188 fell down on December
10 21st, 2012.

11 A. See, you know that, but I don't know that.

12 Q. Exactly. And you're the one that's supposed to
13 know that; right?

14 A. I am not --

15 Q. Because you're the one who is putting this
16 information in SAP?

17 A. No, I'm not supposed to know that, because I am
18 just running that --

19 Q. Right.

20 A. -- for every detailed and air inspection. And
21 mind you, we've got about 118 of them. I'm only --

22 Q. Right. But if your troublemen are out there
23 doing their jobs, they should be recognizing that these
24 towers are all missing and that they're listed -- we'll
25 go on to the Transmission Line Object List.

26 A. And let's base that on when did they go out

1 there? Because steel has a different cycle. When did
2 this happen, and when did they go out there?

3 Q. Well, I'm telling you that this happened on
4 December 21st, 2012 --

5 A. Okay.

6 Q. -- on the Caribou-Palermo. Somehow in 2014
7 those towers were inspected. In 2014, those towers show
8 up in your priors list.

9 A. What's showing up on the priors list?

10 Q. Towers that no longer exist.

11 A. You mean the connector tags?

12 Q. Yeah. There's a tag in there -- or there's a
13 notification in there that says --

14 A. Those tags are going to show up as priors until
15 they're actually worked. So logic tells me --

16 Q. But the tower is gone. The entire section of
17 line is gone. It's no longer there to be worked.

18 A. Okay. Well, then if nobody's worked the tag,
19 they're going to exist. That's not something that I'm
20 going to monitor.

21 Q. Okay.

22 A. It would come from engineering. And then
23 engineering should have followed up with the removal of
24 those existing tags.

25 Q. Or the guys who did the inspection in 2013 --

26 A. Okay.

1 Q. -- could have noted that you were missing those
2 on their report; correct?

3 A. If they were missing in the field, then the
4 troubleman's responsibility is to identify them.

5
6 (Grand Jury Exhibit 596 was marked for identification.)

7
8 (Grand Jury Exhibit 597 was marked for identification.)

9
10 Q. All right. Let's go back to time stuff. And
11 direct your attention to 596. We'll go through this.
12 597.

13 We've already talked a little bit about
14 timecards. You said you're the one who processes the
15 timecards; correct?

16 A. Yes.

17 Q. I want you to take a look at 596 and 597 and
18 kind of walk us through them. Are you finding them in
19 there?

20 A. There we go. 596, yep.

21 Q. And walk us through the timecards -- I just
22 pulled a couple of timecards -- how to read them and the
23 information and how you use it.

24 A. Okay. So I'm the timekeeper for Table Mountain
25 Transmission. I'm the timekeeper, well, historically for
26 approximately 10 to 12 guys, for the crew, and for the

1 troublemen. So everybody submits a timecard. They
2 submit them either handwritten or via email. These
3 particular timecards are for a gentleman named (WITNESS
4 #1), or (WITNESS #1), as he's referred to. And then it's
5 my job to enter this timecard via SAP. And that's the
6 summary of it.

7 Q. Okay. So when we go down, on notes and
8 comments, this timecard -- well, first of all, what date
9 was this timecard for?

10 A. It states July 24th, 2014.

11 Q. And there's a number written in here, comments,
12 CDLALO9 something something?

13 A. So every guy has their own little twist of
14 telling me or trying to help me differentiate whether
15 they're doing crew work, whether they're doing air or
16 ground inspection or patrol. And namely I need to try to
17 figure out if the guys are switching. So that log number
18 is my cue with this particular gentleman that there was
19 some switching going on. And you can see that on the
20 bottom line where it says SWTCHO, that's also synonymous
21 with switching. Whereas the other first line is actual
22 work, which is different.

23 Q. Okay. So explain the notes/comments section
24 down here for us.

25 A. So most of the guys -- well, all of the guys
26 historically have been working ten-hour days. Some of

1 them have Fridays off, some of them have Mondays off. So
2 they work four tens. So what we're seeing here is ten
3 hours. The first five hours it just says that he was at
4 the Caribou-Palermo. To me, I don't know if that's a
5 regular job, I don't know if that's a detailed inspection
6 based on what I'm looking at, but it references an order
7 number, which, as we know now, is the inspection for that
8 particular year.

9 Q. That 41980167, that's the PM number, the order
10 number, for the 2014 detailed inspection?

11 A. Correct.

12 Q. Okay.

13 A. So then underneath it it says Colgate Palermo
14 switching. So after he worked on the patrol for seven
15 hours, he's telling me that he went out and he did some
16 switching, and he did it on a different line, and he
17 charged it to a different order.

18 Q. Okay. So according to this, on July 24th, '14,
19 (WITNESS #1) charged 7 hours from 1630 to 1130 and then
20 1200 to 1400 to the Caribou-Palermo detailed ground
21 inspection 41980167?

22 A. That's what he's stating.

23 Q. Okay. And then the next one, 597, do you see
24 that?

25 A. Yes.

26 Q. You have that?

1 A. He's charging 10 hours to the Caribou-Palermo
2 same detailed inspection on July 29th.

3 Q. Okay. So we started to talk about this
4 earlier. The information with the, from the timecards --
5 you're the timekeeper; right?

6 A. Yes.

7 Q. And the information from the timecards not only
8 goes into the payroll system, it goes somewhere else;
9 right?

10 A. Well, it gets charged to whatever order.

11 Q. Okay. That's what I'm going to. Is that in
12 the SAP system?

13 A. We enter the order in the SAP system where we
14 enter payroll, yes.

15 Q. And why does the payroll, why is there pay
16 records or timecards stuff go into SAP, go into the
17 orders?

18 A. So that guys can get paid and so that we can
19 allocate the charges to the appropriate orders. Now,
20 mind you, I want to say something. There's certain
21 people, like myself, I'm a non-billable employee. I
22 don't charge to a job every day. I go to work and I have
23 a code that I put in, and it just defaults to what we
24 call a PCC, which is just a generalized charge.

25 These troublemen and these linemen, they go out
26 and if they work specific jobs, then their jobs are

1 allocated based on the job numbers that they put in
2 there.

3 Q. Okay. Are there ways for you to go in and
4 check who has been working on different projects and how
5 many hours they've spent on that project or they've
6 billed to that project?

7 A. Yeah. If you go into SAP and if you go into
8 the cost of the job, you look at the labor, and it will
9 give you a list of who charged to the job on what
10 particular day.

11

12 (Grand Jury Exhibit 590 was marked for identification.)

13

14 Q. I'm going to back up here to 590. Should be
15 there somewhere in front of you.

16 A. Which I can't read.

17 Q. It's difficult to read. And we can blow it up
18 here.

19 A. I can see it better there than here.

20 Q. That didn't help, did it? Okay. Let's get out
21 of there.

22 A. I can see that.

23 Q. And you're more than welcome to get up here and
24 walk around and use this.

25 Have you seen 590 before?

26 A. I haven't read it because it's too small.

1 Q. Okay.

2 A. So --

3 Q. Do you want to take a minute here where it's

4 blown up on the big screen?

5 A. Okay.

6 Q. What is 590?

7 A. So when we do payroll, we can go into -- it

8 looks like the display of all the time that was entered.

9 It gives us -- if I put display and I put a date range in

10 there, it should show all the jobs and the accounting,

11 what everybody got charged.

12 Q. So is this 590 a list for a certain person?

13 A. Yes. It looks like it's for (WITNESS #1).

14 Q. Okay. Who is EEEP4?

15 A. That would be me.

16 Q. You were talking earlier, I think you referred

17 to a LAN ID?

18 A. Yes.

19 Q. That's your LAN ID?

20 A. Everybody at PG&E has a specific LAN ID,

21 four-digit, and that's mine.

22 Q. And then in this column here it says "General

23 receiver." That seems to be PM numbers; correct?

24 A. Yes.

25 Q. Does this chart show all of (WITNESS #1')

26 billed hours by PM number for August, or at least some of

1 them?

2 A. I'm looking at the date range.

3 Q. Starts down here at the very bottom, on line
4 54, August 1st, 2014. And it ends on line 2 with August
5 29th.

6 A. I can assume that. I mean, there's 31 days in
7 August, but if that's what it states, I'm sure it's
8 capturing it all.

9 Q. Okay. Do you see the PM, the order number, for
10 the Caribou-Palermo detailed inspection on here?

11 A. It ends in 0167. Can you point it out to me?
12 Because I don't --

13 Q. It's right there.

14 A. Okay.

15 Q. On line 52. I'm still looking. If you see it
16 -- there's another one. On line 45, 46. Feel free, if
17 you find any, tell me. I'm still looking for them.

18 A. Well, this is August. And based on the
19 information that you presented to me with these
20 timecards, some of it would have been in July.

21 Q. Okay. The only two that show up on here, looks
22 like from what I can see, are August 6th and August 7th.
23 And that's a grand total of -- am I reading this right?
24 -- 5 hours and 8 hours? Or 5 hours and 3 hours, so that
25 would be 8 hours?

26 A. The way it appears, yes.

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(Grand Jury Exhibit 591 was marked for identification.)

Q. Okay. All right. So let's move on. Same thing, 591. Like I said, feel free to get up and move around and look at this thing. If you want to play with this thing, pen's right here; circle things.

What is 591?

A. Okay. So now it's for (WITNESS #23), or (WITNESS #23). He's the other troubleman. And it looks like it's a summary of his time charged for the month of August.

Q. Again, do you see the order number for the Caribou-Palermo on there?

A. Well, you've got it in yellow. I see it there.

Q. So right here in yellow?

A. Here. Here. There's one here. All right.
So --

Q. All right. So, looks -- looking, we've found four all together; right? So am I reading this right? So that's 5 hours on line 60 on August 6th; 10 hours each on August 13th and August 14th, and that's lines 39 and 38; and then 3 hours on August 18 and line 34. Does that appear correct?

A. That's what you're showing me, but --

Q. And that's what I'm asking, are those the only

1 ones we could find?

2 A. No, there's one here.

3 Q. Okay. So you found one on August 7th and line
4 56. Anything else?

5 A. No. That looked like it.

6 Q. Okay. So all together, 38 hours; is that --

7 A. That's the way it appears, yes.

8 Q. So we got 3 plus 10 plus 10 -- 23 -- plus 10 --
9 33 -- plus 5 -- 38; right?

10

11 (Grand Jury Exhibit 592 was marked for identification.)

12

13 Q. Okay. Next up, number 592. Do you recognize
14 that one?

15 A. Now we're jumping into a different calendar
16 year, which I don't understand, because the year on this
17 is 2015 in July.

18 Q. Right.

19 A. So that wouldn't even be applicable to this.

20

21 (Grand Jury Exhibit 593 was marked for identification.)

22

23 Q. Yep. And 593?

24 A. (EMPLOYEE #16) was a crew member. And this is
25 for (EMPLOYEE #16). And he is charging 5 hours to this
26 particular inspection.

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(Grand Jury Exhibit 594 was marked for identification.)

Q. 594?

A. (EMPLOYEE #15). (EMPLOYEE #15) was also our, one of our foremans at one time. He's charging 5 hours to this detailed inspection, as well as -- mind you, now these guys are charging to other orders, also. And it's come to my attention that the order on the bottom, and I'm not sure about the other order, but the one that begins with 3 is also work on the Caribou-Palermo. It's like regular work, not the annual inspection.

Q. Right. But he's specifically charging to 41980167, which is the Caribou-Palermo detailed --

A. Correct.

Q. -- ground inspection?

A. Yep.

Q. As is, the same is true with (EMPLOYEE #16)?

A. Correct.

Q. As a matter of fact, (EMPLOYEE #16)'s and (EMPLOYEE #15)'s match; right?

A. Yes.

Q. (EMPLOYEE #16) is also charging that 3107 number?

A. That's correct.

Q. But specifically charging 5 hours to 41980167?

1 A. That's correct.

2 Q. That is specifically the Caribou-Palermo
3 detailed inspection?

4 A. For 2014.

5 Q. For the 2014, thank you.

6

7 (Grand Jury Exhibit 595 was marked for identification.)

8

9 Q. Next up.

10 A. (EMPLOYEE #13). He was also a crew member.

11 Q. I'm sorry, this is 595.

12 A. Pardon?

13 Q. This is number 595. I forgot to identify it
14 for you.

15 A. I see.

16 Q. We have to keep a record for her as to what
17 we're talking about.

18 A. So this is a summary for (EMPLOYEE #13)
19 pertaining to the detailed inspection. He charged 5
20 hours as well as the same hours to the other two jobs
21 that the other crew members did.

22 Q. All right.

23 A. Now, mind you, we were missing (WITNESS #14).
24 (WITNESS #14) was also out there, but this was
25 referencing the incorrect summary for 2015, so we would
26 need to add his hours in as well.

1 Q. Yep.

2

3 (Grand Jury Exhibit 598 was marked for identification.)

4

5 (Grand Jury Exhibit 599 was marked for identification.)

6

7 (Grand Jury Exhibit 600 was marked for identification.)

8

9 (Grand Jury Exhibit 601 was marked for identification.)

10

11 (Grand Jury Exhibit 602 was marked for identification.)

12

13 (Grand Jury Exhibit 603 was marked for identification.)

14

15 Q. Okay. So now I want to move on to these

16 handwritten notes that start off with 598 and go all the

17 way to 604. I'm sorry, 603. You should have them right

18 there in front of you.

19 A. 598 to 604?

20 Q. 603. 603.

21 A. Okay.

22 Q. Do you recognize those handwritten notes?

23 A. So these are my handwritten notes.

24 Q. What do these notes -- well, let's start off

25 with 598, the first page. Walk us through what these

26 notes mean.

1 A. So I think it would be easier, and I don't mean
2 to change it up, but I think it would be easier if we
3 started on 600 --

4 Q. Okay. Go ahead.

5 A. -- to better, to better explain to these folks
6 the significance.

7 Let me first start by saying that when the Camp
8 Fire started, I was asked to pull detailed inspections
9 and air patrols for (WITNESS #22) and Stacie Doyle. And
10 when I did that, I looked at this particular inspection,
11 and I could obviously see that there were discrepancies
12 like with the dates. So I took it upon myself to try to
13 figure out what had actually happened on this patrol.
14 And so that's what these notes are referring to.

15 And so if we start with Exhibit 600, what I did
16 is I first looked at the detailed inspection itself, the
17 order number, and I went into the costs, and I wanted to
18 know who charged to this particular job and what dates.
19 And so if you look at Exhibit 600, we'd start off with
20 (WITNESS #1). And so all the dates there were the dates
21 that he charged the job. And then we've got the crew,
22 which was a four-man crew. And then we've got (WITNESS
23 #23), who was the other one assisting on this particular
24 inspection.

25 So what you're looking at is -- that's pretty
26 fuzzy, but the hours charged, and then there's some

1 negated hours as well, specifically on (WITNESS #1).

2 Do you want me to continue?

3 Q. Yes, go right ahead. You can explain it.

4 A. So that's really the summary of that first
5 sheet is that I was just trying to identify who charged
6 to the job and on what dates by looking at the order.

7 Q. So how did you find, for instance, who charged
8 to the job? How did you get that information?

9 A. So if you go into the order itself, which is an
10 SAP, there's a place where you can look at the actual
11 costs. And then you would click on the labor that's
12 related to that job, and it will list everybody who's
13 charged from timekeeping. It drops in there, so you can
14 see that.

15 Q. Okay. Go ahead. Where do you want me to go to
16 next?

17 A. Okay. So Exhibit 599 is just, it was like a
18 partial. I had to keep all notes. So this was just a
19 partial of 600, of Exhibit 600. It's kind of
20 repetitious.

21 So then we can move to 598. And so what we
22 have had historically at Table Mountain is we've got a
23 calendar for the work that the crew is planning to do,
24 and then we've got a calendar for all of the switching
25 that the troublemen were scheduled to complete. And so
26 this particular list, what I was looking at were those

1 two historical calendars to try to figure out what was
2 going on on a particular day.

3 And the very top entry, 8/25 -- when I say
4 "CARPAL," that's Caribou-Palermo. So the crew was to
5 call working out there that day, as well as 8/26. They
6 were working on that line. But it's a different number
7 up there than the detailed inspection, so they probably
8 had work simultaneous with this inspection on that same
9 line.

10 And then it shows that the crew was out there
11 on 8/27.

12 So I was looking for any kind of specific
13 information that I could glean from those calendars. We
14 were doing work on 8/29 on the Table Mountain Butte line.
15 Then it showed on 8/1 there were fires, and they were the
16 Bald and Eiler fires, and they were up in the Burney
17 area. They started on 8/1.

18 And if you proceed down the list, you'll see
19 that on 8/5 specifically all of the crew went to Burney
20 because of the fire. At that time we only had one
21 troubleman, and that would be (WITNESS #1). So
22 presumably he was up there as well.

23 8/6, we had what's called a "road show" in
24 Chico, where management came. We had like a half day of
25 listening to what they had to present, and then there was
26 5 hours that people had left in the day to work.

1 And then the SW that you see next to 8/7 and
2 8/8 refers to there were switch locks on the calendar.
3 So one of our troublemen, whoever it was assigned to, had
4 to be switching on those particular dates.

5 We were also doing not only the
6 Caribou-Palermo, but it looks like we were doing the
7 Palermo Pease, which is a whole different inspection. We
8 were doing that simultaneous with this. And that's shown
9 on 8/8.

10 8/9 there was switching on the Wood Leaf
11 Palermo, which is kind of in close proximity.

12 And then it just jumps on down to 8/19. And it
13 looks like we had some kind of an expense job that we
14 were working on the Caribou. And the WW stands for
15 Westwood. That's a whole different line.

16 8/21, we were still on the Caribou-Westwood.
17 We did some work on another line called the Head Gate
18 Tap. There was switching on the Glenn line.

19 So this is just really capturing, or trying to
20 figure out what everybody should be doing, you know, like
21 the troublemen and the crew. And then I was trying to
22 relate this to this specific patrol and see where
23 everybody was supposed to be. And that leads me to
24 Exhibit 602. Now, mind you, I did this just kind of like
25 a cursory review. This is why there is all this
26 scribbling. But what I tried to do here was to look at

1 the dates on the patrol and see what dates coincided with
2 timecards.

3 So you'll see on the top, on (WITNESS #1), 7/29
4 his timecard says that he was out there on this patrol.
5 And I was trying to match it here, and I could not.

6 7/31, same thing. There's nothing in here that
7 says that date on here, and so forth.

8 So we went through this whole list and the two
9 marks in yellow -- or two marks in orange, those were the
10 only dates, based on my research, that appeared that he
11 was out there, on the 6th and the 7th on here.

12 And then same with (WITNESS #23) and the crew.
13 I was just trying to figure out how these dates lined up.

14 So (WITNESS #23), all the dates that are in
15 here did match his timecards. So everything in orange, I
16 could account for those 38 hours in here.

17 Then the crew, on this particular patrol, they
18 did not put that the crew was out there, but they were
19 out there simultaneous with the other job. And that was
20 on 8/27, 2014. And they each worked 5 hours on this
21 particular patrol.

22 So that's what my research showed.

23 Q. So based -- you started to say something
24 earlier on about backing out time?

25 A. So, again, I am an operating clerk, but I also
26 do payroll. And a lot of people look to me for

1 accounting. I try to be as conscientious as possible.
2 If I know somebody may have transversed a number, or
3 let's say they said they were on the Caribou-Palermo
4 working crew work, well, that's different than if you
5 charged to a detailed inspection. So in referencing
6 backing out time, there was an instance on this
7 particular patrol where I did back out time.

8 Q. Why?

9 A. Because based on the summary that I gave you --
10 and I'm speculating because we're talking about the year
11 2014, but based on Exhibit 598, we had other things going
12 on and there was reason to believe that I needed a
13 confirmation on some of the charges belonging to (WITNESS
14 #1).

15 Q. If you add up all of the time that was charged
16 to the Caribou-Palermo inspection in 2014 before you
17 backed things out, how much time was it?

18 A. I have no idea.

19 Q. Well, when you backed out (WITNESS #1's) time,
20 you backed out 27 1/2 hours; right?

21 A. I'll agree with that.

22 Q. And total time for this inspection was 93
23 hours?

24 A. Okay.

25 Q. So before you bucked it out -- before you
26 backed out (WITNESS #1), that would have put it at 130

1 1/2 hours; is that correct?

2 A. If you say so.

3 Q. Well, 93 plus 27 1/2. Or is it 120?

4 GRAND JURY CLERK: One-twenty.

5 Q. (By MR. NOEL) One-twenty and a half, point
6 five, hours. So well over the allotted time, whether it
7 was 89 or 100 or 90.5; correct?

8 A. It would have been based on what you're telling
9 me. Mind you, we have a lot of inspections and/or air
10 patrols that are either over or under.

11 Q. Right. But this inspection was well over?

12 A. And, again, if we talked about the formulas in
13 which they're coming up with for this hour allotment that
14 we used to have, to me now it makes no sense because I
15 would say that there wasn't really enough time allotted
16 for that.

17 Q. Right. And the allotted time was either 90.5
18 or 89?

19 A. If they say so.

20 Q. Correct?

21 A. Based on their formula.

22 Q. And after you backed out (WITNESS #1's) hours,
23 it dropped it down to 93.5 or -- yeah, 93?

24 A. But I think we should bring up Exhibit 598 once
25 again. I don't just arbitrarily back out time. I'm
26 privy to switch logs, I am privy to conversations with

1 foremean. At that time, I was working with management.
2 There had to have been a reason, a plausible reason, and
3 I think that on this Exhibit 598 we can better see. One
4 of the dates that was backed out was 8/5. If all of our
5 people are in Burney on a fire, I highly doubt that
6 (WITNESS #1) was the only one working a detailed
7 inspection, because he was the only troubleman around at
8 the time.

9 8/7 was another day. We had a switch log. He
10 was the only troubleman, I believe, in the area. And so
11 the accounting, instead of being charged to the
12 Caribou-Palermo should have been charged to switching on
13 to Sly Creek Tap.

14 And then there was another date somewhere down
15 in here that did not match up with the patrol, because,
16 as we looked at earlier, there were only two days that he
17 so-called was in the field. So the time was backed out,
18 waiting for a confirmation, and I obviously never got
19 back to that. So anyway, I just wanted to further
20 explain it --

21 Q. Okay.

22 A. -- that there had to be a plausible reason.

23 Q. Let's go back to 590. This is the (WITNESS #1)
24 time sheet stuff; right? This shows (WITNESS #1's)
25 billed hours from 8/1 through 8/29. This shows that on
26 8/5 that (WITNESS #1), 10 hours yard maintenance. So is

1 that what you changed it to?

2 A. On 8/5?

3 Q. Yeah, 8/5. Shows him 10 hours August 5th,
4 2014. Follow it all the way across, 10 hours, 1033,
5 blah, blah, blah. It goes all the way over here, it says
6 yard maintenance.

7 A. That's 10/6; right? I can't see that far.

8 Q. It's okay to get up and walk. It's right here.
9 Here's 8/5.

10 A. Okay.

11 Q. That's the day you said it was the fire?

12 A. Right.

13 Q. And that goes all the way across, it says 10
14 hours, and he was doing yard maintenance. All the way at
15 the other side.

16 So I'm asking is that what you changed his
17 entry to?

18 A. No. That was taken out.

19 Q. What do you mean it was taken out?

20 A. I would have to look at that. I would have to
21 look at his timecard.

22 Q. Okay.

23 A. I know that there were date discrepancies.

24 Q. So you also determined, based upon their
25 timecards, that on August 27 that (EMPLOYEE #15),
26 (EMPLOYEE #13), (EMPLOYEE #16), (WITNESS #14) all worked

1 5 hours on the Caribou-Palermo?

2 A. That's what they put on their timecard. That
3 was the day that they long-lined out there.

4 Q. Okay. That was on the --

5 A. Should have been on the 27th, although they
6 dated this patrol incorrectly by putting it 8/28 at the
7 conclusive date.

8 Q. Right. Their timecards showed that they were
9 working on order number 41980167 on --

10 A. They did that, but they also were working
11 another job that was simultaneous on the same line.

12 Q. Right. Let me show you what's in evidence,
13 544.

14 A. Okay. This is the first I've seen this.

15 Q. No, I realize that.

16 A. Uh-huh.

17 Q. Shows they were doing the helicopter actually
18 on the --

19 A. On another job simultaneous. They used that
20 helicopter to do both the detailed inspection, it's my
21 understanding, and this other job.

22 Q. All right. I think that's -- did pretty good
23 today.

24 Questions?

25 Now the jurors themselves are allowed to ask
26 you questions. They've written them down, and they give

1 them to me and we review them, then I will read them to
2 you.

3 (Mr. Noel and Grand Jury Foreperson confer).

4 Q. (By MR. NOEL) All right. These are questions
5 that have been written down by some of the jurors and to
6 be asked of you.

7 If a troubleman was over the allotted hours and
8 still had to, and still had work to complete, how was the
9 work completed?

10 A. Okay. So we're talking about two different
11 parts of the work. The physical field work should
12 always, on a detailed inspection, be the last date that
13 they were physically in the field.

14 As far as the creation of notifications, again,
15 the mindset for these troublemen is that they were -- it
16 was like a personal performance measurement that they did
17 not go past these hours. That's why they would call me.
18 So when it came time to do the notification creation,
19 they'd say, "How many hours do I have left on that
20 patrol?"

21 And if I said like 8, they'd say, "Great, I've
22 got a day's worth of work." You know, "I'm going to
23 charge the day to that, to create notification."

24 But they didn't want to exceed the patrol for
25 the notification creation. But that's how they would do
26 it.

1 Q. So what if for some reason they're still out
2 doing the detailed inspection?

3 A. They're going to go over. And you'll see
4 historically there's times when we've gone well over. So
5 this fixation on hours, hour allotment, is really kind of
6 a silly measurement, because we would quite often go over
7 or quite often we would go under, depending on what we
8 were doing.

9 Q. We have seen a number of forms detailing
10 planned inspection hours for each month. Is there a
11 similar form that details the actual hours spent on these
12 inspections?

13 A. Actual hours are what we were just looking at
14 earlier on the screen where we would look into the hours
15 on the actual order applicable to align. And if you look
16 at the labor charges there, then you can see what was
17 actually charged.

18 GRAND JUROR #4: I'm not sure you answered the
19 question. I asked if there was a form that printed out
20 like that form showing actual hours worked for that
21 month?

22 THE WITNESS: A form? Oh, well, you could, you
23 could see that captured through SAP on timekeeping. So
24 you could narrow it down to a certain employee and a date
25 range, and you could print that out and you could see
26 where if time had to be corrected. And when I say that,

1 I want to be very specific about the accounting portion.
2 Because there was never a time when we actually changed
3 the hours that they said that they were working. It was
4 an accounting issue. So in answer to your question, sir,
5 in timekeeping, yes, you can see that.

6 Q. (By MR. NOEL) If there was so much shifting of
7 hours from one line or department or another, how does
8 management know how to arrive at the number of hours to
9 plan for inspections?

10 A. That's a really good question. Because, again,
11 when it came to these hours, I was not the one that came
12 up with a formula. I was not the one that assigned the
13 hours. I have no idea how, how much time it took to do
14 this.

15 So repeat to me the whole question.

16 Q. If there was so much shifting of hours from one
17 line or department or another, how does management know
18 how to arrive at the number of hours to plan for
19 inspections?

20 A. So there wasn't always a lot of shifting. Not
21 to say that there wasn't. If you shift monies for any
22 reason, it has to be on the same line. You can't go, as
23 we explained earlier, you can't take money from one job
24 and then just move it to another, another line. It
25 should be line for line. And from a, from a financial
26 standpoint, that's not my job. That's something that's

1 done by people like Warren Ma, that we mentioned his
2 name, the financial people. I would never actually move
3 monies. I'm not profiled to do that.

4 Q. Was the schedule of planned maintenance based
5 on the previous year's planned or on the previous year's
6 actual maintenance?

7 A. I really don't know how the hour allotments --
8 I mean, I haven't really done a comparison. But
9 essentially, like if there were certain patrols scheduled
10 for January of one year, then the following year we would
11 do those same patrols. But, for example, we would
12 alternate based on cycles. One time it would be air,
13 then it would be ground. But we wouldn't -- I don't know
14 how they came up with those numbers, I really don't. I
15 don't know how that would change.

16 Q. In planning maintenance, how much weight is
17 giving -- given to the prior trouble list items carried
18 over from year to year?

19 So that probably, that's probably not a good
20 question for you. You're not making the schedules;
21 right?

22 A. I'm not making the schedules, no. And I don't
23 -- like I said, those hours, I don't even know the
24 formulas except for what I read on there how they come up
25 with those.

26 Q. Were you personally aware prior to November

1 8th, '18, of the general age of the Caribou-Palermo line?

2 A. Pardon?

3 Q. Were you personally aware prior to November

4 8th, 2018, of the general age of the Caribou-Palermo

5 line?

6 A. No, I was not. Truly, I was not.

7 Q. Have you subsequently been made aware of that?

8 A. Yes, I have.

9 Q. Is it fair to say that a detailed inspection

10 was carried out on the Caribou-Palermo line in August of

11 2014, but none since then?

12 A. I would have to check my records, but with the

13 cycle of steel, we are due for that I know this month.

14 It has not been done yet. But I believe that was the

15 last detailed inspection, yes, in answer.

16 Q. If a troubleman does not take a priors list

17 with him, can he be certain if an item on any particular

18 structure has been cleared if he cannot see a problem?

19 A. No, he wouldn't be certain. So taking a list

20 out -- repeat that again.

21 Q. If a troubleman does not take a priors list

22 with him --

23 A. Yes.

24 Q. -- can he be certain of any, of an item on a,

25 any particular structure has been cleared if he cannot

26 see a problem?

1 A. No, because if you're referencing priors, if
2 you don't have it in front of you, then you don't, you
3 don't know. I mean, they mark a box, it's either
4 completed, or if it has a prior it has a check mark as
5 well. So they're supposed to go from structure to
6 structure and review each location. And that's captured
7 here in a detailed inspection.

8 Q. How often is a steel structure supposed to have
9 a detailed inspection?

10 A. I believe it's every five years. But we are
11 reviewing a lot of processes, and this *ETMP* manual we
12 have has had some changes. So I don't know if that cycle
13 will be sooner than later.

14 Q. Do other lines have similar issues with regard
15 to their inspections and their record keeping?

16 A. I'm sure there is instances in which I'm not
17 privy to, maybe you are, but this is not a clean
18 inspection, per se, so I should hope not.

19 Q. Anything else?

20 I see no hands.

21 Madam Foreperson, would you like to admonish
22 the witness?

23 GRAND JURY FOREPERSON: Yes.

24 (WITNESS #21), you're admonished not to discuss
25 or disclose at any time outside of this jury room the
26 questions that have been asked of you or your answers

1 until authorized by this Grand Jury or the Court. A
2 violation of these instructions on your part may be the
3 basis for a charge against you of contempt of court.
4 This does not preclude you from discussing your legal
5 rights with your own attorney.

6 (WITNESS #21), what I have just said is a
7 warning not to discuss this case with anyone except the
8 Court, your lawyer, or the district attorney. Do you
9 have any questions?

10 THE WITNESS: No. Thank you.

11 GRAND JURY FOREPERSON: Okay. Well, thank you.

12 MR. NOEL: All right. You are done.

13 THE WITNESS: Thank you folks for listening.

14 MR. NOEL: Go home and relax.

15 THE WITNESS: Dismissed?

16 MR. NOEL: We would not dismiss you. You're
17 free to leave.

18 [DISCUSSION OMITTED.]

19 --oOo--

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COURT REPORTER'S CERTIFICATE


This is to certify that I, JENNIFER L. HUNT, CSR, a Certified Shorthand Reporter of the State of California, was present at the time and place the foregoing proceedings were had and taken in the within matter; that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings and afterwards caused my said shorthand writing to be transcribed into typewriting. Further, pursuant to CCP237 all reference to jurors by name has been redacted.

The foregoing pages beginning at:

1 through 150

are certified to be a complete transcription of said stenographic shorthand notes.

DATED: THIS 6TH day of JUNE 2022



JENNIFER L. HUNT, CSR 10735
OFFICIAL REPORTER

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IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

REDACTED

BCSC-2019-GJ-01

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, OCTOBER 8, 2019

VOLUME 21

OROVILLE, BUTTE COUNTY, CALIFORNIA

LISA MCDERMID WELCH, CSR 10928, OFFICIAL COURT REPORTER

1 APPEARANCES:

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6
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8 OFFICE OF THE ATTORNEY GENERAL:

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1 OROVILLE, BUTTE COUNTY, CALIFORNIA

2 OCTOBER 8, 2019; 8:45 a.m.

3 (Confidential Special Grand Jury Hearing Proceedings)

4
5 [ROLLCALL OMITTED.]

6
7 [DISCUSSION OMITTED.]

8
9 MR. NOEL: We're ready to go?

10 THE FOREPERSON: Yes.

11 MR. NOEL: Chief Fowler.

12 [Captain Fowler enters the courtroom.]

13 GRAND JURY FOREPERSON: Chief, before you sit
14 down, please raise your right hand to be sworn.

15 Okay. Chief Fowler, do you solemnly swear that
16 the evidence you shall give in this matter pending before
17 the grand jury shall be the truth, the whole truth, and
18 nothing but the truth so help you God?

19 THE WITNESS: Yes.

20 GRAND JURY FOREPERSON: Thank you. Have a seat,
21 please.

22 **EXAMINATION**

23 BY MR. NOEL:

24 Q. For the record please state your full name
25 spelling your last name.

26 A. Arthur Orin Fowler, F-o-w-l-e-r.

1 Q. And do you have a nickname by which you go?

2 A. Yes.

3 Q. What is it?

4 A. Chip.

5 Q. By whom are you employed?

6 A. Cal Fire.

7 Q. In what capacity?

8 A. Battalion chief in the intel shop in the North
9 Region Office in Redding.

10 Q. What's the intel shop?

11 A. One of our primary jobs is to monitor fire
12 activity throughout the north region of California which
13 is roughly half of the area that Cal Fire is responsible
14 for and report to the region chiefs about new fires, how
15 big they are, how fast they're moving, the threats there
16 that are out in front of them. That's the primary one.

17 Q. How long have you been with Cal Fire?

18 A. Approximately 25 years.

19 Q. What training and experience do you have that
20 qualifies you for your job at the intel shop?

21 A. To become a battalion chief you are required to
22 be a fire captain for, I believe, three years. And then
23 there's an interview process to get on the eligibility
24 list -- it's a state-wide list -- so that you can apply
25 for battalion chief jobs open. And then there's
26 additional interviews for each job usually as you apply.

1 Q. How long have you been in your present position
2 with the intel shop?

3 A. Approximately two months.

4 Q. Have you received any specialized training to
5 prepare you for your new position?

6 A. No. I would think that the experience I had in
7 my previous position helped play a role in being hired as
8 one of the intel battalion chiefs.

9 Q. And prior to your current position, what was
10 your assignment within Cal Fire?

11 A. I was a fire captain in Butte County in the
12 pre-fire engineering position.

13 Q. What is pre-fire engineering?

14 A. Pre-fire engineering is a role in our department
15 where we use GIS and local knowledge to help identify
16 where we should put pre-fire projects like shaded fuel
17 breaks to help protect our community and also use GIS to
18 map projects as well as other map projects.

19 Q. What is GIS?

20 A. It's Geographic Information System.

21 Q. How do you use Geographic Information Systems to
22 plan for fire?

23 A. We can use data that has been collected over the
24 years. A lot of the data is collected by Sacramento.
25 And we can display that on a map, and we can see where
26 our different values at risk are at. We can see the

1 types of vegetation that's out there, slope, weather
2 patterns such as humidity, like average humidity or
3 average wind, average heat.

4 And once those are displayed on a map, you can
5 see where our values of risk are at and you can also see
6 where the previous shaded fuel breaks or other vegetation
7 management projects that we can use to help slow down or
8 stop a fire are. We can put that on a map and see where
9 holes are at and where we need to focus on additional
10 fuel reduction projects.

11 Q. How do you use vegetation management to plan for
12 fires?

13 A. Vegetation management is primarily where we go
14 in and say -- like the Loafer Creek area. The Loafer
15 Creek Campground is a large vegetation management
16 program. And it's -- we go in and burn it. Primarily
17 what we use the VMP program for is to burn the grass and
18 the undergrowth so that we get rid of the ladder fuels
19 and the large amounts of fuels that build up over the
20 years.

21 And when that happens, it gives us an
22 opportunity to slow down or stop a fire easier because
23 the fire will stay on the ground instead of getting up
24 into the crowns of trees and into the brush.

25 Q. You used the term "ladder fuels." What are
26 ladder fuels?

1 A. Ladder fuels are fuels that help a fire get from
2 the ground into the crowns of trees. So those fuels can
3 be low-hanging branches. It can be overgrown brush. It
4 can be pine needles that just drape in the branches that
5 burn much easier than branches do and the fire will more
6 easily spread.

7 Q. Does Cal Fire keep historical records of fires?

8 A. Yes.

9 Q. Why?

10 A. There's multiple reasons. One reason is to
11 determine the types of vegetation that burned.
12 There's -- even if I'm not from an area and I see the
13 fire history map and see that there's been a fire stopped
14 in that certain location, I may not know why that fire
15 was stopped there, but I knew it was stopped there at one
16 point. It could be a road, it could be a natural
17 barrier, or it could be a dozer line. And that gives us
18 an opportunity to plan to stop that fire there again.

19 Q. Is there a requirement that Cal Fire as a state
20 agency keep historical fire maps?

21 A. Yes.

22 Q. How long has Cal Fire been keeping historical
23 fire maps?

24 A. In the data that I have seen we have some fire
25 perimeters dating back to the 1800s.

26 Q. How are the historical fire maps kept?

1 A. There are 21 Cal Fire units in California and
2 each of them are required to collect these fire
3 perimeters and send them to Sacramento annually around
4 February.

5 Q. So the next question is where are these
6 historical fire maps kept?

7 A. There's an environmental scientist in Sacramento
8 that maintains the database that has -- he'll take my
9 fire perimeters from Butte County, for example, and, for
10 lack of a better term, stitch them together throughout
11 the state so that the following year we all have access
12 to the fire history throughout the state.

13 Q. How are the individual fire maps made?

14 A. Individual fire maps --

15 Are we talking new fire maps?

16 Q. Let's talk presently and as much as we can
17 historically.

18 A. So when there's a new fire, somebody with a GPS
19 unit or -- well, there's multiple ways we can get the
20 data. Sometimes it's a picture and the person doing GIS
21 is just looking at the picture and drawing them --
22 drawing them -- drawing the fire in the GIS program to
23 the best of their ability. Sometimes it's a firefighter
24 with a GPS unit that brings that GPS unit back and
25 downloads it after they've walked the fire and gives the
26 data off of it.

1 Sometimes it's -- there's infrared flights that
2 take place at night by aircraft. And they can send me a
3 perimeter that they see at least of the heat. It may not
4 be the exact perimeter, but it's used to create a new
5 fire map with operations.

6 Q. Prior to this age of computers and electronics,
7 how were fire maps created?

8 A. I suspect they were just hand drawn.

9 Q. Have you seen hand-drawn fire maps?

10 A. I have.

11 Q. And all of those fire maps are gathered in
12 Sacramento?

13 A. The -- I don't know about the maps themselves,
14 but the fire perimeters are electronically gathered in
15 Sacramento or for Sacramento, yes.

16 Q. All right. Next to you you have what's marked
17 as Exhibit 606, and I also have it up on the big board.

18 Can you explain to us what 606 is.

19 A. This is a fire history map primarily for Butte
20 County and the surrounding area. And it has fire history
21 on it dated back to the 1800s. And I color-coded that
22 map to more easily identify the most recent fires. So
23 red being the most recent and that bluish color being the
24 oldest.

25 Q. Can you explain to us how you put this map
26 together.

1 A. Essentially used the geodatabase that's provided
2 from Sacramento with additional fire perimeters that I
3 have received here locally and used the GIS program
4 called Arc Desktop and used that program to create the
5 map.

6 Q. So this was made from the official records of
7 Cal Fire?

8 A. Yes.

9 Q. And feel free to stand up, and I'll show you
10 real quick. We use this (indicating) arrow. You can
11 draw, you can zoom, or whatever.

12 And explain to us how to read this map.

13 A. For this particular map the only thing I put in
14 the legend was the fire history because that was the
15 primary goal of this map was to display fire history for
16 Butte County. So the only thing in the legends are those
17 fires grouped by date.

18 And so like all the red is our fires in Butte
19 County from 2016 through 2018. So it's a little hard to
20 read on this. But, for example, this fire here
21 (indicating) was the Cherokee Fire in 2017.

22 Q. We can -- oops. We can blow it up.

23 A. We can blow it up, but you can't see the labels.
24 But each fire or most fires that had a fire name or age
25 range assigned to it in the database are labeled. And
26 anything over a certain size -- and I don't recall what I

1 used. I believe it was 10,000 acres -- have kind of a
2 bolder title to it. So those larger fires pop out.
3 Otherwise, they kind of get lost in the map.

4 And so this fire was the Cherokee Fire in 2017
5 that took place the same time as the fire in Bangor and
6 in LaPorte. And the majority of this (indicating) red,
7 if not all the majority of it, is the Camp Fire.

8 Q. Now, it looks like there are some yellow and
9 blue and orange lines and patterns within the perimeter
10 of Cal Fire. Is that true?

11 A. Yes.

12 Q. What do those depict?

13 A. Those -- the fire history kind of stacks on top
14 of each other. Oldest is on the bottom and the newest is
15 on top. And so what we try to do with this map so that
16 people had an idea of when those fires burned was add an
17 outline so that you could see all these other fires.
18 These are all -- with the exception of some of the rare
19 highways but most of these different colors in here are
20 other fire perimeters outside of the roads, the rest of
21 the lines.

22 Q. And the fire is marked. And we can't really
23 read the names blown up. But using the big board over
24 there, the printed-out copy are the individual fires
25 marked with their information?

26 A. Most of them. There were some that didn't

1 populate.

2 Q. And what is the information that is provided for
3 those fires?

4 A. So it should be the fire name, the year of the
5 fire, and any fire -- maybe it's a thousand acres. Any
6 fire over a thousand acres has the acreage associated
7 with it. If we did acreage for every fire, it would just
8 be -- it would be difficult to read the map.

9 Q. All right. So before we go on -- oh, we've got
10 to get to the "X" out of that and just focus. I've got a
11 blowup here of the Camp Fire.

12 A. Okay.

13 Q. And, you know, kind of use that bigger view to
14 explain a little bit further the Camp Fire and the
15 history of fire in that area.

16 A. So the only areas that we don't have a fire in
17 in this section of the county are these areas that are
18 off white or gray color. Everywhere else there's been
19 fire in the county. And so some of them are small and
20 very old. And they don't even necessarily have names
21 attached to them.

22 We have some that burned. Like the Lightning
23 Complex of 2008 is roughly this yellow line. It gets a
24 little jumbled in here (indicating) because of other
25 fires but this yellow line here. So a large portion of
26 that Concow area burned in 2018. And then there's

1 smaller fires like the 2012 Concow, 2016 Saddle Fire.

2 MR. NOEL: All right. Thank you. I have
3 nothing further.

4 Do any of the jurors have questions for this
5 witness? I don't see any questions from the jurors.

6 So Madam Foreperson is going to read you an
7 admonishment and then you're done.

8 THE WITNESS: All right.

9 GRAND JURY FOREPERSON: Okay. Chief Fowler, you
10 are admonished not to discuss or disclose at any time
11 outside of this jury room the questions that have been
12 asked of you or your answers until authorized by the
13 Grand Jury or the Court. A violation of these
14 instructions on your part may be the basis for a charge
15 against you of contempt of court. This does not preclude
16 you from discussing your legal rights with your own
17 attorney.

18 Chief Fowler, what I have just said is a warning
19 not to discuss the case with anyone except the Court,
20 your lawyer, or the district attorney.

21 Do you have any questions?

22 THE WITNESS: I do not.

23 GRAND JURY FOREPERSON: Okay. Thank you for
24 your time today.

25 THE WITNESS: Thank you.

26 MR. NOEL: Thanks.

The next witness will be Captain Baker.

[Mr. Fowler exits as Mr. Baker enters the courtroom.]

GRAND JURY FOREPERSON: Captain Baker, before
you have a seat, I need to swear you in.

THE WITNESS: Okay.

GRAND JURY FOREPERSON: Thank you.

Captain Baker, do you solely swear that the evidence you shall give in the matter pending before the grand jury shall be the truth, the whole truth, and nothing but the truth so help you God?

THE WITNESS: I do.

GRAND JURY FOREPERSON: Thank you. Have a seat, please.

EXAMINATION

BY MR. NOEL:

Q. For the record, would you please state your full name spelling your last name.

A. Joshua James Baker, B-a-k-e-r.

Q. Captain Baker, are you employed?

A. Yes, Sir.

Q. By whom?

A. State of California Cal Fire.

Q. In what capacity?

A. As of three months ago I'm the unit's pre-fire engineer.

0. Which unit?

1 A. Cal Fire Butte Unit.

2 Q. Okay. And let's back up. How long have you
3 been employed by Cal Fire?

4 A. Since 2005.

5 Q. Describe for us your career with Cal Fire, the
6 positions you've held, the training and experience you
7 have.

8 A. Well, I started out as a volunteer firefighter
9 in 2000, was a volunteer until 2005, was picked up
10 seasonally with the department, was seasonally working
11 nine months a year until 2012. I promoted to limited
12 term engineer working basically nine months a year, four
13 or five months a year as a company officer engineer, and
14 then three or four months a year as a firefighter one.

15 Promoted in 2014 to permanent engineer. That
16 was my first permanent classification with the
17 department. Worked for about four and a half years as a
18 permanent engineer, promoted to limited term captain in
19 the Shasta Unit for four months, then was offered a
20 permanent captain's position here in the Butte Unit in
21 the Emergency Command Center. Worked for three years in
22 the Emergency Command Center until I promoted into
23 this -- or transferred into this new position about three
24 months ago.

25 Q. And that position is again?

26 A. Pre-fire engineering.

1 Q. Were you provided any specialized training as
2 part of your new position?

3 A. So I did a 24-hour course on my own in Arc GIS
4 through Chico State and I did some ride-alongs with the
5 former pre-fire engineer, and I've had a three-day course
6 in mapping and GIS taught through the department in
7 Redding.

8 Q. So explain to us your job as a pre-fire
9 engineer.

10 A. So as the pre-fire engineer I'm in charge of
11 tracking new fuels projects that we do, fuels reduction,
12 hazard fuel reduction projects, making incident maps,
13 mapping projects for the department, ground-level
14 planning, looking at ways that we can hopefully prevent
15 fires from happening in the future through hazard
16 mitigation and education of the community.

17 Q. So today we want to talk about the 2008
18 Lightning Complex Fires.

19 A. Okay.

20 Q. Beside you and also up on the electrical board
21 or the electronic board is a map marked Exhibit
22 Number 607. Do you recognize Exhibit 607?

23 A. Just as a data request yesterday to print this
24 map out. That was actually, to be honest with you, the
25 first time I had seen this map. But I hold all of the
26 data for the unit and so I was asked to provide this map.

1 Q. What do you mean you hold all the data for the
2 unit?

3 A. So when I transitioned into this new position, I
4 received basically what we refer to as a break. And it's
5 a hard drive that consists of state data and then all the
6 previous data from all -- dating back to -- to be honest,
7 I don't know when -- how long we have kept this data.
8 But previous pre-fire engineers -- basically we just pass
9 this data from one person to the next so that we have all
10 of that information archived for historical records.

11 Q. So you're the current keeper of the historical
12 data for the Butte Unit?

13 A. As far as the mapping and GIS data, correct.

14 Q. All right. What is Exhibit 607?

15 A. Exhibit 607 --

16 Q. And feel free to get up and walk around.

17 A. Okay. So Exhibit 607 is the final map product
18 produced from the Lightning Complex from 2008. We had
19 two separate incident command teams working. Command
20 Team Nine was deployed June 23rd through July 23rd of
21 2008. At that point they transferred command to Incident
22 Management Team Five from July 22 through August 1st.

23 This was the final map product that, I'm
24 assuming, with a culmination of the two different teams
25 and GIS functions within their teams that tracked the
26 final footprints of the fires within the Lightning

1 Complex.

2 Q. And from where did you obtain this map?

3 A. This was on my computer within the hard drive.

4 Q. So this is an official record of Cal Fire of the
5 fire?

6 A. Correct. When we have an incident management
7 team deployment inside our unit, the team takes over the
8 GIS portion and the mapping portion of that and then they
9 provide all of that data over to myself as the GIS person
10 in one fashion or another, either a thumb drive or
11 something like that. And then we save it and archive it
12 into whatever fashion or however we're going to save that
13 data.

14 Q. And these records are kept in the regular course
15 of business by Cal Fire?

16 A. Correct.

17 Q. And they are actually required to be kept by Cal
18 Fire; is that correct?

19 A. Yes.

20 Q. And these maps are made at or close to the time
21 in which the fire is occurring?

22 A. So we to the best of our ability map all
23 incidents in live time for folks to provide them the
24 newest and most up-to-date information that we have in
25 regards to where a fire is burning. So we -- we're --
26 either ourselves or a team are putting together an

1 incident action plan every day. And that will have the
2 latest footprint of the fire perimeter in it.

3 Q. Why is it important for Cal Fire to make and
4 keep present maps of fires?

5 A. Well, for multiple reasons. So we would provide
6 a map for people being deployed right now for operations
7 and planning purposes, and we will also provide the
8 incident management team historical data in regards to
9 fire history so that -- for planning purposes also.
10 Because if you have fire history in that area, we might
11 be able to determine where fire has burned previously.

12 Because it's going to do a couple things. One,
13 it's going to possibly change the way in which a fire is
14 burning because the fuel model might change but also
15 provide us some intel into the way -- not necessarily the
16 way the fire was stopped but where it was stopped in
17 previous history. So our history is really important to
18 us to be able to determine operations and planning.

19 Q. So these maps and the fact that these maps are
20 correct and accurate are very important for firefighting?

21 A. Absolutely.

22 Q. And these maps are created for reasons other
23 than just to display?

24 A. Oh, yeah, absolutely. Operations and planning
25 is a huge portion of what we do. We need to know where
26 that fire is burning, the direction it's headed, how it's

1 spreading as well as where our resources are working for
2 accountability.

3 As you can see in the map, it's separated out by
4 these division breaks. And so you're able to tell --
5 we'll have certain resources assigned into these
6 divisions. And based upon that, that way we know where
7 our folks are working for accountability and what the
8 operations are for each one of those divisions because it
9 might change for each one what our tactics and strategies
10 are.

11 Q. All right. Can you explain to us how to read
12 Exhibit 607.

13 A. So down here (indicating) you have your -- your
14 compass dictating which way is north, west, south, and
15 east. You have a legend which tells you everything that
16 is happening in the map, who created the map, and then
17 the teams that were assigned to the map. And then inside
18 the legend you have your highways.

19 This one is hard to read. Highways, roads,
20 rivers, lakes. You have different areas of DPA meaning
21 who's expected to provide protection inside those areas
22 when there's not a fire burning. So whether it's the
23 Forest Service, Cal Fire, local government, et cetera,
24 that has to provide fire protection or suppression within
25 that area.

26 We also notate on here safety zones, staging

1 areas, drop points, helispots, if there's any spot fires
2 outside the main fire footprint. Remote area weather
3 stations are notated on here, whether or not there's any
4 water sources, mobile repeaters for communications. And
5 in this one they have a bridge that is not passable. So
6 they wanted to make sure that was put on there. And then
7 we have a completed fire line and then how that line was
8 constructed either hand line or dozer line.

9 It's broken up into different divisions: Bravo
10 Division, Charlie; the different drop points. And then
11 in here are some dozer lines that look like they might
12 have been different operations that they tried to
13 potentially stop that fire spread. And it either jumped
14 the line or it was a contingency line. But this right
15 here (indicating) is the final footprint where we were
16 able to stop that fire.

17 Q. So this pink area in here (indicating) is the
18 actual footprint of the fire?

19 A. Correct, fire perimeter.

20 Q. And what about this darker kind of greenish
21 yellow at the top?

22 A. Which part are you referring to? Up here?

23 Q. Yeah. Inside the black lines, but it's not
24 pink.

25 A. Yeah. So they -- apparently, they stopped the
26 fire right inside this perimeter. I believe that this

1 was created -- and I wasn't on this incident in this
2 capacity, but I believe this is where they were creating
3 some contingency lines in the event they weren't able to
4 stop the fire where they were able to stop it.

5 It's a different color because again of the
6 direct protection area who is supposed to provide fire
7 suppression in this area. But all the different dozer
8 lines and division breaks that you see they were planning
9 for that fire to potentially continue to grow but
10 thinking that they could stop it out here in that area.

11 Q. So geographically can you point out cities,
12 towns, monuments, any landmarks that are identifiable on
13 the map.

14 A. Yeah. So the easiest way -- so this right here
15 (indicating) is running along the west branch of the
16 Feather River and right along Highway 70. Up towards the
17 top it looks like it stopped in the area of Campbell.

18 And I don't know how familiar you guys are with
19 the area but north of Concow, Jarbo Gap. There's Rag
20 Dump, Flea Mountain, Big Hill. And for us those are
21 areas that we've worked in in the past so those do mean a
22 lot to us.

23 Q. How about Pulga?

24 A. I believe Pulga is -- so this area is all right
25 where Camelot staging is in the Pulga area, but I don't
26 believe they have notated it on this spot. I don't see

1 it on here.

2 Q. Is it safe to say that the fire started
3 northeast of Pulga in the Feather River Canyon or above
4 the Feather River Canyon and burned down the Feather
5 River Canyon?

6 A. To be honest with you, I don't know which
7 direction this fire burned in.

8 Q. All right. But that is the area that is burned
9 out?

10 A. Correct.

11 Q. Okay. That is the pink area.

12 And this (indicating) area down here where the
13 containment line is on the far left -- on the far west,
14 can you tell us what area of the county that is.

15 A. It's -- well, you can see that down here to the
16 left is the Town of Paradise. So that's going to be down
17 in the canyon below Paradise in the drainage.

18 Q. The west branch?

19 A. The west branch, correct.

20 MR. NOEL: Okay. Thank you. I believe that's
21 all I have of the witness.

22 Do any of the jurors have any questions?

23 [Pause in proceedings.]

24 BY MR. NOEL:

25 Q. Okay. We have some questions from the jurors.
26 We've gone over them. I have a couple questions I don't

1 think would be appropriate for you.

2 A. Okay.

3 Q. But Question Number One: Are these maps, for
4 instance, 607 shared with PG&E? And if so, how?

5 A. Unknown.

6 Q. Question Number Two: Does Cal Fire meet with
7 PG&E regularly in prevention and hazard mitigation
8 planning?

9 A. Being new to my position I have yet to meet with
10 any PG&E representatives. I'm not sure if that's in the
11 course of my job description at this point.

12 MR. NOEL: Anything else? All right. Thank
13 you.

14 Madam Clerk -- or Madam Foreperson is going to
15 have an admonishment for you and then you're done.

16 THE WITNESS: Okay.

17 GRAND JURY FOREPERSON: Captain Baker, you are
18 admonished not to discuss or disclose at any time outside
19 of this jury room the questions that have been asked of
20 you or your answers until authorized by this grand jury
21 or the Court. A violation of these instructions on your
22 part may be the basis for a charge against you of
23 contempt of court. This does not preclude you from
24 discussing your legal rights with your own attorney.

25 Captain Baker, what I have just said is a
26 warning not to discuss this case with anyone except the

1 Court, your lawyer, or the district attorney.

2 Do you have any questions?

3 THE WITNESS: No, Ma'am. Understood.

4 GRAND JURY FOREPERSON: Thank you for your time
5 today.

6 THE WITNESS: Thank you.

7
8 [DISCUSSION OMITTED.]

9
10 [Recess taken from
11 9:33 until 10:15 a.m.]

12
13 GRAND JURY FOREPERSON: All members of the grand
14 jury have returned, and we're ready to proceed.

15 MR. NOEL: All right. Call Rich Mortensen.

16 GRAND JUROR NUMBER EIGHTEEN: So this is the guy
17 from Arizona?

18 MR. NOEL: Yep.

19 GRAND JUROR NUMBER FOUR: You need to apologize
20 to him several times.

21 MR. NOEL: I have.

22 [Mr. Mortensen enters the courtroom.]

23 GRAND JURY FOREPERSON: Mr. Mortensen, before
24 you take a seat, would you please raise your right hand
25 to be sworn.

26 Okay. Mr. Mortensen, do you solemnly swear that

1 the evidence you shall give in this matter pending before
2 the grand jury shall be the truth, the whole truth, and
3 nothing but the truth so help you God?

4 THE WITNESS: I do.

5 GRAND JURY FOREPERSON: Thank you. Have a seat,
6 please.

7 **EXAMINATION**

8 BY MR. NOEL:

9 Q. Agent, for the record please state your full
10 name spelling your last name.

11 A. Sure. Richard Mortensen, M-o-r-t-e-n-s-e-n.
12 And Richard is common spelling.

13 Q. By whom are you employed?

14 A. The Department of Homeland Security, Homeland
15 Security Investigations.

16 Q. In what capacity?

17 A. I'm a special agent criminal investigator.

18 Q. How long have you been a special agent with
19 Homeland?

20 A. Since October 2009.

21 Q. Prior to October 2009 by whom were you employed?

22 A. The U.S. Forest Service and the U.S. Border
23 Patrol.

24 Q. In what capacity?

25 A. I was employed from October 2007 to October 2009
26 by the U.S. Forest Service. I was a special agent

1 criminal investigator for the Forest Service. I did
2 resource investigations which also included origin and
3 cause investigations for fires. And for the Boarder
4 Patrol I was a patrol agent.

5 Q. What training did you receive in origin and
6 cause investigations for fires?

7 A. I received a 40-hour training for basic wildlife
8 fire. I think it's called FI-210. I have received the
9 basic wildland fire investigation and advance wildland
10 fire investigation training.

11 Q. And as a Forest Service special agent, what
12 geographic area were you assigned?

13 A. The region I was responsible for was basically
14 Northern California. At the time I was assigned to an
15 office in the Plumas National Forest.

16 Q. Now, in September of 2008 were you assigned to
17 investigate a fire in the Plumas National Forest?

18 A. Yes.

19 Q. And was that fire given a name?

20 A. Yes.

21 Q. What was the name of the fire?

22 A. The Rock Fire.

23 Q. Where did the Rock Fire occur?

24 A. It's been a few years so I'm going to review the
25 report, but it was in the eastern district of California
26 in the Plumas National Forest down in the canyon.

1 Q. What canyon?

2 A. I can't remember the exact name of the canyon
3 without referring to the report.

4 Q. And you wrote an investigation report?

5 A. Yes, I did.

6 Q. And you have a copy of that report with you
7 today?

8 A. I do.

9 Q. And referring to the report refreshes your
10 recollection as to details of the fire?

11 A. Exactly, yes.

12 Q. So whenever you refer to the report, if you'd
13 please just let us know on the record that you're
14 referring to the report. And if there's a place in the
15 report in particular to which you're referring, also let
16 us know that.

17 A. Okay. The fire that we're referring to is in
18 the report under the Rock Fire cause and determination
19 and it identifies the fire as occurring near the Rock
20 Creek Dam located off of a ranger district of the Plumas
21 National Forest.

22 Q. Okay. Describe for us how you investigated the
23 Rock Fire.

24 A. After being notified that a fire occurred, it's
25 my responsibility to go out and determine the origin and
26 cause. So I go to the area where the fire was

1 identified. Going to the area that was identified
2 geographically, I drive to the location, physically see
3 where it is, study the terrain, the access to it.

4 Is that what you're referring to?

5 Q. Yeah. Now, did you work alone or were you
6 assigned a team?

7 A. I had a fire prevention technician Jenny Manly
8 with me when I initially responded to the area.

9 Q. Okay. But what was your role in the
10 investigation?

11 A. My role is to determine the origin and cause of
12 the fire.

13 Q. I guess what I'm asking is are you the lead
14 or --

15 A. Yes, I was the lead investigator assigned there
16 to review the fire and determine the origin and cause.

17 Q. All right. And were you assigned supporting
18 personnel to assist you with that task?

19 A. Yes.

20 Q. And did you write the report?

21 A. Yes, I wrote the report.

22 Q. All right. When did the Rock Fire start?

23 A. It was on September 30th, 2008, at approximately
24 2:30 p.m.

25 Q. How large was the Rock Fire?

26 A. It ended up being approximately five acres.

1 Q. And what did the Rock Fire burn?

2 A. Natural vegetation.

3 Q. Describe the process for us by which you
4 determined the origin and cause of the fire.

5 A. When we arrive to a fire -- in this particular
6 incident it was in a canyon and it's steep. So when we
7 arrived to the fire, one of the areas that we look for is
8 possible influences that could ignite a fire and then we
9 also look at the direction that the fire is burning using
10 macro indicators that we have studied during origin and
11 cause investigations.

12 Q. Are you familiar with the term "negative
13 corpus"?

14 A. Yes.

15 Q. What does negative corpus mean or what did it
16 mean to you at the time?

17 A. Negative corpus means looking at all the
18 available known origins or causes of fire and eliminating
19 them from the cause of fire.

20 Q. You talked about micro and macro indicators.
21 Can you describe and define what you mean by those.

22 A. Sure. A macro indicator to me is maybe a large
23 view of a fire to help you determine where the origin and
24 cause is. A traditional type macro indicator might be
25 the "V" burn pattern. Obviously if you follow the "V"
26 back to the bottom of the fire, that's more likely where

1 the origin and cause was.

2 And a micro indicator is where you're within the
3 burn and you can look at how the fire affected the plants
4 or the obstacles or anything inside the fire to track
5 those back to the origin.

6 Q. So using macro and micro indicators were you
7 able to determine the general area of origin of the Rock
8 Fire?

9 A. Yes.

10 Q. Describe for us how you did so.

11 A. I'm going to refer to the report here. But
12 basically, when you get into the area of the fire, you
13 look at what causes a fire to burn a specific direction
14 or a specific area. And this way the fire burned uphill
15 away from a tower.

16 When I arrived at the scene, it was -- the area
17 was behind a locked gated area where it was unlikely for
18 people to be there. So you could eliminate camping or
19 some of those -- campfires and those types of other
20 issues.

21 Once you get to the fire, you're able to look at
22 how the vegetation burns and use macro indicators like
23 cupping, freezing, backing to indicate a smaller portion
24 where the origin was.

25 Q. Even though you somewhat eliminated that based
26 upon the fact that the general area of origin was within

1 a locked, gated, fenced-in area, do you still look for
2 any signs of possible campfires or any human activity
3 while you're doing your origin and cause investigation?

4 A. Yes.

5 Q. And on this day did you see any?

6 A. No.

7 Q. So go on and explain to us how you used the
8 macro and micro indicators to take this back to the area
9 of origin.

10 A. Okay. Hold on a second. I'm going to refer to
11 this report here a little bit. I have pictures in the
12 report which would help more easily explain.

13 Q. We'll get to those in just a second. It's just
14 kind of a general overview right now.

15 A. General overview. When you get to the area of
16 the fire, like I said, you evaluate the terrain and the
17 things that could cause a fire.

18 In this specific incident the fire was burning
19 uphill and away. So when you get into that, you can
20 focus on the power lines. There was a power line
21 existing there.

22 Q. That was going to be my next question.
23 During -- when you were looking for potential sources for
24 ignition of the fire, what did you look at?

25 A. Due to the remoteness of the area and the
26 restricted access, to me lightening would have been a

1 logical cause or any man-made item in the area. And the
2 only man-made item in that area was a power line.

3 Q. Were you able to eliminate lightening as a
4 possible cause?

5 A. Yes.

6 Q. How so?

7 A. The BLM -- Bureau of Land Management -- tracks
8 lightening strikes in the area. And I believe in the
9 report -- there's a report from the BLM indicating that
10 there were no lightening strikes in the area of the fire
11 given the time that it started.

12 Q. So when you arrived at the general area of
13 origin, were you able to narrow the potential sources of
14 ignition for the fire?

15 A. Yes.

16 Q. And to what were you able to narrow the sources?

17 A. The power line.

18 Q. How were you able to do so?

19 A. Well, when I arrived to the scene, I could see
20 there was a defect in the power line. And given
21 everything else that was evaluated, that was really the
22 only cause that could have ignited the fire.

23 Q. All right. Let's go on. And in front of you
24 you should have Exhibit 546, Photograph 546.

25 Do you see that photograph?

26 A. I do.

1 Q. And we also have it up on the big board.

2 Now, do you recognize that photograph?

3 A. I do.

4 Q. Explain to us what we're looking at in this
5 photograph.

6 A. There's the tower that is in the origin of the
7 Rock Fire. It's the tower that supports the power line.
8 And where you see the yellow arrow pointing to the
9 dangling wire, that is what was identified as a jumper
10 and it was a defect in the power line.

11 Q. Okay. Go back then. On the photograph itself
12 there are written or typed "broken power line jumper" in
13 yellow with a yellow arrow pointing to the line.

14 A. Yes.

15 Q. Is this something that you annotated onto your
16 photograph?

17 A. It is.

18 Q. That is part of your report?

19 A. Yes, it is.

20 Q. Why was this significant to you?

21 A. Due to all the other causations that are out
22 there for fire, everything was able to be eliminated
23 except for this mechanical defect.

24 Q. Now, were you able to identify the specific
25 transmission line in which this tower was part of?

26 A. The name of the transmission line?

1 Q. Yes.

2 A. Yes.

3 Q. What transmission line?

4 A. I'm going to have to refer to the report on that
5 one. I know it's in here because I just saw it. I've
6 been out of the fire industry for a little while so . . .

7 I know it's in here. I just have to find it.

8 Q. If you look back in your report to Exhibit I way
9 back towards the back, I think that's what you're looking
10 for.

11 A. Yeah. The Caribou-Palmero line.

12 Q. Palmero or Palermo?

13 A. It says "Palmero." It could be a typo.

14 Q. Okay. Okay. All right. Were you able to
15 determine what type of transmission line this was?

16 A. It is a 115 kV line attached to the top of the
17 power line tower located within the general origin of the
18 fire.

19 Q. Okay. All right. So I want to walk through the
20 individual possible causes and talk about how you
21 eliminated those.

22 A. Great.

23 Q. First off, lightening.

24 A. Lightening. As we discussed earlier, the BLM
25 lightening strike map tracks lightening strikes. I
26 received a copy of that lightening strike map for that

1 date, time, area and there was no indication that there
2 was lightening.

3 Q. How about debris burning?

4 A. Yes. There's no evidence of debris burning
5 found. It was behind a locked gate. I remember there
6 was a gate that restricted access. It was across the
7 canyon and up on a hill. There was no evidence of any
8 debris burning in that area.

9 Q. How about equipment use?

10 A. Equipment use. Other than a -- other than the
11 power line there's no heavy equipment that could get in
12 the area. It's -- you know, it's restricted, it's steep,
13 it's remote. And there was no signs of any equipment use
14 in the area.

15 Q. How about railroads?

16 A. From my recollection there is no railroad in
17 that area at all on that side of the road.

18 Q. Children playing with fire?

19 A. Again, back to the children. Due to the
20 remoteness and the location of the fire, there was no
21 indications that children would be there nor would it be
22 common or likely that kids would ever be in that area.

23 Q. Did you find any evidence of campfires in the
24 area?

25 A. I did not.

26 Q. Now, the next category is the term incendiary.

1 Can you describe for us what incendiary means.

2 A. I'll get to that. I'm going to read from the
3 report. It's been a while since I've done one of these.

4 Under the section called "Incendiary" and it
5 says "Incendiaries or arson fires are deliberately,
6 maliciously, or recklessly set." And I did not find
7 anything that would indicate that.

8 Q. And finally smoking. Did you locate any
9 evidence of smoking in the area of origin?

10 A. I did not.

11 Q. Did you observe any evidence of any other type
12 of possible ignition source for the fire?

13 A. Just the power line.

14 Q. Okay. Now, did you contact PG&E about the
15 Caribou-Palermo 115 line?

16 A. I did.

17 Q. And obtain records as to the status of the
18 Caribou-Palermo 115 line on September 30th?

19 A. I did.

20 Q. And what did you learn from PG&E with regard to
21 the Caribou-Palermo line?

22 A. I think the term they used was "open-ended." It
23 means that there was a defect in the line identified
24 during the approximate time the fire started in that
25 area.

26 Q. Okay. Now, let's get back to the photographs.

1 Let's go on to Exhibit 547.

2 A. Okay.

3 Q. Do you recognize Exhibit 547?

4 A. Yes.

5 Q. What is Exhibit 547?

6 A. Exhibit 547 is a picture of the broken power
7 line and the jumper. And there are words I put on there
8 indicating where that is in the picture.

9 Q. And Exhibit 548. Do you recognize Exhibit 548?

10 A. I do. It's a photograph of the broken power
11 line jumper in relationship to the origin of the fire.

12 Q. And again, so we don't have to do this every
13 time. But on most of these photographs there's yellow
14 typewritten information. Is that information that you
15 annotated onto the photographs?

16 A. Yes.

17 Q. Is that part of your report documenting the
18 scene?

19 A. Yes.

20 Q. All right. So describe to us what we have on
21 548.

22 A. Exhibit 548 is a picture from up above the tower
23 looking back toward the origin specifically showing the
24 tower and the broken equipment that was associated with
25 the tower.

26 Q. With the origin being where?

1 A. At the base of the tower.

2 Q. And 549. Do you recognize 549?

3 A. I do.

4 Q. What is 549?

5 A. Exhibit 549 is a picture going uphill towards
6 the tower showing the relationship of the broken jumper
7 and the power line in relation to the origin of the fire.

8 Q. Do you recognize 550?

9 A. Yes.

10 Q. And what is 550?

11 A. Exhibit 550 is showing the origin of the fire in
12 relation to the tower.

13 Q. Do you recognize 551?

14 A. I do.

15 Q. What is 551?

16 A. Once again, it's another photograph of the
17 broken power line jumper and the tower in relation to the
18 origin of the fire.

19 Q. Now, in this case you have additional
20 information annotated on the photograph. It says
21 "Supposed to connect here" with an arrow.

22 A. Correct.

23 Q. Can you explain that to us.

24 A. Yes. This picture identifies -- you can see
25 that jumper is just hanging down from one side of the
26 power line. And what it identifies is where that jumper

1 is supposed to be connected on the power line.

2 I think you can actually see it in other
3 photographs or the other ones that are still connected.

4 Q. And moving on to 552, do you recognize 552?

5 A. Five fifty-two, yes.

6 Q. What is 552?

7 A. In 552 the word on it "Run" with the arrow
8 indicates they are going uphill. It indicates the
9 direction that the fire traveled away from the tower
10 uphill.

11 Q. Can you acclimate us on where 552 was taken?

12 A. From this picture it looks like 552 was taken on
13 the uphill side of the tower facing down the power line.

14 Q. Where in relationship to the area of origin?

15 A. Just uphill from the origin of the fire.

16 Q. Then 553.

17 A. Five fifty-three is a photograph indicating the
18 origin being downhill and then freezing which would be a
19 micro indicator showing the vegetation bending to the
20 right in this photograph indicating that the fire is
21 traveling in the direction of the freezing vegetation.

22 Q. Describe for us what you mean by freezing and
23 how that's used as a micro indicator.

24 A. So in this picture you can see where the
25 freezing -- there's an arrow that is bending from left to
26 right and you can see on the vegetation where that

1 vegetation is bending left to right. The freezing in
2 this picture indicates the fire was moving from the left
3 to the right. And it's indicative by the vegetation
4 freezing.

5 Q. Now 554.

6 A. Yes.

7 Q. Explain to us what we're looking at.

8 A. The upper left corner of this picture you can
9 see freezing. It's just a closer shot of the actual
10 micro indicator of freezing. And below freezing you can
11 see on the vegetation that the vegetation is bent to the
12 right, from left to right. And the bending of that
13 vegetation is a micro indicator indicating the fire is
14 moving from the left to the right.

15 Q. And feel free to stand up and use the board if
16 you want to at any time to illustrate points or explain
17 things.

18 A. This right here (indicating) that I'm pointing
19 at is the upper left portion of the photo. Underneath
20 the words "freezing" the top of the vegetation that is
21 still somewhat green. And it indicates the yellow line
22 starting here (indicating) and then has vegetation bent
23 from left to right in the direction of the arrow. That
24 shows it's freezing in that manner.

25 Q. Moving on to Exhibit Number 555, do you
26 recognize that?

1 A. I do.

2 Q. Can you tell us what we're looking at.

3 A. Yes. This photograph is of consumed fuel in the
4 middle of the picture, which is all that dark burned-out
5 area. There's a word that says "Origin" in the middle
6 with an arrow pointing to the left showing that the
7 origin of fire was to the left and it burned through the
8 consumed fuel up to the right.

9 And then the lateral movement shows unconsumed
10 fuel or protected fuel on the left side which would be
11 the left side of the fire as it burned from left to right
12 uphill.

13 Q. And 556. Please explain to us what we're
14 looking at.

15 A. Five fifty-six is a picture of consumed fuel and
16 unconsumed fuel. It's one of the indicators. Obviously,
17 an area that has consumed fuel is where the fire existed
18 and the area of unconsumed fuel or protected fuel -- in
19 this situation protected leafs shows that the fire did
20 not burn as heavily in that area. So it's able to
21 indicate edges of the fire.

22 Q. All right. Exhibit 557. Do you recognize this
23 photograph?

24 A. I do.

25 Q. What does this photograph show?

26 A. This photo shows a closer view of what was

1 originally determined to be the origin or was determined
2 to be the origin of the fire and this (indicating) is a
3 smaller area where we'd actually get down and take a
4 closer examination.

5 Q. How did you determine this area inside the
6 yellow circle was the origin of the fire?

7 A. As previously discussed, those indicators with
8 freezing and protected fueling and protected leaves you
9 can follow those in a reverse pattern and it will help
10 indicate those macro indicators and it will help indicate
11 where that origin came from, where it burned from.

12 And then if you go on the other side of that,
13 there's different indicators that show the fire behavior
14 that was going downhill was different than the fire
15 behavior that was going uphill, and that point between
16 where those two meet becomes the origin of the fire.

17 Q. Please acclimate us on the area that we're
18 looking at here.

19 A. The area is the -- I'm going to stand up here.
20 The area is circled in the yellow circle.

21 Q. Right but in terms of a geographical area and
22 specifically in relation to the broken jumper line.

23 A. In this photo you can see that the tower legs
24 are on the left -- in the upper left corner. And so this
25 would be the base of the tower underneath the broken
26 jumper or the broken jumper would be unattached to the

1 power lines above this general area.

2 Q. All right. Moving on to 558 and looking at this
3 photograph.

4 A. Yes.

5 Q. Explain to us what we're looking at in 558.

6 A. So this would be the origin. This would be --
7 this would be the macro and micro indicators where you
8 start looking for the portion of the fire that is backing
9 downhill versus burning uphill. And like I said earlier,
10 where those two points meet is where the origin is going
11 to be.

12 So in the upper left picture of this -- of this
13 photograph you can see where it says "protected fuel
14 backing" which the backing is the micro indicators
15 showing that -- showing the difference in behavior --
16 fire behavior burning up and away versus slowly burning
17 down.

18 And then we have a picture in the middle showing
19 the consumed fuel which means the fire was there burning
20 fuel longer than the protected fuel and the backing and
21 the arrow pointing to the origin.

22 Q. Do you recognize 559? The photograph marked as
23 559?

24 A. Uh-huh.

25 Q. And please explain to us what we're looking at
26 in the photograph marked as Exhibit 559.

1 A. As we were discussing fire behavior, in this
2 picture there's the advancing with the arrow pointing
3 uphill. So this is showing that the fire in this
4 photograph was burning uphill or advancing uphill. And
5 that was indicated by the staining on the rocks and the
6 cupping and protection of the vegetation and then the
7 origin pointing in the direction of the arrows.

8 What the staining is is when a fire is burning
9 something, we all know it turns black. And so if you
10 have a rock and the fire is burning on one side heavier
11 than the other side, then that rock or whatever is
12 burning is either going to be consumed or it's going to
13 be stained with smoke or whatever coming off the fire.

14 Q. Okay. So our area of origin would be below the
15 area shown in the fire here?

16 A. Be in the direction of the arrows, yes. And in
17 this photograph you can kind of -- you can kind of see
18 it. You don't have the color version, but there's black
19 on this side and white on this side which would be the
20 fire pressing more on one side of the rock than the other
21 side just like if you were in a campfire. The inside is
22 black and the outside is not.

23 Q. All right. Exhibit 560 do you recognize?

24 A. I do.

25 Q. Could you explain Exhibit 560 to us.

26 A. It's just a wider view of what appears to be the

1 earlier photograph. We're showing the protected fuels
2 which are areas of unburned fuel which means the fire was
3 not in that area. You're showing consumed fuel which is
4 where the fire had burned and the staining on the rocks
5 which is an indication of which direction the fire came
6 from and then an arrow pointing toward the origin of the
7 fire.

8 Q. And 561. Do you recognize 561?

9 A. Yeah.

10 Q. Can you explain 561 to us.

11 A. Five sixty-one is the base of the tower in
12 relation to the broken jumper, the broken jumper which
13 would be part of the tower above this. And this is a
14 perfect example of the consumed fuels versus unconsumed
15 fuels. So in this area we have the protected fuels in
16 green, which is the area the fire didn't consume heavily.
17 It consumed fuel where the fire stayed longer and had
18 direct impact on those fuels and burned. And then the
19 origin of the fire is pointing off just to the upper
20 right portion of this picture.

21 Q. All right. Moving on to 562.

22 A. Yes.

23 Q. Describe for us 562.

24 A. Five sixty-two is similar to the earlier exhibit
25 where it shows the origin, the base of the tower, the
26 broken jumper, and where it was supposed to connect.

1 Q. Okay. All right. Exhibit 563. Do you
2 recognize 563?

3 A. I do.

4 Q. What is 563?

5 A. Five sixty-three is a map of the power line and
6 the broken jumper and the specific origin area of the
7 fire.

8 And it's okay if I stand up?

9 Q. Absolutely.

10 A. This (indicating) is the tower. These are the
11 power lines. And this is the jumper, and where the
12 jumper is supposed to be connected is here. And then
13 this is identifying the specific origin area of the fire
14 directly underneath where the jumper was supposed to be
15 connected.

16 Q. And again, how did you determine that the
17 specific area of origin was directly below the
18 disconnected jumper?

19 A. Using the macro and micro indicators displayed
20 by the fire.

21 Q. And 564. What are we looking at?

22 A. It's just a closer-up sketch. Power lines,
23 tower, showing the properly -- this one actually is good
24 because it has properly connected jumpers and conductors.
25 And this one shows the broken jumper line and conductors
26 and where the specific origin of the fire was underneath

1 that area of the broken jumper.

2 Q. Now, I want to spend sometime with you in the
3 specific area of origin. Explain what the notations
4 mean. There's triangles and horseshoes and arrows.

5 A. Okay. This obviously is not to scale. The
6 arrows on this are going to show where the fire was
7 burning. This is going to show the lateral movement, and
8 these views are showing the backing.

9 Q. Okay. Remember, we need to have it so that the
10 court reporter can take it down what you're talking
11 about. And when you're saying "this" and pointing at
12 stuff --

13 A. Sure.

14 Q. First off, let's do a little foundational on
15 this. When you say a sketch, this is actually a
16 hand-drawn sketch; correct?

17 A. Correct.

18 Q. It's not to scale?

19 A. Correct.

20 Q. All right. So walk us through each of the
21 symbols identifying the symbol and what it means.

22 A. In this sketch the three arrows facing to the
23 right side of the photo are indicating the direction that
24 the fire burned which in this photo would be uphill. And
25 you can't see that.

26 The triangles -- there's four triangles opposite

1 of each other, the circle and an "X" in the middle. The
2 triangles are going to be indicating lateral movement of
3 the fire.

4 The "U"s -- there's two rows of "U"s that each
5 have three and a row of "U"s with two. They're going to
6 indicate backing. And then the circle and the "X" is
7 going to indicate the specific origin.

8 Q. All right. You said that you contacted PG&E to
9 obtain records regarding the Caribou-Palermo line on
10 September 30th, 2008.

11 A. Uh-huh, yes.

12 Q. And do you recognize Exhibit 565?

13 A. I do.

14 Q. What is Exhibit 565?

15 A. This is the report that we received when
16 requesting the interruptions on the line from PG&E.

17 Q. And what does the report you received from PG&E
18 indicate?

19 A. It says "Text" in this portion here
20 (indicating). "Palermo 152 open, which open ended the
21 Caribou-Palermo 115 line," which is an indication to me
22 or my understanding that there was a failure in the line
23 somewhere at that time on that date.

24 Q. And is there a time as to when that occurred?

25 A. Here it says "Start 9/30/2008 1402, ended
26 9/30/2008 1415."

1 Q. What time approximately did the Rock Fire start?

2 A. In this report, I think the first initial report
3 from the Rock Fire was 2:05. Let me confirm. It was
4 approximately 2:30 when it was first reported, which in
5 this situation would be 14:30 which would be 15 minutes
6 after showing that it ended.

7 Q. Based upon your investigation, the photographs
8 we've gone through, and everything you looked at, did you
9 form an opinion as to what caused the Rock Fire?

10 A. The broken jumper.

11 Q. And upon what did you base that opinion?

12 A. I based that off my training and experience.
13 And going through the fire examination that is the only
14 thing, only evidence the fire could occur was based on
15 the power line.

16 MR. NOEL: Okay. I believe that's all I have.

17 Do we have any questions from the jury or from
18 the jurors? All right. We have some questions from the
19 jurors themselves to follow up.

20 THE WITNESS: Okay.

21 BY MR. NOEL:

22 Q. In your fire experience how often would you
23 estimate the fires are the result of broken or defective
24 power line equipment?

25 A. That's a good question. I was in the Plumas for
26 two years. And half of that time it is under snow. So

1 to be honest, I can't recall how many power lines, but I
2 know that from speaking with other investigators that are
3 fire investigators in the same general area that it's not
4 an uncommon occurrence.

5 MR. NOEL: And remember, Ladies and Gentlemen,
6 that limited instruction you've been given with regard to
7 hearsay.

8 BY MR. NOEL:

9 Q. When investigating a fire caused by broken or
10 defective power line equipment, do you research and
11 record the age of the equipment involved?

12 A. In this particular investigation we did not.

13 Q. Why not?

14 A. For me as the fire investigator the age of it
15 may have caused it, but what I'm there for is to find out
16 what caused it, not why it was caused. So it could be
17 300 years old. I don't care. That's what caused it.

18 Q. And going back what was the total area of this
19 fire?

20 A. Five acres.

21 Q. So was that a relative small fire?

22 A. Yes. And not only was it a relatively small
23 fire, it was extremely remote. It didn't burn any
24 structures and no one was hurt. It was really low.

25 Q. So would it be safe to say that your
26 investigation was limited solely to the origin and cause?

1 A. Yes.

2 MR. NOEL: Anything else? Does anybody else
3 have any questions? Any follow-up? I see nothing.

4 I'm going to give this back to the clerk.

5 Madam Foreperson will have an admonishment for
6 you.

7 GRAND JURY FOREPERSON: Agent Mortensen, you are
8 admonished not to discuss or disclose at any time outside
9 of this jury room the questions that have been asked of
10 you or your answers until authorized by this grand jury
11 or the Court. A violation of these instructions on your
12 part may be the basis for a charge against you of
13 contempt of court. This does not preclude you from
14 discussing your legal rights with your own attorney.

15 Agent Mortensen, what I have just said is a
16 warning not to discuss this case with anyone except the
17 Court, your lawyer, or the district attorney.

18 Do you have any questions?

19 THE WITNESS: I do not.

20 GRAND JURY FOREPERSON: Okay. Thank you for
21 your time today.

22 THE WITNESS: Thank you.

23 MR. NOEL: Just don't take the exhibits with
24 you.

25 THE WITNESS: Okay.

26 MR. NOEL: We have had that happen.

1 THE WITNESS: I'll give them to you right now.

2 MR. NOEL: Thank you.

3 THE WITNESS: Thank you.

4 MR. NOEL: I'll hand the exhibits to Madam

5 Clerk.

6

7 [DISCUSSION OMITTED.]

8

9 [Matter adjourned at 11:05 a.m.]

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COURT REPORTER'S CERTIFICATE

This is to certify that I, Lisa McDermid Welch, a Certified Shorthand Reporter of the State of California was present at the time and place the foregoing grand jury proceedings were had and taken in the within matter; and that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings; and afterwards caused my said shorthand writing to be transcribed into typewriting; and the foregoing pages, beginning at the top of Page 1 to and including Page 57 hereof, constitute a full, true, accurate, and complete record of the proceedings.

DATED: This 6th day of June, 2022.

Lisa McDermid Welch

LISA MCDERMID WELCH, CSR, RPR
CSR LICENSE NO. 10928

1 IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA
2 IN AND FOR THE COUNTY OF BUTTE
3
4

5 IN RE:) **REDACTED**
6)
7 CONFIDENTIAL GRAND JURY)
8 PROCEEDINGS) BCSC-2019-GJ-01
9)
10 _____)
11)

12 **REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS**

13 **TUESDAY, OCTOBER 22, 2019**

14 **VOLUME 22**

15 **OROVILLE, BUTTE COUNTY, CALIFORNIA**

16 **LISA MCDERMID WELCH, CSR 10928, OFFICIAL COURT REPORTER**
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1 OROVILLE, BUTTE COUNTY, CALIFORNIA

2 OCTOBER 22, 2019; 8:40 a.m.

3 (Confidential Special Grand Jury Hearing Proceedings)

4
5 [PROCEEDING OMITTED.]

6
7 [Recess taken from 8:43
8 until 8:50 a.m.]

9
10 [ROLLCALL OMITTED.]

11
12 [DISCUSSION OMITTED.]

13
14 [Witness enters the courtroom.]

15 GRAND JURY FOREPERSON: Mr. Maslowski, before
16 you have a seat, please raise your right hand to be
17 sworn.

18 Mr. Maslowski, do you solely swear that the
19 evidence you shall give in this matter pending before the
20 grand jury shall be the truth, the whole truth, and
21 nothing but the truth so help you God?

22 THE WITNESS: I do.

23 GRAND JURY FOREPERSON: Thank you. Have a seat,
24 please.

25 **EXAMINATION**

26 BY MR. NOEL:

1 Q. Mr. Maslowski, for the record could you state
2 your full name spelling your last name.

3 A. Yes. My name is Rodney Joseph Maslowski,
4 M-a-s-l-o-w-s-k-i.

5 Q. Mr. Maslowski, are you currently employed?

6 A. Yes, I am.

7 Q. And by whom?

8 A. I am employed by Flynn Resource Consultants,
9 Inc. often called Flynn RCI. I'm a part-time consultant.

10 Q. Consulting in what?

11 A. Matters associated with power systems.

12 Q. What types of matters with power systems?

13 A. Well, maybe describing some of my recent work
14 would cover that.

15 Q. Go ahead.

16 A. Our client -- current client -- one of the
17 current clients that I'm involved with is the City of San
18 Francisco. You may be aware that they made an offer to
19 purchase the PG&E facilities in San Francisco. So behind
20 the scenes there's been a lot of financial and legal and
21 technical consultants advising how that could take place.
22 I'm one of those technical consultants.

23 So I'm not trying to decide whether it's a good
24 idea or not. I'm trying to decide what it's going to
25 cost. But if you were going to purchase a system, what
26 would be the facilities that would make sense? That's

1 one of them.

2 Also again the town or city of San Francisco.
3 It's a different arrangement in San Francisco. San
4 Francisco has customers. They have several thousand
5 customers metered. They have power sources such as the
6 Hetch Hetchy Reservoir. So these customers are getting
7 their power from San Francisco, but the delivery system
8 is PG&E and their wires. So there's a relationship
9 there. San Francisco pays for the use of the wires.

10 After 2015 there was a new contractual
11 arrangement between the two parties as to how that power
12 would be delivered and who would pay for what. And that
13 has changed substantially, caused a lot of problems from
14 San Francisco's appoint of view. And so I have been
15 advising about what are the right ways to connect things?
16 Are there things within that? It's a wholesale
17 distribution tariff; WDT. Are there issues with the WDT
18 that should have been addressed?

19 And there were hearings to present San
20 Francisco's point of view and to try to resolve some of
21 those issues.

22 To my knowledge, the Federal Energy Regulatory
23 Corporation, I think it is, has not ruled on those things
24 yet after several years. So it's on hold. But that was
25 one of my roles too. I testified there.

26 Q. During your time with Flynn, have you previously

1 been asked to testify in proceedings involving PG&E?

2 A. I did testify before the FERC. And that
3 involved PG&E. That was with respect to the wholesale
4 distribution tariff.

5 We currently have filed my testimony in a
6 specific connection situation where they were going to
7 take power to a new muni-transit station. It goes by the
8 acronym of Six Berry. And we are contesting how that
9 connection was made and how certain facilities were
10 charged. That is in the -- I don't know all the legal
11 terms, but I provided testimony. Somebody has come back
12 and then we've gone back cross-answering, I think.

13 And then we've also received testimony from a
14 FERC technical witness -- FERC Federal Energy Regulatory
15 Corporation technical witness -- on the engineering
16 aspects of that case.

17 Q. What is your educational background that
18 qualifies you to advise on these types of matters?

19 A. I have a degree in electrical engineering from
20 University California Berkley, graduated in 1970. I also
21 have an MBA from Saint Mary's College in Moraga. I think
22 that was 1992 or 1993. So that's my educational
23 background.

24 I'm a registered licensed engineer in
25 California, an electrical engineer. And I have 35 years
26 of working experience at PG&E.

1 Q. That would be the next question.

2 A. Well, you're talking about credentials.

3 Q. You took my surprise away.

4 A. To be frank, I think my experience qualifies me
5 as much as anything with respect to doing this testimony
6 as school.

7 Q. Bingo. How long have you been with Flynn?

8 A. I would say I've been with Flynn for probably
9 approaching ten years.

10 Q. By whom were you employed prior to Flynn?

11 A. I have also had consulting arrangements with a
12 company called Nexant, N-e-x-a-n-t. I believe that was a
13 spinoff of Bechtel. And I also did work for somebody
14 called Energy Experts International. So those were
15 shorter. And then Flynn is the only place I've been.

16 Q. More consulting within the technical energy
17 sphere?

18 A. Pretty much, yeah.

19 Q. And prior to that by whom were you employed?

20 A. Oh, prior to that I was employed by Pacific
21 Gas & Electric Company from 1970 through 2005.

22 Q. Walk us through your PG&E career, what you did
23 for PG&E, jobs you held.

24 A. Sure. I actually had three summers with PG&E
25 prior to going to work for them in 1970. That was in
26 Fresno. And that was part of an intern program. So I

1 read meters one summer. And I actually was out on a line
2 crew in Fresno one summer and then I was in the
3 engineering office in Fresno. That was really an entre
4 to getting employment after I got out of school.

5 From there I started in San Francisco in the
6 local office as a planning engineer. Planning engineers
7 are the people that look at the capacity of the lines
8 relative to the load they're serving and decide if they
9 need a new substation, if they need a new line.

10 Also if there were reliability issues, too many
11 outages, or other problems, the planning engineers would
12 look at that. So I did that for several years. I was an
13 individual contributor. Nobody worked for me.

14 I moved from there across the East Bay to
15 Concord after several years and I became a planning
16 engineering supervisor. So now I had people doing the
17 studies and I was in charge of them.

18 I kind of bounced back and forth between San
19 Francisco and the East Bay. I came back to San
20 Francisco, and now I had engineers and service planners.

21 Service planners are the people when you call up
22 and say "I've got a new building and I want to get power
23 from PG&E. You know, what will it take? How will that
24 be designed?" There's various rules about who pays for
25 what and stuff like that. So I had service planners.

26 Eventually in San Francisco I had construction

1 work force under my management as well as the engineering
2 and technical staff. So these were the local linemen,
3 and this was in San Francisco. So it was a lot of
4 underground workers to build and take care of and
5 maintain the system. All of these jobs were completely
6 focused on distribution facilities. There was no
7 transmission or substation responsibilities as I recall.

8 I did come in to the general office. So there's
9 the corporate headquarters, so-called general office or
10 GO, and there's local offices. So all this time I had
11 been in the local office. I came into the general office
12 in department. And I was in a transmission and
13 distribution department. I was sort of the T&D's
14 representative with respect to planning and expansion of
15 the power system.

16 There was a separate department for planning and
17 transmission systems and making recommendations. And you
18 had an operating department that had a point of view on
19 what would be a good way or bad way to do that. So that
20 was my job is to represent an operating point of view as
21 to how this expansion was going to take place.

22 I'm not remembering the exact dates, Marc,
23 but --

24 Q. That's okay.

25 A. I believe that -- I believe I'm correct in 1986
26 I was made a department manager in the general office in

1 the headquarters. And that was for distribution
2 engineer. So at the corporate level we were doing
3 planning. We had the system databases. We had other
4 stuff that was used by the various regional offices.

5 And one year later I believe roughly I became
6 the manager. I was called a manager of electric T&D. So
7 that basically took the responsibilities I had for this
8 distribution engineering group and folded in some
9 additional responsibilities.

10 I believe it coincided with the retirement of
11 the gentleman that had been doing the T&D department
12 before. I don't remember exactly. I presume -- I
13 believe it was sort of a complete transfer of his
14 responsibilities, but there's a possibility that some
15 other things may have gone someplace else. I just
16 honestly don't remember.

17 I'm going to close up here pretty quick. In
18 '91 -- so all my jobs previously had been what I would
19 call technical jobs. I was responsible for some part of
20 the system. I was designing, I was, you know,
21 supervising people who designed, who took care of things.

22 I became something called a division manager.
23 There are 13 divisions in PG&E. And those are the local
24 offices that are running PG&E for that local office. And
25 that would include customer service reps, that would
26 include marketing reps, that would include the

1 construction work force and linemen, the emergency
2 responders, the gas department, the building department.
3 It was like a small little business there. And so I was
4 in central and eastern Contra Costa County as the Diablo
5 Division manager.

6 I believe it was 1995 where I changed jobs again
7 and I came back into the headquarters. And I was the
8 manager of system operations. System operations was the
9 transmission level dispatchers and engineers that are
10 monitoring and running the grid 24 hours a day. How much
11 generation? Which lines are in and out for work?

12 I guess that's enough of a description.

13 There were a few adjustments in those
14 responsibilities over time. I believe at one time the
15 transmission planning department I mentioned earlier and
16 how there's people out there identifying plans for the
17 future, growth, they were brought in under my
18 organization too. It's called the Electric Transmission
19 Planning and Operations.

20 So it's an interesting mix if you're familiar
21 with those kinds of responsibilities. The planners are
22 looking out five years and the operators are looking out
23 five minutes. So that was, you know, an interesting mix.

24 I believe the planners got peeled off again.
25 And at the end I was pretty much running system
26 operations until I retired.

1 Q. As part of your job as system operations, did
2 that include communicating with or reporting to the ISO?

3 A. It certainly did. In the course of my job there
4 was a substantial change in the way the power system is
5 operated in California. And that was the creation of the
6 California Independent System Operator. In addition to
7 that there was a California Energy Market Place that came
8 in as well.

9 So I was in charge of PG&E's operation at the
10 time the -- I'll just use the term ISO, California
11 Independent System Operator, when the ISO came in. So
12 behind the scenes there were many of us that were working
13 to figure out how to make that happen. It's not a
14 trivial task. But in the course of things people were
15 hired, systems were installed, and the operational
16 control of the utilities grid in California was turned
17 over to California ISO. And I believe that was roughly
18 in April of 1998.

19 Q. From your perspective as a PG&E management
20 person dealing with the ISO, what were the
21 responsibilities or what did PG&E have to do with the
22 ISO?

23 A. Well, the ISO was an overlay over PG&E's
24 operations. They were still a control center at PG&E.
25 They managed day-to-day activity. There was a control
26 center in Southern California Edison. Same thing.

1 Control center San Diego Gas and Electric. So it was
2 over the top of those.

3 And by that I mean that they had the ultimate
4 control and decision making on -- let's say next week I
5 want to take a line out of service from "A" to "B"
6 because it needed to have some maintenance on it. They
7 had to approve that change. Conversely, if they issued
8 some sort of an operating order, whatever that might be,
9 it was the utility's duty to enact that order.

10 For example, if they said de-energize a line for
11 some reason, whatever that might be, we did that.

12 I could remember a situation where my dispatcher
13 received an order to do something called backing Diablo
14 Canyon. Backing means turning down the energy from
15 Diabale Canyon. And my dispatcher declined to turn down
16 the energy. And the next day we had a discussion that
17 "You follow the orders. We'll sort it out after the
18 facts." So they really had the ultimate authority.

19 Q. And just to put on the record, what kind of a
20 facility is Diablo Canyon?

21 A. Diablo Canyon is 2,200 megawatt nuclear power
22 plant. And essentially -- it probably still is the case
23 now, but it's called base load. You turn it on and let
24 it run. That is the best way for that kind of plant to
25 run. It's not used to being adjusted one way or the
26 other unlike load-following units that are built to

1 adjust and change. Not use.

2 Q. Can you give us an example of what would be the
3 load-following unit in generation?

4 A. Well, there are various kinds, but probably
5 typically those that are gas-fired units. They tend to
6 be smaller so they're a little bit more flexible. You
7 know, a reasonable size gas unit might be 3 or 400
8 megawatts.

9 The power units at Diablo Canyon are 100,100
10 megawatts each. And there's two of them. So they are
11 big. They're just not made to be, you know, moving up
12 and down very much.

13 Q. Would hydroelectric be considered to be --

14 A. Yeah, load-following.

15 Q. -- load-following?

16 A. Yeah, I think hydro could. The hydro plants are
17 complicated with respect to there's water, dispatching
18 requirements in addition to generation. And most water
19 arrangements are water first, generation second. So a
20 little less able to count on that.

21 Now, if you have to dispatch the water, you
22 dispatch the water. And you're going to make electricity
23 if you do that.

24 Q. All right. What were you doing in 1987?

25 A. Well, I -- through reading various documents
26 that refreshed my memory, in 1987 I was the manager of

1 Electric Transmission and Distribution in PG&E corporate
2 headquarters.

3 Q. Let's go into depth a little bit more about your
4 job as manager in the Electric Transmission and
5 Distribution and exactly what that entailed.

6 A. I don't have a great recollection on exactly
7 what the job was, but I had various groups under my
8 manager. In the typical structure there's a manager,
9 there's some sort of second-level supervisor over a team
10 of individuals that are doing certain work.

11 Now, that work could have been what kind of
12 vehicles to purchase for the line workers? What kind of
13 tools? What kind of work procedures would be utilized?
14 There could be also not for transmission but for
15 distribution some engineering standards or specifications
16 for material. So it was -- that's a general description
17 of things.

18 Q. And did you say earlier you were in that
19 position from 1987 or thereabouts to 1991?

20 A. I believe that is correct, yes.

21 Q. Do you recall while you were the manager of the
22 Electric Transmission and Distribution a program by which
23 PG&E created a new classification entitled transmission
24 troubleshooters?

25 A. I remember the classification. I remember the
26 creation of that. I would be unable to say exactly when

1 that happened.

2 Q. Okay.

3 A. You know, if there was information that it was
4 in '87, I wouldn't be in a position to disagree with
5 that.

6 Q. When -- well, let me ask you this: Did you know
7 (WITNESS #17)?

8 A. I do know (WITNESS #17).

9 Q. Do you remember (WITNESS #17)?

10 A. I remember him well. He's an extremely calm
11 person.

12 Q. Was he one of the persons that reported to you
13 in your capacity as the Electric Transmission and
14 Distribution manager?

15 A. You know, I don't remember exactly. My sense is
16 to say no. One of the things about the way the
17 organization works is you have a corporate headquarters
18 organization that's providing policy, directives, and
19 information that is implemented by the regional
20 organizations where the actual transmission troubleshooters
21 and other line workers and people like that work. So
22 they work for -- so I work for a vice president of
23 electric operations. They work for a regional vice
24 president.

25 So (WITNESS #17) may have been implementing
26 things that came out of my department, but I don't

1 believe he worked for me. If you tell me he did, I will
2 just have to trust you on that.

3 Q. You were talking earlier and most of your
4 experience up to that point was in the distribution side;
5 correct?

6 A. Yes. I will say specifically my experience was
7 in distribution. And it was in the -- the, you know,
8 management, development, and expansion of the system.
9 There are engineers at PG&E that are writing engineering
10 standards about, you know, how thick the insulation on a
11 cable has to be, what size transformers should be
12 installed, et cetera. I did not do that kind of work.

13 Q. When you moved into the Electric Transmission
14 and Distribution management, did you receive any training
15 in transmission? The transmission system itself?

16 A. I did not.

17 Q. So in front of you you have a document marked as
18 Exhibit 608. There should be a white exhibit tag in the
19 top right corner. Do you see that?

20 A. I have that, yes. Thank you.

21 Q. And do you recognize that document?

22 A. I do from the fact that I have seen it. I would
23 have been hard pressed to exactly describe it just out of
24 the cold.

25 Q. All right. We have 608 up here on the big
26 board. So 608 appears to be a memo signed by yourself.

1 Is that correct?

2 A. I think what you have here is the cover letter
3 that --

4 Q. Cover letter; right?

5 A. -- was actually distributed it. You know, the
6 document underneath is actually the bulletin or the
7 standard which I signed. This was signed for me by the
8 secretary.

9 Q. Okay. How can you tell that?

10 A. Well, I can tell because that's not my
11 handwriting, A, and, you know -- well, this is "Rod J."
12 and this is "RJ" and then her initials are here best I
13 can tell.

14 Q. Okay.

15 A. But it was not unusual once, you know, the real
16 document was made for a secretary to take and distribute
17 it. That was more efficient to get it done that way.

18 Q. Let's walk through this starting at the top. We
19 have the term "Information Bulletin" and then "Division
20 Department Transmission and Distribution Electric
21 Operations." Is that correct?

22 A. That's correct.

23 Q. That is the division that you were managing at
24 this time?

25 A. I was managing the T&D department. Electric
26 operations was the -- a bigger umbrella. So there would

1 have been other departments besides the transmission and
2 distribution. There probably was a substation department
3 and there was a -- there would be other departments.

4 Q. Then we have -- some of this is cut off in the
5 way it's been preserved. I'm guessing that in 1987 this
6 was probably manually typed out and copied on a Xerox.

7 Would that be about right?

8 A. Probably. If you make a change, you use
9 Whiteout so . . .

10 Q. So this is dated November 25, 1987; is that
11 correct?

12 A. That's correct.

13 Q. And it says "The Transmission and Distribution
14 Bulletin Manual Change Notice Number 85." Is that right?

15 A. That's correct.

16 Q. Can you explain what is a Transmission and
17 Distribution Bulletin Manual Change Notice.

18 A. Well --

19 Q. What number 85 means?

20 A. Yeah. Well, first of all, it's not a manual
21 change. It's a change to a manual. So there was a
22 binder of T&D bulletins that addressed various issues,
23 aspects, things that would not necessarily be an
24 engineering standard but maybe there was a work
25 procedure. Maybe there was something about utilization
26 of certain equipment or . . .

1 You know, I'm sorry. I'm not remembering
2 exactly, but there would have been multiple bulletins.
3 And apparently these bulletins had been changed 84 times.
4 There was not 84 changes of this bulletin, but it was the
5 84th change -- or excuse me, the 85th change of all the
6 bulletins in that manual.

7 Q. So somewhere out there there should have been a
8 policy manual or policy binder for persons in the
9 Electric and Distribution -- in Transmission and
10 Distribution Electric Ops Department?

11 A. Well, not only would there be manuals in the
12 department that created them, there would be manuals in
13 the user community out on the other end of this thing
14 that were implementing these things. You know, if you
15 went into an office, you'd find engineering standards,
16 you'd find other corporate policies and procedures, and
17 you'd probably find a binder of T&D bulletins.

18 Q. Okay. And it goes on. And this is addressed to
19 "Holders of transmission and distribution bulletin
20 manuals."

21 Would that be the people you're talking about?

22 A. That is the community I'm talking about.

23 Q. All right. "The attached revised bulletin
24 should be inserted into your manual." And then we have
25 this "Section 1: Insert and remove."

26 Can you kind of explain to us how to read that

1 real quick.

2 A. Sure. So I presume if you would have opened up
3 a manual at that time, there was a preexisting bulletin
4 on patrolling and inspecting. And that would have been
5 noted as Revision 5 suggesting there'd also be a four,
6 three, two, one and the original. So this thing has
7 evolved or developed over time. And so the idea was to
8 remove number five and put in number six.

9 Q. So this is to take the place of number five?

10 A. Sure.

11 Q. Now, number five says it was effective
12 December 1, 1984. This bulletin -- this revision number
13 six is to be effective November 1, 1987.

14 So three years approximately; right?

15 A. That's right.

16 Q. And when we get to later on in the bulletin
17 going through the meat of the bulletin itself, one of the
18 things that it says is "This should be revisited in 1990
19 and either reissued or changed."

20 So do you remember was there a three-year cycle
21 or three-year rule for revisiting the manuals or the
22 policies and procedures?

23 A. I would not have been able to specify three
24 years if I had not read it. I don't remember three
25 years, but I would say just on a general basis it was
26 always the expectation that documents had a review

1 period. They either were only effective for a period of
2 time or they were effective until the next review. This
3 wasn't going to go away but only be updated.

4 So yeah, things change in three years. I don't
5 think you had to wait for three years if there was a
6 substantial change. But on the other hand, you know, if
7 there were small things to be changed, they might be
8 accumulated and updated on that three-year cycle.

9 Q. So this is revision six. We know they're
10 supposed to remove revision five. So based upon that
11 should we assume that there are probably five previous
12 editions of this bulletin out there somewhere?

13 A. I would agree with that, yes.

14 Q. And using the three-year rule, that would
15 basically take us back to about, what, 1972?

16 A. That's right if the three-year rule was
17 retroactive.

18 Q. All right. So this is for -- this is a bulletin
19 for routine patrolling and inspection of transmission
20 lines; is that correct?

21 A. That is correct.

22 Q. Can you go through the -- read for us the body
23 and explain any -- explain just what that means.

24 A. Well, as with other changes and procedures the
25 supervisor is always responsible for assuring that
26 subordinate employees who use the above information but

1 are not assigned a manual are made aware of changes.

2 So I can imagine -- I don't know who the exact
3 recipients of the manual were. But if you had a team of
4 linemen who implemented these things or other workers for
5 that matter, they would be made aware of it. It would --
6 you know, these people don't necessarily have offices
7 where we would put a binder and that kind of stuff. So
8 that might be a reason why we didn't have the manual.

9 "When the change notice is inserted, please show
10 date inserted, enter bulletins attached, and initial the
11 appropriate change notice number on the change log notice
12 in front of the manual."

13 I think this was a procedure to verify that
14 people actually put the thing in there and that they were
15 using the latest version. There is always, you know,
16 version control issues when you have a lot of documents.
17 So somebody could open up the thing and see, oh, version
18 six, you know, roughly in that timeframe.

19 "In order to assure the use of the latest
20 transmission and distribution bulletins, new and revised
21 bulletins should be inserted when issued and the old
22 bulletins removed."

23 So I think the idea there was you didn't have a
24 mess of one through four or five sitting underneath
25 there. Basically you operated from the most recent
26 version.

1 Q. All right. So then we already talked about your
2 signature line. And down here it looks like there's a
3 "cc" on here. Do you see that?

4 A. No. It's "CSBille." I believe that is
5 B-i-l-l-e. That's a person named Connie Bille. So
6 that's her initials.

7 Q. Do you remember who Connie Bille was?

8 A. Part of the administrative team for the
9 organization. She would not be a technical person to my
10 recollection.

11 Q. All right. And then reference to "JP" on here.
12 Do you remember who that person is?

13 A. I don't.

14 Q. Okay. And finally on this page down way in the
15 bottom "T&D mailing list." Do you recall what is the T&D
16 mailing list or who's on it?

17 A. I don't. I don't recall it. I don't know who's
18 on it.

19 Q. All right. Let's flip over now to page 2 and
20 the actual meat of this document. So I know this was a
21 long time ago. But before we get into the meat, can you
22 kind of explain to us your role in the creation of this
23 document.

24 A. Okay. I was a department manager. As I
25 described earlier, there were second level supervisors
26 between me and frontline people doing the work. So as a

1 manager I was responsible for, you know, running the
2 organization. I was responsible for setting goals,
3 objectives, priorities, et cetera. I'm not saying there
4 aren't managers who also tried to do some of the specific
5 work. That was not me. It wasn't my job to do my
6 employees' job.

7 And frankly, particularly when it comes to
8 transmission lines, I am not a transmission line hardware
9 expert. So it was my job to inquire, ask questions,
10 understand who I could trust and move forward with that.

11 Q. All right. First off, in all caps the very
12 first line of the body says "REGIONAL VICE PRESIDENTS."
13 Is that to whom this is addressed or --

14 A. I believe that is correct, yes.

15 Q. So this is something that you were submitting to
16 those above you for what reason?

17 A. We were submitting it to the regional vice
18 presidents to be implemented. It was -- you know, later
19 on it was developed in the course of people that were
20 under these regional vice presidents. It was a bit of a
21 collaborative effort. And it's curious that I, as a
22 manager, was telling the vice presidents what to do, but
23 I think that is kind of what was going on here.

24 Q. And so the memo itself is addressed to the
25 regional vice presidents but the cover page, the cover
26 letter that we have on there is addressed to the

1 Transmission and Distribution Department itself. So from
2 that should we assume that this was approved by the
3 regional vice presidents and now it's being distributed?

4 A. I would not have that expectation. It was
5 actually going to the holders of the manuals under these
6 guys.

7 Q. Right.

8 A. And women.

9 Q. But now that -- you know, the fact that you were
10 distributing this to the people who'd actually be
11 implementing it, would that indicate that this -- the
12 changes in this provision had been approved by the
13 regional vice presidents?

14 A. I can't explain it, but I don't think that they
15 were in the approval process.

16 Q. Okay. All right. So walk us through this.
17 Let's start off with the very first section; the policy.
18 Can you read us the policy and explain to us what you
19 recall about the policy.

20 A. Sure. "It is PG&E policy to patrol all
21 transmission lines and inspect supporting structures,
22 associated hardware, and right-of-way with the frequency
23 and detail given in Section II below. The Regions
24 perform patrols to ensure that the transmission
25 facilities are in good repair in order to maintain a high
26 standard of service reliability and safety. This policy

1 is consistent with Section III of G.O. --" which stands
2 for General Order 95 parenthetically which is the state
3 power system code.

4 Q. CPUC?

5 A. CPUC. Excuse me. "-- which outlines the
6 requirements for all lines.

7 Information concerning patrols and repairs shall
8 be maintained in a database and retained for a minimum of
9 five years. This will allow easy retrieval of data
10 necessary to evaluate trends, identify areas for
11 improvement, and prepare reports to regulatory agencies."

12 Q. So the first thing -- we're talking about
13 database. Now, this is a 1987; pre-Internet. Did you
14 guys have computers and a computerized database for the
15 storing and managing of this type of reports?

16 A. I don't specifically remember. In the document
17 itself we refer to something called the CONDOR database.
18 So I presume that's some sort of way to accumulate
19 information. I have no recollection of CONDOR. I
20 couldn't tell what you it was like, but certainly there
21 were computers.

22 Q. Now, the -- going back up here to the section.
23 "This policy is consistent with Section III of G.O. 95."

24 And you started talking G.O. 95 is General Order
25 95. And that's CPUC; correct?

26 A. (Nods head.)

1 Q. How much experience or knowledge did you have
2 with regard to the CPUC and the regulations of PG&E?

3 A. Well, at the time I was working, I was -- I
4 would say I was probably pretty familiar with G.O. 95.
5 G.O. 95 sets forward things like clearances from lines to
6 trees, clearances from lines to houses, clearances from
7 lines to the ground, and other requirements like that. I
8 would be unable to quote you any of those requirements at
9 this time.

10 Q. What is the relationship between PG&E and CPUC
11 or what was it when you were managing for PG&E?

12 A. They were a regulatory authority that had
13 jurisdiction over PG&E. I don't think there was any
14 dispute that General Order 95 was something to be
15 complied with.

16 Q. All right. Let's move on to Section II:
17 Implementation. And starting off with paragraph number
18 one requirements, if you could read that for us. And we
19 have some questions about it.

20 A. Sure. "Requirements: It is the responsibility
21 of each Region to ensure proper training of personnel
22 conducting line patrols. This is to be accomplished
23 through use of periodic training classes for all
24 transmission troublemen and any other personnel who may
25 be called upon to patrol. The training should include a
26 review of this bulletin, other T&D bulletins as

1 appropriate, patrol safety, Engineering Drawing 022168,
2 and G.O. 95 requirements. The use of available
3 videotapes (spacer damage, infrared patrolling, et
4 cetera) is encouraged. Particular attention should be
5 given to the specific items listed on the code sheet that
6 is provided with this bulletin. The Transmission and
7 Distribution Department will assist the Regions in
8 setting up and conducting the training classes."

9 Q. Now, we'll get into some specifics there later
10 in the document. But what do you remember about the
11 troubleman program when you were managing this
12 department?

13 A. I'm kind of -- thinking back, of course, there
14 was not this transmission troubleman classification but
15 there was a troubleman classification. So these were
16 the -- these were people that were on shift pretty much
17 24 hours a day and they were emergency responders. And
18 if there wasn't an emergency, there was other work for
19 them to be able to do.

20 The transmission troublemen was a new
21 classification. It may have even taken some of the other
22 previous troublemen into there. I don't know who staffed
23 it, but I think it was -- provided more focus on the
24 transmission system.

25 Q. Do you recall a specific type of training
26 program or, you know, in-service training or continuing

1 training program for the transmission troublemen?

2 A. I'm sorry. I don't. There was a lot of
3 training at PG&E. There were a lot of turning into, you
4 know, regular -- don't take this the wrong way but people
5 into linemen, line workers. There was a training yard
6 in -- off of Highway 5 where they were trained. And then
7 ultimately that training center was moved into Livermore.

8 So PG&E grew many of their own line workers.
9 And so there could have been a session with respect to
10 transmissions there. I believe there were some
11 transmission towers in the training facilities. But what
12 exactly was done for transmission troublemen, I'm sorry.
13 I can't say.

14 Q. Okay. Next up, number two. If you can read
15 that for us real quick.

16 A. Sure. "Each region shall establish a patrol
17 schedule for all of its lines in accordance with this
18 bulletin."

19 Q. What is a region?

20 A. The region was an organizational construct that
21 was put in. It was kind of like another layer, if you
22 will. And these divisions were subsets of the regions.

23 My recollection is there were six regions. And
24 those regions had a vice president. They had several
25 other staff members. There was sort of an overall -- so
26 the vice president had a manager underneath him and some

1 of the departments nested there. The regional vice
2 president would have had responsibilities for marketing,
3 would have had responsibilities for customer service, and
4 those kinds of things. So there were six of them.

5 Q. Okay. Let's move on to the next page. And
6 paragraph three, please.

7 A. Sure. "Regions shall patrol all transmission
8 lines for which they have been assigned maintenance
9 responsibility, both inside and outside Region
10 boundaries. Where necessary inter-region agreements
11 should be made to avoid duplicating patrols. The results
12 of these patrols are to be documented in sufficient
13 detail to ensure that patrols and noted repairs are
14 scheduled and completed."

15 Q. All right. So inside the regions there are
16 transmission lines; correct?

17 A. That's correct.

18 Q. And if I'm understanding this correctly, the
19 regions themselves are responsible for patrolling the
20 transmission lines within their region?

21 A. Yes. And I think what this was attempting to
22 get to is transmission lines don't necessarily observe
23 organizational boundaries. So you should have -- you
24 could have a line that runs from "A" to "B" and, you
25 know, a portion of that line was in one region and a
26 portion was in another region.

1 So those two might get together and say, you
2 know, "Region 1, you patrol this line between the
3 substation even though that comes into my territory."
4 And then you have another line down in the other area
5 where a portion of it was patrolled by them backing the
6 other guys. Or they could make a determination that "We
7 will stop at the boundaries." It sounds to me like this
8 was suggesting that they work that out.

9 Q. Let's move on to paragraph four. Could you read
10 that for us, please.

11 A. "Regions shall take prudent steps to identify
12 and evaluate any discrepancies noted on patrols.
13 Corrective action should be scheduled and prioritized so
14 that problems affecting safety or which may result in
15 near term line failures are handled without delay.
16 Correction of items affecting the longer term liability
17 of the line should be scheduled in accordance with
18 available budgets and manpower."

19 Oh, sorry.

20 "Repairs to wood pole transmission facilities
21 should be referred to the appropriate Region Transmission
22 Department. Plans regarding major repairs on steel tower
23 lines should be directed to the Electrical Engineering
24 Department with a copy of the request sent to the
25 Transmission and Distribution Department. It is
26 important that the Transmission and Distribution

1 Department also be notified of any maintenance,
2 operating, or hardware problems that may have systemwide
3 impact."

4 Q. All right. How would you define corrective
5 action?

6 A. Corrective action would be to fix the problem.

7 Q. So repair it; right?

8 A. It could be repair or replacement. Let's say,
9 you know, you go out there and a hunter shot at the
10 insulators and several of them are broken. You would
11 take that string down and replace it.

12 Q. Can you please explain to us when it talks about
13 "correction of items affecting the longer term
14 reliability of the line" what is meant by the reliability
15 of the line?

16 A. The reliability of the line, I believe, is the
17 ability to stay in service and deliver electricity.

18 Q. Now, I want to skip down to paragraph "B" or
19 Section B. Right?

20 A. Yes. Okay.

21 Q. Which is entitled "Types of Patrols." It says
22 "Patrols that are referred to in this bulletin are
23 segregated into four categories."

24 And then we move on to page 3 and the first
25 category is ground patrol. Can you read for us what it
26 says about ground patrol.

1 A. Yes. "Ground patrol: This is to be done by
2 vehicle or by foot patrol depending on the terrain.
3 Every structure is to be viewed from all angles needed to
4 accomplish and complete inspection. Where possible the
5 conductor between the towers should also be inspected."

6 Q. Okay. Number two is aerial patrol.

7 A. "Aerial patrol: Aerial patrols are to be done
8 by helicopter."

9 Q. That's all it says about aerial patrols; is that
10 right?

11 A. That's what I see, yeah.

12 Q. And then number three is infrared. I'm not
13 going to ask you to read that entire thing, but if you
14 could briefly describe for us your understanding of what
15 infrared patrol is.

16 A. Sure. Infrared is you use newer technology to
17 scan the line. If there was a hot spot developing on the
18 line, that portion of the line would appear brighter.
19 There would be sort of like a effervescent or something,
20 if you will, about that portion. And the kind of things
21 that could become a hot spot most typically was where
22 connections were made.

23 The wire that you see on those lines that goes
24 forward is not a continuous wire. You run out of wire at
25 the end of the reel and you splice them together. So
26 that splicing point is always -- you know, that's a point

1 of potential problems on the line. So you would scan
2 that.

3 There are other connectors that are connected at
4 the base of the insulator string where it's clamped in.
5 So when there's power flowing on the line, it creates
6 heat. Transmission lines, even when they're operated
7 that way and everything is absolutely fine, they get
8 warm.

9 Matter of fact, the design understands that a
10 power line will sag as it warms up. And part of the
11 limitation on how much you can carry on the line is:
12 Would it sag?

13 So in any case, you want to add -- make sure
14 that the line has some load on it. I'm seeing here it
15 says you should have at least 50 percent of its capacity.
16 Let's say the line had a rating of 400 amperes. So it
17 sounds like you should have 200 on it at least to make
18 sure you see enough warming in the areas where there
19 might be a hot spot.

20 Q. You mentioned in there talking about splicers
21 and connectors. Do you understand and can you briefly
22 explain what the difference is between a splice and a
23 connector?

24 A. Sure. A splice is the point at which, you know,
25 the old reel ends and the new reel comes in. So
26 basically you're taking either end of the connector

1 and -- either end of the conductor and you put it into a
2 sleeve.

3 I think there's different kinds of connectors,
4 but the one I'm most familiar with is like a tube. And
5 you slide either end of the wire in until it's fully
6 inserted. And then they have hydraulic presses that
7 compress that sleeve to make almost like a solid bar out
8 of it.

9 Inside there there's also dielectric grease. I
10 think it goes by the eloquent name of goop. So you wire
11 brush the line, you goop the line, you put the line -- it
12 could be preloaded inside the sleeve and then you press
13 it.

14 I would distinguish that from -- so that is
15 obviously a current-carrying element of that line. That
16 sleeve should be -- you know, the mantra is always make
17 the sleeve better than the line itself.

18 The lines are also connected at the insulators.
19 So you see, you know, the string hanging down or you see
20 the ones out like that. At this point it's not sliding
21 loose there. It is clamped at that location.

22 So that clamp is not a current-carrying element,
23 but I think it's possible if there was wear at that
24 point, it might show on an infrared inspection.

25 Q. Have you ever seen -- or let me back up on it.
26 Are you familiar with the term "parallel groove

1 connectors"?

2 A. I am.

3 Q. What is a parallel groove connector?

4 A. They were called PG, "P" and "G" standing for
5 parallel groove. And as best I recall, a parallel groove
6 connector was a connector that had like two slots. So
7 one connector would go into the top slot and another
8 conductor would go in the bottom slot. And then you
9 would clamp those two together and that became a
10 connection point, a parallel groove. I thought there
11 were parallel groove clamps, but any clamp connecting PG
12 clamps is what was used for a connection.

13 Q. Okay. Are those parallel groove connectors
14 still commonly used in utilities?

15 A. I really can't speak to other utilities. I know
16 at PG&E there came a time where these PG clamps were
17 failing and as a result wire was being dropped on the
18 ground.

19 In my recollection that was a distribution
20 situation, but that's my recollection. And so PG&E went
21 to a program to utilize new clamps for those connections.
22 And I think they went back and proactively replaced some
23 of the PG clamps.

24 Now, the PG clamps in my recollection is not
25 something that would be used to hook two wires together.
26 It's more common if you have a mainline system going

1 through and you tap off -- you go down the street. So a
2 small wire here (indicating). You connect the small wire
3 to the big wire with a PG clamp.

4 There are other clamps too. And I think they
5 went to something called a fire wedge clamp. So that
6 somehow put the conductors in. And you had a wedge and
7 it used a small explosive charge like maybe a shotgun
8 shell or something like that. You activated that and it
9 drove that wedge in to clamp that down. So it was a very
10 much more forceful kind of clamping. It's not something
11 you can take apart by the way but --

12 Q. Yeah. Now, going back, to your knowledge, to
13 your memory, PG&E at some point prohibited the use of the
14 parallel groove connectors; right. Or clamps?

15 A. That's correct.

16 Q. And ordered that all that are in use be replaced
17 by something new?

18 A. Well, I don't remember the part about all of
19 them, but I do remember there was a replacement program.
20 And certainly the new installations did not use the PG
21 clamps.

22 Q. All right. Have you ever seen or were you aware
23 of parallel groove connectors being used in place of
24 splices to fix broken wire?

25 A. I'm not aware of that.

26 Q. Okay. In your experience and your knowledge,

1 your training as an electrical engineering, would that be
2 appropriate?

3 A. Well, it would cause me concern. I think one of
4 the issues if it's in a -- a span of conductors, there's
5 a fair amount of stress on the span. And so the idea of
6 crimping that splice is to make it a strong connection.
7 That -- in my mind a PG clamp would not fit that kind of
8 description.

9 Q. How about if it was a short span?

10 A. No. I don't even know -- you know, long or
11 short it would not be the preferred insulation from my point
12 of view.

13 Q. Are you familiar with the transposition towers
14 on a transmission line?

15 A. Generally speaking, yes. Actually,
16 transposition takes place in a lot of transmission lines
17 even on the wood pole lines.

18 Q. Yep. And we're talking about a jumper cable,
19 say, going from a left phase to a right phase on a
20 transposition tower.

21 Have you ever seen a parallel groove connector
22 being used as a splice on that type of line?

23 A. I haven't. But I will also say that when we're
24 talking about a span of wire, I'm talking about hundreds
25 of feet or longer where there was a great deal of stress.
26 There is almost no physical pulling or stress in general

1 on jumpers other than the weight of the wire itself. So
2 I would be, you know, at least neutral on the ability to
3 use the PG clamp on that kind of jumper cable.

4 When I was describing it earlier about using the
5 PG clamp for a little line going down the street, that is
6 almost an electrical jumper cable there although what I
7 was describing was distribution.

8 Q. Correct. All right. So let's skip over here to
9 number four climbing patrol.

10 A. Oh, read it?

11 Q. Yep, please.

12 A. "Climbing Patrols: These patrols are usually
13 made for a specific purpose such as to check for loose
14 bolts, deteriorated hardware, et cetera. Since climbing
15 patrols will normally only involve a sampling of the line
16 structures, they should be combined with a ground patrol
17 so that an entire line section (all structures and spans)
18 is patrolled. If this is done, the patrol shall be
19 designated a climbing patrol and it will take the place
20 of a routine ground patrol for this line section.

21 NOTE: Towers five years old or newer need not
22 be climbed unless hardware problems unless hardware
23 problems have been detected --"

24 We didn't have spell check back then.

25 "-- have been detected or specific concerns have
26 been raised."

1 Q. All right. So let's work backwards on this. Do
2 you recall why towers five years old and newer would not
3 be need to be climbed?

4 A. I don't think I had any involvement with the
5 determination of five years. I would just say, you know,
6 from general expectations that's pretty much a brand new
7 line, not much in the way of wire tearing or anything
8 else going on there.

9 Q. I think the rest is pretty self-explanatory.

10 Drop down to Subsection C. Can you read for us
11 and explain to us the different classes of lines.

12 A. Sure. "For purposes of determining the annual
13 patrol requirements, overhead and underground
14 transmission lines shall be classified as follows:

15 Class A - all 500 kV and all bundled 230 kV
16 overhead circuits.

17 Class B - all other 230 kV circuits and any 115
18 kV or lower voltage circuit where the failure of that
19 circuit would result in severe overloads or where a large
20 load curtailment would result. Circuits which act as
21 outlets for important generation or act as major area
22 ties should be considered Class B.

23 Class C - all remaining overhead circuits.

24 And Underground - all underground transmission
25 facilities."

26 Q. What does it mean by all bundled 230 kV?

1 A. So the typical transmission line has three
2 phases. So you see three wires that make up the circuit
3 called A, B, and C. The 500 kV and these bundled 230 kV
4 lines use two conductors per phase. So you have twice
5 the capacity as if you had a single conductor.

6 So these were put in because these are major
7 bulk transport lines. They are very high capacity lines,
8 and they use two wires. You can use more than two. You
9 can do three, you could do four per phase. And it goes
10 by the term "bundled."

11 The 500 is already bundled by the way and some
12 of the 230s are bundled.

13 Q. Now, dropping down to Class B, "Any 115 kV or
14 lower voltage circuit where the failure of that circuit
15 would result in severe overloads or where a large load
16 curtailment would result."

17 Can you explain to us what that means.

18 A. Well, in the transmission world there are lines
19 that are network lines meaning that if that line were to
20 go out of service, there is no customer hooked directly
21 to it and the power that flows there would redistribute
22 itself automatically over existing lines.

23 So that means that if they were at some level
24 and the line went out, they would go up. Now, normal
25 planning would suggest that you should be able to take
26 one line out of service and not create these overloads.

1 So I realize what it says here. I can also say unless
2 there was unusual circumstances, there shouldn't have
3 been a severe overload.

4 And then large load curtailment. You know,
5 there's a load that because it's connected to a
6 substation serving a load on the line, if that goes out,
7 it goes out. That could be called a curtailment.

8 Curtailment to me also means that because you're worried
9 about an overload, you curtail the load. You turn some
10 power off.

11 Q. Okay. And then --

12 A. In a generation, well, that -- you know, you
13 need the resources on the system so you don't want to
14 lose the resource.

15 Q. What would be considered important generation?

16 A. Probably in the magnitude of the generation. So
17 I think, you know, if you had a 20 megawatt generator
18 somewhere, it probably wouldn't count as important. But
19 if you're getting into double digit numbers, it might be
20 more important.

21 Q. All right.

22 A. I would also say that, you know, there could be
23 specific locations where that generation is needed to
24 keep the system running at that location. And that would
25 become important.

26 Q. So now we're at D: Frequency of Patrols. Can

1 you read that for us.

2 A. Sure. "Most of these patrols can be
3 accomplished by one transmission troubleman. However,
4 certain aerial inspections, remote locations, and safety
5 considerations may require the use of a second
6 troubleman. Where possible minor repairs should be made
7 during ground and climbing patrols to avoid the need to
8 return to the site."

9 Q. All right. Now we're talking about the
10 different patrol frequencies. And I want to skip down to
11 the Class B circuit.

12 A. Sure.

13 Q. And what were the requirements for patrolling a
14 Class B circuit in 1987.

15 A. Okay. "Class B circuits. A, one annual ground
16 patrol; B, two aerial patrols spaced approximately six
17 months apart; C, one infrared patrol every five years.
18 This may be counted as one of the two annual aerial
19 patrols; D, one annual climbing patrol. Climb five
20 percent of steel structures each year unless a problem is
21 found whereupon the adjacent structure shall also be
22 climbed and expected. Where possible this patrol should
23 be combined with an annual ground patrol to cover the
24 entire line section."

25 Q. So in 1987 on a Class B circuit the PG&E
26 troubleshooters were doing at least one ground patrol and two

1 aerial patrols per year?

2 A. That's correct. They were also doing a portion
3 of climbing.

4 Q. And that is what we're going to get to.

5 A. Sorry.

6 Q. Yep. And then as part of the ground patrol they
7 were also climbing -- were supposed to climb five percent
8 of the steel structures on each line each year? Is
9 that --

10 A. That's correct.

11 Q. So pretty vigorous inspection and patrol
12 schedule at that point?

13 A. I think so, yes.

14 Q. So, for instance, if a line has 446 structures
15 on it, you would expect the troublemen inspecting that
16 line every year to do five percent of that or
17 approximately -- what is that? All of a sudden I lost
18 the math in my head. Five percent of 446 would be --

19 A. It's about 20 towers, I think. Or 25 towers.
20 Somebody got a calculator out there?

21 GRAND JUROR NUMBER SEVENTEEN: You're close.

22 THE WITNESS: I'm an engineer. I guess I'm
23 supposed to figure that out.

24 BY MR. NOEL:

25 Q. So in 1987 that's the standards that were set
26 for the troublemen to inspect and patrol a Class B

1 circuit?

2 A. Right. And I'm also expecting they don't climb
3 the same five percent every year. Hopefully, there's a
4 rotating cycle.

5 Q. And now if we dropped down to a Class C circuit,
6 what was the inspection and patrol requirements for
7 Class C?

8 A. Sure. "Class C, a, one annual ground patrol; b,
9 one annual aerial patrol."

10 Q. So even in Class C, which is the lowest of the
11 transmission, you were doing one ground patrol and one
12 aerial patrol?

13 A. That's correct.

14 Q. Every year?

15 A. That's correct.

16 Q. All right. So let's skip down to F: Patrol
17 Reporting.

18 A. Okay.

19 Q. If you could read that for us.

20 A. "Patrol Reporting: Transmission lines form the
21 backbone of our system and are a critical factor in our
22 ability to efficiently serve the energy requirements of
23 our customers. Many of these lines are located in remote
24 locations and are not easily noticed. Therefore, it is
25 important that the troubleshooters be alert to details and
26 little things that may cause larger problems later on.

1 The troubleman should be made aware of and look for both
2 natural and man-made conditions such as overgrowing trees
3 and vegetation, right-of-way encroachments, structure and
4 equipment problems, and construction activity. Typical
5 items that should be reported during a line patrol are
6 listed in Appendix A. The code sheet in Appendix B can
7 be used as a quick reference."

8 Q. All right. Pretty self-explanatory. We're
9 going to skip over G and go a little bit to H, the
10 recordkeeping. And we talked a little bit about this
11 earlier. And if you could read us Subsection H-1 on the
12 record keeping.

13 A. Sure. I -- just editorially I thought G was
14 kind of nice in that it was a respectable patrol.

15 Q. Exactly.

16 A. You know. That was the way you should conduct
17 your business.

18 Q. Yep.

19 A. Sorry. Record keeping. Which one did you want?

20 Q. Let's start with number one.

21 A. "Number one: Record Keeping. A record of line
22 patrol reports shall be retained for a period of five
23 years. The storage should be made by transcribing the
24 actual field report into a database management program.
25 The Transmission and Distribution Department will
26 coordinate changes to the existing CONDOR Program and

1 will distribute them to the Regions as required. The
2 Regions may use other software they feel will better suit
3 their needs as long as the reporting requirements are
4 met.

5 A follow-up system shall be used to ensure that
6 all necessary repairs are completed and documented. This
7 includes any corrective work that is planned or underway
8 but not complete.

9 The patrol/maintenance database program shall
10 contain all the necessary items to create reports,
11 schedule patrols and maintenance, generate follow-ups,
12 and provide an electronic library record of all patrols
13 and maintenance performed. This program will aid the
14 Regions in administering the transmission patrolling
15 program in an efficient and cost effective manner."

16 Q. Now, we talked earlier about the CONDOR Program
17 and you don't really remember what the CONDOR Program is.
18 But is it safe to say here in 1987 PG&E has a
19 recordkeeping program by which the inspectors, the
20 troubleshooters who were doing the patrols are recording their
21 patrols or inspections on paper forms that are then being
22 transcribed into a computer data management system?

23 A. I would interpret these words to say that. I
24 don't -- at that time there was no such thing as, you
25 know, hand-held computers or iPods or stuff like that.
26 So that's what would have happened. Paperwork

1 transcribed. They may have had staff to do the
2 transcription. I don't know that they had the time do
3 that, but somebody did.

4 Q. And in 1987 PG&E was already looking forward and
5 planning for an electronic library to have a record of
6 all of the patrols and inspections. Is that correct? Am
7 I reading that correct?

8 A. You're reading that correct.

9 Q. Would it surprise you that until 2017 PG&E was
10 still using paper which was then transcribed into a
11 system?

12 A. You know, to tell you the truth, it would.
13 There was a big effort to put computers in gas
14 servicemen's vehicles and certainly distribution
15 troubleshooters. So I am surprised.

16 Q. All right. So let's move on to number two
17 there, Subsection 2 of Subsection H which talks about the
18 forms. Can you read that to us.

19 A. Okay. "Two: There are two report forms that
20 can be used in conjunction with this bulletin. One is
21 form 62-4768 and the other can be generated by use of a
22 database management program. The Region may use
23 whichever form is more conducive to their patrol effort.
24 A sample of form 62-4768 is attached. Completed patrol
25 sheets are returned for reentry into the program system
26 for maintenance scheduling.

1 The patrol report should be entered using the
2 appropriate code found be in the attached code sheet.
3 Multiple codes may be used if required with the codes
4 separated by a comma. When completing the patrol report
5 form, the following conventions should be used: A,
6 usually only the three digit code is required to specify
7 the condition of the tower or structure; B, if the report
8 concerns an insulator string with a broken or damaged
9 bells, specify how many bells are damaged out of the
10 total number of bells in the string."

11 Q. Let me interrupt you right there. This is a
12 long one. So I will kind of annotate this.

13 What is bells? What are we talking about bells?

14 A. I think that's vernacular for individual
15 insulators. The string of insulators is a connection of
16 five, 10, or 15 of these individual insulators,
17 individual bells that connect together and make a string
18 of insulators. One end is connected to the energized
19 portion of the line and the other end is connected to the
20 tower or to the pole.

21 Q. All right. Go ahead.

22 A. Okay. "If the report concerns an insulator
23 string with broken or damaged bells, specify how many
24 bells are damaged out of the total number of bells in the
25 string and which bells are broken. Reference is the line
26 end."

1 That would be the so-called hot end.

2 "This information should be entered in the
3 'Patrol Comments' section of the patrol sheet. Examples:
4 3:10 1, 2, 3. This means that 3 out of the 10 bells are
5 broken and that they are in the 1st, 2nd, and 3rd bells
6 in the string."

7 Keep going?

8 Q. Keep going.

9 A. Okay. "If the report concerns a specific phase
10 such as a damaged conductor, specify which phase by
11 indicating top, middle, bottom, left, center or right.
12 Reference is determined by facing the line in the
13 direction of ascending structure numbers.

14 If damage to bundled conductor or hardwire is
15 being reported, specify the appropriate subconductor.
16 Use the same reference as in c.

17 If word descriptions are required, legibly print
18 it in ink or soft lead in the 'Patrol Comments' section
19 of the patrol sheet. For example, list the type of sign
20 missing under Code 305.

21 Each structure on the patrol must have an entry
22 in the 'Problems Found' section of the patrol sheet. If
23 there are no problems, enter 900. If the structure is
24 climbed during a climbing patrol, enter 910.

25 If a problem is between towers such as spacers
26 or conductors, it should be reported relative to the

1 lower numbered tower. All directions and positions
2 should be reported as if looking from the lower numbered
3 to the higher numbered tower or structure."

4 Q. So it looks like in this section to me that you
5 are giving the troublemen specific instructions that if
6 you find a problem whether it's insulators or something
7 else, you're going to -- you're to give a description
8 that is detailed enough that somebody is going to be able
9 to find the problem and fix it. Is that correct?

10 A. I would agree with that.

11 Q. All right. I'm not going to spend any time on
12 the next section. We will skip ahead to the last page.
13 And this Subsection B talks about compliance review.

14 A. Okay.

15 Q. If you could read that for us.

16 A. Sure. "The Transmission and Distribution
17 Department will conduct periodic reviews to ensure that
18 patrols are being correctly carried out, all required
19 repairs are completed, and the patrols are properly
20 documented. The intent of these reviews will be to
21 address problems each Region may be encountering. The
22 Transmission and Distribution Department will also assist
23 the Region in identifying and implementing the necessary
24 actions to ensure the success of the line patrol
25 program."

26 Q. So what does this paragraph mean?

1 A. Well, it says that the Transmission and
2 Distribution Department is going to look. Somebody needs
3 to go back out and see whether the patrols were conducted
4 or the repairs made.

5 I believe it has been written with, my term,
6 softer language to suggest a collaborative effort between
7 the Regions and the corporate headquarters. You know,
8 the Regions were their own organizations. And so it was
9 a bit of a teamwork approach to make sure the two parties
10 worked together as opposed to writing something that said
11 "We'll be there to audit you. And if we find out about a
12 problem, you're going to be in big trouble." That was
13 not the style of the approach that we had.

14 Q. But basically telling them "Hey, we're going to
15 be checking your work and so be aware of that"?

16 A. Absolutely.

17 Q. All right. "C: Procedure Development Process."
18 If you can read that for us and explain it.

19 A. Yes. "This bulletin has been revised in
20 collaboration with the Regional Transmission/Substation
21 Superintendent and Transmission Lines Supervisors. It
22 has also been reviewed and modified to reflect practices
23 employed by other west coast utilities subject to special
24 circumstances that may exist on our system."

25 Q. What I wanted to talk about is when you're
26 talking about other west coast utilities, what do you

1 mean by that?

2 A. Well, the other west coast utilities in
3 California includes San Diego Gas & Electric, Los Angeles
4 Department of Water and Power, Southern California
5 Edison, which is the southern area. As you go north --
6 gosh, I don't know what some of these are all now. But
7 there was PacifiCorp. There was other entities in Oregon
8 and Washington including Bonneville Power Administration.

9 So all of these were west coast, if you will,
10 utilities who maintained and operated transmission lines
11 and distribution lines too for that matter.

12 Q. So your knowledge back in the '80s at least at
13 this time was PG&E kept in contact and communication with
14 these other utilities to talk about policies, procedures,
15 problems?

16 A. In general, yes. There were utility groups that
17 got together finding out what was -- you know, was there
18 new information, new material. One of the examples that
19 I've used is we talked about the insulator bells. Those
20 are these heavy porcelain things that once you get a
21 string of about five of them, most of us couldn't pick it
22 up. Very heavy.

23 And the innovation was to utilize polymer
24 insulators. So it's made out of kind of a fancy plastic.
25 Not really plastic but mobile plastic thing that slid
26 over a fiberglass rod and probably could carry an entire

1 equivalent of insulator strings.

2 So people were beginning to try polymers. And
3 I'm sure there was a great deal of discussion between
4 "Are you guys trying them?"

5 In the early days they didn't always work out
6 great. You know, it's the implementation of new stuff.

7 So "Are you guys seeing this with these kind?"
8 or "Are you buying from Vendor A or Vendor B?"

9 I don't know that it was a formalized process as
10 much as it was just people got together and they talked
11 about things.

12 Q. Okay. Now, the final paragraph is "Policy
13 Implementation Issues." And we discussed this a little
14 bit earlier. So will you read it.

15 A. Yes. "This procedure will be updated as changes
16 occur which would affect its content, but not later than
17 November 1st of 1990." And that is my signature.

18 Q. So that's November 1st, 1990. Now we're back to
19 that three years. You can, you know, edit this before,
20 but it has to be revisited at least by within three
21 years?

22 A. That is right.

23 Q. All right. And then that is your signature down
24 there Rod J. Maslowski?

25 A. That is me.

26 Q. And then on here you cced somebody. It looks

1 like Damianakes.

2 A. Well, it's -- actually, his name is Chris
3 Damianakes. So the "C" must be his first and middle
4 initials. And so he would have been the overall author
5 of the document.

6 Q. Okay. Who was Chris Damianakes?

7 A. Chris Damianakes was an engineer that worked for
8 me. I think it would be incorrect to suggest that he
9 wrote this by himself. Matter of fact, the suggestion is
10 that there was collaboration with other -- the regional
11 people. There would have been collaboration with other
12 more line worker-type people within my organization.

13 Christopher was an engineer like me. He came
14 from school. Probably didn't construct transmission
15 lines or construct wires. Unfortunately, Mr. Damianakes
16 passed away.

17 Q. Do you know when Mr. Damianakes passed away?

18 A. I don't know the date. I believe it was a
19 skiing accident. And that's an unfortunate situation.

20 Q. Yep. So let's move on to some of the
21 attachments here. "Appendix A: Conditions To Be Noted
22 When Patrolling Lines." And this talks about specific
23 things for the troubleshooters to be looking for; right?

24 A. That's correct.

25 Q. And I want to go down -- talk to me about this
26 Section B which talks about line hardware and insulators.

1 A. Okay. Shall I read it?

2 Q. Go ahead.

3 A. Oh, sure. "Line Hardware: One: Insulators
4 broken, chipped, or otherwise damaged. Patrolmen shall
5 report the number of insulators in the string and the
6 number damaged. In addition, the location within the
7 string should be specified as broken or chipped insulator
8 near the line end are critical.

9 Insulators that are out of plumb."

10 That is number two.

11 "Number Three: Insulators dirty.

12 Number Four: Worn hardware and connectors.

13 Number Five: Shed deterioration or other damage
14 to non-ceramic insulators."

15 And those are the new ones I was talking about.

16 Q. Okay. So this section is specifically dealing
17 with insulator and insulator hardware; correct?

18 Subsection B?

19 A. Yes.

20 Q. Okay. What does it mean to say an insulator is
21 out of plumb?

22 A. The insulators hang generally vertically unless
23 you're turning a corner where they may have an angle to
24 them. So I guess if I was looking at it, if all the
25 insulator strings from the three phases were hanging
26 perpendicular to the ground, that's right. If one of

1 them for some reason was out of line with the others, I
2 would consider that unusual. I don't know what might
3 cause that, but that would be a suggestion there's
4 something wrong.

5 So out of -- plumb means it was hanging in a
6 direction it should be. Out of plumb is, for some
7 reason, it's not looking like the other insulators.

8 Q. So then we go on to number four. And it says
9 "Worn hardware and connectors."

10 A. Okay.

11 Q. Now, the way I would read this is this is
12 talking about hardware and connectors associated with the
13 insulators. Is that correct?

14 A. Yes, unless there was that jumper situation
15 which are unique conditions for towers. But for the most
16 part, I would say it's the hardware connected with that
17 insulator.

18 Q. And what kind of hardware and connectors are
19 associated with insulators?

20 A. Well, I'm not a hardware expert, but there's
21 something that connects the insulator string to the
22 tower.

23 Q. Right.

24 A. That's the cold un-voltaged grounded end. And
25 at the other end of it there's a connector that clamps
26 the wire or somewhere secures the wire to the hot end of

1 the insulator string. So I think it's probably
2 suggesting those.

3 Q. Okay. So are you familiar with the term
4 cold-end attachments?

5 A. I think so, yes.

6 Q. Okay.

7 A. It's not about the temperature. It's about the
8 voltage.

9 Q. Right. So is it reasonable to believe that
10 the -- that this worn hardware and connectors in number
11 four would apply to the cold-end attachment hardware as
12 well as the hot-end attachment hardware?

13 A. I would think that it would be.

14 Q. All right. Let's move down to C. And we're
15 going to need to take a break here in a minute. Let's
16 get you finished up here real quick.

17 A. Sure.

18 Q. Under "Structures."

19 A. Okay.

20 Q. I want to go over the top couple of these.

21 A. All right. "Structures: One, bent, broken, or
22 missing members. Two, out of plumb or twisted. Three,
23 footings needing repair or covered by dirt or water.

24 Q. So let's stop it right there.

25 A. All right.

26 Q. Why would bent, broken, or missing members be a

1 problem on a tower structure?

2 A. I believe that that would potentially weaken the
3 structure.

4 Q. And how about out of plumb or twisted?

5 A. That would suggest something is going on with
6 that tower whether it's earth movement or there's
7 something else that is putting undue stress on it and the
8 tower is beginning to move.

9 Q. And why footings needing repair or covered by
10 dirt or water? Specifically I want to talk about
11 footings needing repair. It doesn't need any
12 explanation. But why would it be important that the
13 footings of the tower be covered by dirt or water?

14 A. Well, the footing is the -- generally speaking
15 the concrete footing that is holding this thing in the
16 ground. From there it's steel going up to the top. And
17 if it's under dirt or water, then you have the
18 possibility of corrosion at that connection point.

19 If it's steel, galvanized steel, to the best of
20 my knowledge, is not intended to rust unless you had a
21 condition where it was possibly under dirt or under
22 water.

23 Q. All right. Skip through this real quick. I
24 don't think there's anything we really need to talk
25 about.

26 We get back now where there's a line patrol

1 report. So this is what we're talking about in the
2 reporting section for what the towermen should fill out.

3 So this is the form --

4 A. Oh, I'm sorry. Excuse me.

5 Q. Was this the form that was talked about earlier,
6 the document about whether troublemen should fill out the
7 document if there's any findings?

8 A. Yes, it is.

9 Q. All right. Now, get to the last thing here
10 which is "Transmission Line Patrol Report Damage Codes."
11 You see this?

12 A. Yes.

13 Q. And what is this form that we're looking at?

14 A. I believe this is a way to identify problems
15 that are found with a code probably allowing for, you
16 know, sorting or accumulation of information by code. If
17 there was multiple problems of the same code, that would
18 suggest, you know, a systemic problem of some sort.

19 Q. So back there when we were talking about the
20 requirements or the reporting requirements for the
21 troublemen that talked about three digit codes to
22 indicate the problem, this defines all three digit codes;
23 is that correct?

24 A. That's correct.

25 Q. I guess I'm just looking for anything that may
26 need to be defined. Kind of -- we already talked about

1 what the bells are.

2 Do you know what this OHGW term that is repeated
3 throughout here stands for?

4 A. I think OHGW stands for overhead ground wire.
5 And I believe that also would be like a lightening shield
6 wire. Towers that have exposure to lightening and
7 lightening storms will have a wire that is on it above
8 the conductors, a separate location. And usually there's
9 two. If there's two circuits, there's two shield wires
10 or overhead ground wires.

11 The idea is that the lightening strikes the
12 shield wire and not hit the conductors. That wire is
13 grounded so the energy from the lightening will dissipate
14 into the ground.

15 Q. All right. Other than that I think we've got
16 all of it. And the next thing we've got -- I'll just ask
17 you about a couple of exhibits that we have. We have 158
18 up here on the big board for you and we also have the
19 damage code section.

20 And I was going to ask if you could indicate or
21 point out some of the damage codes on the tower itself.

22 A. Well, maybe I can just kind of talk about what I
23 see here.

24 Q. Yep, absolutely.

25 A. So this is the steel structure. The footings
26 would be down here somewhere in the part that you could

1 see. These individual crosspieces would be the members
2 that they were talking about if that was bent or twisted.

3 Then you see overhead wires coming in. It's a
4 little hard to see where all of them are. But it looks
5 to me like the line comes in these three or goes out. I
6 can't tell which direction is which.

7 If some of these phases are being shifted over
8 to the other side of the tower, they're being transposed
9 or rolled.

10 These are insulator strings. This is where the
11 wire is connected to the hot end. And this is where the
12 insulator string is connected to the cold end of the
13 tower end.

14 This does not look to me like it has the
15 overhead ground wire, the lightening shield wire. Those
16 would have been up on top above all of this stuff.

17 You know, it's really hard to tell. I see some
18 little black dots here. I don't know if those would have
19 been some of the connectors you were asking about earlier
20 or not.

21 MR. NOEL: Okay. I think we've been going now
22 for almost two hours; an hour and 45 minutes. It's time
23 for a break. I think we've done enough. We have to go
24 through the final slide which is another transposition
25 tower.

26 Before we finish though, do any of

1 you members --

2 MR. FOGG: Mark, I have questions.

3 MR. NOEL: Go ahead.

4 **EXAMINATION**

5 BY MR. FOGG:

6 Q. Mr. Maslowski, I don't mean to walk through the
7 whole memorandum again, but I want to jump back to a few
8 points.

9 Will you return to the first page of the
10 bulletin, please. Not the letter but the bulletin
11 itself.

12 There's a paragraph that mentions something
13 about training courses. Who would have determined the
14 content of those courses?

15 A. I don't remember the training specifically. So
16 I would believe that it was probably the local
17 transmission people and the transmission people from my
18 portion got together. It's possible -- it would be
19 efficient -- if there was a training program that could
20 be utilized by all of them. So it's even possible that
21 the regions got together and identified training. But
22 I'm sorry. I don't remember the details.

23 Q. Okay. I want to jump forward now to page 4 of
24 the bulletin, letter C, the classes of lines.

25 A. Yes.

26 Q. Was the risk that a line could start a fire

1 considered in classifying lines in this bulletin?

2 A. It was not. In my recollection, the lines
3 starting a fire was not an occurrence that was happening
4 back in 1987.

5 Q. Do you know if PG&E tracked the number of fires
6 its lines started back in the '80s?

7 A. They tracked almost every outage situation that
8 occurred. My recollection is that there were few, if
9 any, fires started by lines.

10 Q. Okay. And then down on letter D still on
11 page 4, the frequency of patrols that you discussed with
12 Mr. Noel. Who decided who set the frequency of those
13 patrols? Who decided, let's say, that there be a ground
14 patrol every year, for example?

15 A. I don't know for sure. You know, we don't know
16 what this document changed. So it could be that we
17 changed a reporting requirement. The frequency never did
18 change. That could have been set by predecessors or
19 perhaps it was set by this team of people. I don't
20 recall.

21 If anything, it would have been in corroboration
22 between the line experts in my group and probably with
23 input from the local regions as well.

24 Q. And now quick question on budgets. Did you have
25 a role in setting budgets in your work with PG&E?

26 A. I have had a lot of involvement about budges

1 over my time with PG&E.

2 Q. Can you tell us how the budgets for transmission
3 troublemen would have been set.

4 A. Generally speaking the transmission troublemen
5 would have been a small compound of an overall
6 transmission expense budget. These -- there's sort of
7 two pots of money. There's capital money. Capital money
8 means when you're building lines. And that's money, if
9 I'm not mistaken, that's borrowed. And it's high level
10 expenses; hundreds of thousands or millions.

11 You also have a work force that is employed on a
12 day-to-day basis to patrol, maintain, and operate the
13 line. That is expensive. So there would have been a
14 transmission line expense item in a regional budget. And
15 the transmission troublemen would have been included in
16 that.

17 Q. Who would have been setting those budgets within
18 PG&E?

19 A. I would believe that the regional vice
20 presidents would set a proposed budget. There has to be
21 some sort of overview corporately as to what those
22 budgets were. I may have been asked for input on it, but
23 I don't think I had any authority over a budget.

24 MR. FOGG: Okay. Thank you, Mr. Maslowski.
25 Those are my questions.

26 MR. NOEL: Just as a follow-up to that.

1 **CONTINUED EXAMINATION**

2 BY MR. NOEL:

3 Q. In your long term with PG&E did you at least
4 budget-wise see any major shifts in philosophy within the
5 company?

6 A. It would be disingenuous to say there wasn't
7 budget pressure at PG&E. There always was. If I know
8 the process, the -- there were rate cases that funded the
9 utilities. The rate cases then set the standard for a
10 budget, but you couldn't budge more than the rate case
11 allowed you to collect.

12 My general recollection is that budgets for the
13 distribution -- or excuse me. The rate cases for
14 distribution systems were filed with the Public Utilities
15 Commission. That was -- I might be incorrect, but I'll
16 say I don't think the utilities ever got what they
17 requested from the CPUC. That was always a challenge
18 back and forth What was the right level of funding.

19 The transmission budgets were set by federal
20 rate cases or FERC. And that would again be a
21 combination of expense money and capital money. And I
22 believe the FERC was much more likely to agree with what
23 the utilities proposed than the CPUC.

24 Q. In terms of financial policy itself, would there
25 be -- the philosophy of the company, did you see or
26 recognize any major shifts during your long career?

1 A. You know, the one thing that struck me was PG&E
2 was always a company that they were careful about capital
3 investments on lines. And it could be both T&D. I'm
4 thinking of transmission now. Because there was always
5 the opportunity to adjust generation if there was a
6 transmission line issue, not always but that would be a
7 potential solution. You could either ramp up or ramp
8 down generation. The alternative was to build a new
9 line.

10 So PG&E had a lot of operational procedures to
11 utilize this generation to keep the system reliable.

12 There are -- this became a conflict when the
13 California ISO took over the system. And they were much
14 less interested in operating solutions and they wanted
15 what they called wire solutions. So there was a big
16 shift there where PG&E was expected to spend more money
17 building new lines.

18 The reason behind that is when PG&E ramped the
19 generation, they were usually ramping their generation.
20 And there was no obvious immediate cost. When the ISO
21 ramped generation, somebody had to pay for it. And so it
22 was pushing back.

23 I think they found that the other utilities were
24 relying less on operating generation solutions than they
25 were on wire solutions.

26 Q. I guess I'm just going to a more general

1 philosophy of the company. And kind of to pinpoint it
2 one of the things that we have heard is that at one time
3 PG&E was a utility that was run by engineers and then at
4 some point it became a utility that was run by
5 accountants and that the philosophy shifted from being a
6 utility to being a profit.

7 You were with them for a long time in a
8 management role. Did you see that type of shift?

9 A. Well, I certainly saw the shift in the
10 leadership. It was a technical company run by technical
11 engineers. And the transmission occurred more to this
12 type of people or possibly even attorneys. So there was
13 that approach.

14 There was a whole -- there was -- I think we
15 went through a time where we didn't make money on the
16 facility. So could you run cable systems or come up with
17 another idea? So things like that came about.

18 MR. NOEL: Okay. Any further questions? Let's
19 see. We have a couple of questions from the jurors.

20 [Conferring off the record.]

21 MR. NOEL: Got one right here.

22 BY MR. NOEL:

23 Q. Okay. Mr. Maslowski, the grand jurors have some
24 questions for you they have written down. I have them.
25 We've gone over them. And so I am going to read those
26 questions to you now.

1 A. Okay.

2 Q. "During your time during -- during your career
3 with PG&E, do you believe that the linemen and troublemen
4 had plenty of training on the towers and transmission
5 lines?"

6 A. I believe that they did.

7 Q. "Did you personally train or hold training
8 seminars for linemen or troublemen?"

9 A. I did not.

10 Q. "When your 1987 policy changed bulletin number
11 85 uses the phrase on page 2 of "Routine patrolling and
12 inspection should be scheduled in accordance with
13 available budgets and manpower," what does this mean
14 practically?"

15 A. Can you give me the location reference again,
16 please.

17 Q. Yep. It says on page 2 "Routine patrolling."
18 I'm trying to find it. Oh, it says subparagraph number
19 four in the last sentence. So it's right here
20 (indicating).

21 "Correction of items affecting the longer term
22 liability of the line should be scheduled in accordance
23 with available budgets and manpower."

24 A. Okay. Well, I believe this is suggesting that
25 there's something at that location that isn't of
26 immediate concern. It's not going to have the line fall

1 down or break or something like that immediately.

2 For example, let's say five insulators out of a
3 ten bell string were shot and broken. I think that's
4 something that would need to be looked at immediately.

5 Let's say there was one. That's not going to
6 fail the line right away. And so that could be put into
7 the workload of the team and with what money they had to
8 take care of the lines.

9 There would be other examples. You know.

10 Q. "In the creation of these policies and
11 procedures was there ever any consideration of the actual
12 operational age of the overall equipment being
13 inspected?"

14 A. Not that I'm aware of.

15 Q. "Was there, in your experience, ever any effort
16 by the PG&E scientific or metallurgy departments to
17 determine a feasible affective age of fundamental
18 structural elements in the transmission line and their
19 substructure?"

20 A. Not that I'm aware of. That doesn't mean it
21 couldn't have been done. There was a scientific team
22 called the Department of Engineering Research. I believe
23 DER headquartered first in Emeryville and then in
24 San Ramon.

25 So often if there were -- I'm trying to think of
26 the kinds of things that might have failed and were

1 typically given to DER to make an analysis of.

2 Q. "And did you ever have to deal with or review
3 any of those reports?"

4 A. I may have been aware of the reports. That's
5 the kind of thing that the electrical engineering
6 department had. You know. The physical design experts
7 there, I presume that would have been probably with them
8 and the DER.

9 Q. "Was there any consideration given to establish
10 a more frequent patrol regimen for line structures
11 exceeding certain ages? For instance, 25 years?
12 100 years?"

13 A. No, not that I'm aware of.

14 Q. "Was there ever any effort of which you were
15 aware to scientifically or technically establish a useful
16 line span of metal towers and equipment?"

17 A. No.

18 MR. NOEL: Anything else? Seeing no hands and a
19 lot of blank stares. We have been going for a little
20 over two hours now. That is all that we have of this
21 witness.

22 Would you please admonish Mr. Maslowski.

23 GRAND JURY FOREPERSON: Mr. Maslowski, you are
24 admonished not to discuss or disclose at any time outside
25 of this jury room questions that have been asked of you
26 or your answers until authorized by this grand jury or

1 the Court. A violation of these instructions on your
2 part may be the basis for a charge against you of
3 contempt of court. This does not preclude you from
4 discussing your legal rights with your own attorney.

5 Mr. Maslowski, what I have just said is a
6 warning not to discuss this case with anyone except the
7 Court, your lawyer, or the district attorney.

8 Do you have any questions?

9 THE WITNESS: I don't.

10 GRAND JURY FOREPERSON: Okay. Thank you so much
11 for your time today.

12 THE WITNESS: Thank you.

13
14 [DISCUSSION OMITTED.]

15
16 [Recess taken from
17 10:40 until 11:02 a.m.]

18
19 [DISCUSSION OMITTED.]

20
21 [Recess taken from
22 11:03 until 11:20 a.m.]

23 GRAND JURY FOREPERSON: All members of the grand
24 jury are present.

25 MR. NOEL: Mr. Sergeant-at-Arms, would you like
26 to -- (WITNESS #7) should be in the second attorney

1 client room out there. And Mr. Fogg hasn't come back in.
2 You may want to see if he's sitting out there still and
3 tell him to come back in.

4 [Witness enters the courtroom.]

5 GRAND JURY FOREPERSON: (WITNESS #7), before you
6 have a seat, you need to be sworn in. Please raise your
7 right hand.

8 (WITNESS #7), do you solemnly swear that the
9 evidence you shall give in this matter pending before the
10 grand jury shall be the truth, the whole truth, and
11 nothing but the truth so help you God?

12 THE WITNESS: I do.

13 GRAND JURY FOREPERSON: Thank you. Have a seat,
14 please.

15 **EXAMINATION**

16 BY MR. NOEL:

17 Q. (WITNESS #7), for the record could you please
18 state your full name spelling your last name.

19 A. (WITNESS #7), [Redacted spelling.]

20 Q. (WITNESS #7), are you employed?

21 A. Yes.

22 Q. By whom?

23 A. PG&E.

24 Q. In what capacity?

25 A. Hydro operator at Rock Creek.

26 Q. How long have you been with PG&E?

1 A. About two and a half years.

2 Q. What is a hydro operator?

3 A. We generate electricity with hydroelectric
4 generators, manage the water in the Feather River Canyon.

5 Q. What is Rock Creek?

6 A. It's Rock Creek Switching Center.

7 Q. What is -- describe for us what that is.

8 A. It's like the hub of the lower Feather River.
9 We control Rock Creek units, Poe units, Cresta units.

10 Q. And when you say "units," what are you talking
11 about?

12 A. Generators, hydro generators.

13 Q. Generators?

14 A. Yeah.

15 Q. So the powerhouses where they're creating the
16 hydroelectric power?

17 A. Correct.

18 Q. All right. And what do you do there at the
19 center?

20 A. I'm an operator. I deal with alarms, stop and
21 start units.

22 Q. Were you on duty at the Rock Creek Power -- or
23 the Rock Creek Switching Center I guess it is; right?

24 A. Correct.

25 Q. -- on the morning of November 8, 2015, at
26 approximately 6:25 a.m.?

1 A. Yes, I was.

2 Q. Why were you on duty so early?

3 A. I just was -- I had just done the night shift.
4 I'd been there since 6:00 p.m. the night before. We work
5 12-hour shifts.

6 Q. Okay. So you were right at the end of your
7 shift?

8 A. Correct.

9 Q. Now, at some point around 6:20 in the morning
10 did something unusual happen?

11 A. Yes. I received a call on the radio to report a
12 fire.

13 Q. Do you remember who called you to report the
14 fire?

15 A. Yes. It was my generation supervisor at that
16 time (WITNESS #16).

17 Q. Do you know how to spell (WITNESS #16)?

18 A. (WITNESS #16). That's the best I can do.

19 Q. You said that Mr. (WITNESS #16) called you on
20 the radio?

21 A. Correct.

22 Q. What radio?

23 A. We have radios to keep in communication with
24 each other throughout the canyon.

25 Q. So what action did you take based on that?

26 A. I immediately dialed 9-1-1. I was transferred

1 to Cal Fire and reported the fire location.

2 Q. All right. Now, you have in front of you a
3 document marked as Exhibit 132-A.

4 A. Yes.

5 Q. And I'm spooling up to play a recording that's
6 marked as 132. And I will play this for you and then
7 we'll go back and talk about it. But first listen to it
8 and tell me -- well, I'll ask you some questions about it
9 at the end.

10 [Exhibit 132 played in open court.]

11 BY MR. NOEL:

12 Q. All right. We have listened to 132 now. Do you
13 recognize the voice of the 9-1-1 caller on the recording?

14 A. Yeah. I mean, it was a year ago.

15 Q. Okay.

16 A. That is me on the phone.

17 Q. So that's you talking to the dispatcher?

18 A. That is correct.

19 Q. All right. And did you review the recording
20 against the transcript?

21 A. Yes.

22 Q. And does the transcript fairly and accurately
23 depict what's on the recording?

24 A. Yes, except there's one error here. It says on
25 page -- what is this? Page 2. It says "All I see is
26 like right around one of the tours." That should be a

1 tower. So it says 20 feet from the base of the tower
2 something.

3 Q. Okay.

4 A. A typo.

5 Q. All right. So let's walk through the
6 transcript. They said you initially called 9-1-1 and you
7 were put through to Cal Fire; correct?

8 A. Correct.

9 Q. Any estimation of how long it was between when
10 you received information of the fire and when you called
11 9-1-1?

12 A. A couple minutes maybe.

13 Q. All right. So you start going through the
14 information. And then we start hearing somebody in the
15 background. And I think at some point you referred to
16 him as (EMPLOYEE #2)?

17 A. (EMPLOYEE #2), yes. Because I was right in the
18 middle of shift change.

19 Q. Who is (EMPLOYEE #2)?

20 A. He's another operator at Rock Creek.

21 Q. Is he your relief?

22 A. Correct.

23 Q. And we also heard you refer to somebody named
24 (WITNESS #16). And then we hear Mr. (EMPLOYEE #2)
25 talking to somebody on the radio in the background and
26 provide information.

1 A. Right. Because as you heard, like, they wanted
2 to know the size of the fire. (WITNESS #16) had relayed
3 that initially. So (EMPLOYEE #2) was standing by the
4 radio and said "Hey, (EMPLOYEE #2), you know, call and
5 see if you can estimate the size of the fire." So he
6 contacted (WITNESS #16) on the radio and then you heard
7 (WITNESS #16) estimate the size 100 by 100.

8 Q. So that voice that we're hearing on the radio in
9 the background is (WITNESS #16)?

10 A. That is correct.

11 MR. NOEL: I don't think I have any more
12 questions.

13 Do the jurors have any questions?

14 Mr. Fogg, anything?

15 MR. NOEL: All right. I think that's all we
16 have for you today.

17 THE WITNESS: Okay.

18 MR. NOEL: And Madam Foreperson is going to read
19 you an admonishment before we let you go.

20 GRAND JURY FOREPERSON: (WITNESS #7), you are
21 admonished not to discuss or disclose at any time outside
22 of this jury room the questions that have been asked of
23 you or your answers until authorized by the grand jury or
24 the Court. A violation of these instructions on your
25 part may be the basis for a charge against you of
26 contempt of court. This does not preclude you from

1 discussing your legal rights with your own attorney.

2 (WITNESS #7), what I have just said is a warning
3 not to discuss this case with anyone except the Court,
4 your lawyer, or the district attorney.

5 Do you have any questions?

6 THE WITNESS: No.

7 GRAND JURY FOREPERSON: Okay. Thank you for
8 your time.

9 THE WITNESS: Thanks.

10
11 [DISCUSSION OMITTED.]
12

13 [Whereupon the luncheon recess is
14 taken from 11:34 a.m. to 1:20 p.m.]

15 --oOo--
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1 OROVILLE, BUTTE COUNTY, CALIFORNIA

2 AFTERNOON SESSION

3 (Confidential Special Grand Jury Hearing Proceedings)

4
5 [ROLLCALL OMITTED.]

6
7 MR. NOEL: Are we ready to proceed with the next
8 witness?

9 GRAND JURY FOREPERSON: We are ready.

10 MR. NOEL: (WITNESS #9). She's in the third
11 room.

12 [Witness enters the courtroom.]

13 GRAND JURY FOREPERSON: Before you have a seat,
14 I need to swear you in. Please raise your right hand.

15 Do you solely swear that the evidence you shall
16 give in this matter pending before the grand jury shall
17 be the truth, the whole truth, and nothing but the truth
18 so help you God?

19 THE WITNESS: Yes.

20 GRAND JURY FOREPERSON: Thank you. Have a seat,
21 please.

22 **EXAMINATION**

23 BY MR. NOEL:

24 Q. For the record, can you state your full name
25 spelling your last.

26 A. (WITNESS #9), [Redacted spelling].

1 Q. (WITNESS #9), by whom are you employed?
2 A. Pacific Gas & Electric Company.
3 Q. In what capacity?
4 A. What do you mean? Which --
5 Q. What's your job?
6 A. I'm a compliance supervisor.
7 Q. How long have you been with PG&E?
8 A. Over 35 years.
9 Q. What is a compliance supervisor?
10 A. As a compliance supervisor I manage all the
11 compliance work for maintenance patrols and inspections.
12 And I have a team of seven people.
13 Q. What do you mean by compliance?
14 A. Compliance of maintenance tags, maintenance
15 visual tags for regular inspections and corrective work.
16 Q. And how long have you been a compliance
17 supervisor?
18 A. I've only been a compliance supervisor since
19 September of this year. Prior to that I was asset
20 strategist, slash, asset maintenance planner.
21 Q. What is an asset strategist?
22 A. An asset strategist works for the headquarters
23 throughout the transmission line system on all their
24 maintenance, their yearly, quarterly, monthly, whatever
25 schedule it is from chosen sections for the circuits and
26 transmission line.

1 Q. When you use the term "headquarters," can you
2 explain to us what that means.

3 A. So the headquarters and transmission line -- we
4 have 11. It's system-wide from -- you break it down to
5 Bakersfield and all in between. So there's 11
6 maintenance headquarters.

7 Q. So have you heard the term Table Mountain
8 Center?

9 A. Table Mountain Headquarters, yes.

10 Q. Okay. That's what I was going to ask you. Is
11 Table Mountain Headquarters and Table Mountain Center the
12 same thing?

13 A. Yes. I've never heard it called center but,
14 yes.

15 Q. And you said that you also -- the other term for
16 your job is asset maintenance strategist?

17 A. Planner. So up until 2013 our classification
18 was asset strategist. HR made a change calling us now
19 asset maintenance planners. Same job, different name.

20 Q. All right. How long were you an asset
21 strategist or asset maintenance planner?

22 A. For transmission line I came in about March of
23 2012.

24 Q. And I'm sorry. Where physically is your office
25 located?

26 A. In Rocklin, California.

1 Q. So as an asset strategist or an asset
2 maintenance planner, did you deal with all of the 11
3 headquarters or a subset thereof?

4 A. No. My headquarters that were assigned to me
5 were Eureka, Table Mountain, and Sacramento. And I
6 assisted in other areas as needed.

7 Q. All right. So you did the maintenance planning
8 for those three headquarters?

9 A. Yes.

10 Q. All right. Describe what goes into the
11 maintenance planning for the headquarters?

12 A. Well, the headquarters themselves plan their
13 schedules. What I do is I call out the orders for their
14 yearly patrols and inspections.

15 Q. What do you mean you call out the orders?

16 A. Through SAP. Our program in SAP. They're
17 called PM orders. It's what the guys charge to and it's
18 based on each inspection. Patrol or inspection.

19 Q. All right. Where do you get the information to
20 build those?

21 A. From SAP.

22 Q. Okay. Now, in front of you you have a stack of
23 documents. And we're going to go through them one at a
24 time. The first one should be Exhibit Number 614.

25 A. Yes.

26 Q. Do you see Exhibit 614?

1 A. I do.

2 Q. Do you recognize what is 614?

3 A. It's a calendar that the asset planners/asset
4 strategists put together to give to headquarters. And
5 this is a proposed one which means the orders are
6 probably called and we sent it to headquarters for them
7 to verify the schedule looks good to them.

8 Q. Okay. So we're looking on the big board at the
9 first page of 614. At the top it says "2013 Proposed
10 Patrol Insperions."

11 A. That's a typo.

12 Q. "For Table Mountain." And Table Mountain would
13 indicate the headquarters? Table Mountain headquarters?

14 A. Yes.

15 Q. And this is a four-page document?

16 A. Yes.

17 Q. And then we're going to focus in on page 3 which
18 would appear to show July and August?

19 A. Yep.

20 Q. Is that correct?

21 Okay. Now, explain to us how to read this
22 calendar.

23 A. On page 3?

24 Q. Yeah, or just in general this 2013 calendar.

25 A. Well, in July it shows there's air patrols and
26 detailed inspections that are due in the month of July.

1 Q. Okay.

2 A. It says the headquarters, the circuit name.

3 Q. All right. Let's go through this one column at
4 a time.

5 The first column I see here says "F-u-n-c-t,
6 L-o-c."

7 A. It's functional location meaning the circuit.

8 Q. Okay. And then for each one there's an ETL
9 number; is that correct?

10 A. Yes.

11 Q. And what does that number represent?

12 A. That circuit, that line name.

13 Q. And then the next column "Proposed basic finish
14 date."

15 A. Uh-huh. So that's due. And it needs -- well,
16 it needs to be completed at the headquarter level by the
17 end of 7/31/2013.

18 Q. Okay. So that's the -- what is the term I'm
19 looking for? Basically the drop-dead date that these
20 things have to be done by that date?

21 A. Negative. So this is the -- the calendar the
22 headquarters puts together. They schedule and plan their
23 work. The work is not -- by CPUC standard it's not due
24 until 12/31/2013. So these are calendars that are
25 completed by our headquarters when they're due, but the
26 work itself is not due or late until 12/31.

1 Q. Okay. So the work is due -- during the calendar
2 year it's due, but the company breaks it down by month or
3 at least in 2013 broke it down by month?

4 A. They break it down by month so they can schedule
5 their patrols and their personnel throughout the year.

6 Q. And the next column the description.

7 A. That's the name of the line.

8 Q. Okay.

9 A. Or the circuit or the functional location.
10 They're all kind of the same.

11 Q. The next column "MAT."

12 A. That's a material activity code that's on an
13 order. BFX meaning it's an air control. It's all on
14 accounting, which is not showing on here. And BFZ is the
15 detailed inspection.

16 Q. Okay. "Main work center."

17 A. Yep.

18 Q. Table Mountain.

19 A. Table Mountain. So all of our 11 headquarters
20 will have that column.

21 Q. And "Short text."

22 A. Short text is just saying what that MAT code is.
23 Short text is air patrol or BFX. Overhead detailed
24 inspection is BFZ.

25 Q. And the next column "STD text key"?

26 A. Yeah. So standard text key is something we use

1 in our maintenance plan to identify what type of. And
2 they're all ETL02 in transmission line. It's a SAP
3 field. It means nothing for the headquarters.

4 Q. Okay. And then the next column is "Work."

5 A. So it looks like in here it's the hours that
6 they get or plan to do the work; the patrols or
7 inspections.

8 Q. Got it. And the next is "Unit For Work,"
9 which --

10 HRS. Does that mean hours?

11 A. Yes.

12 Q. And finally --

13 A. Group counter. That is something we use in our
14 maintenance plan. We have different codes for different
15 types of patrols and inspections that we do.

16 Q. Okay. And can you explain briefly to us the
17 difference between them.

18 A. One AA is always air patrol. I'm not sure what
19 AO is. I haven't looked at that in a long time. AB
20 could be -- it could be a steel line. Let me think what
21 AB is.

22 It's something we use internally. It has no
23 bearing on the calendar.

24 Q. Okay. All right. So in 2003 -- 2013 -- I'm
25 sorry -- the calendar was done by months. Is that
26 correct?

1 A. That's what it looks like.

2 Q. So on page 1 has January, February, March,
3 April; page 2 May, June; page 3 July, August; and page 4,
4 which we don't have up, September, October, November,
5 December.

6 A. Yes.

7 Q. Okay. And by month are listed the dates for
8 doing various inspections?

9 A. Yes.

10 Q. So, for instance, on page 3 of 4 the first entry
11 under August says "Caribou-Palermo plus."

12 A. Plus means nothing. It's just on the circuit.
13 I don't think they're there anymore because a lot of them
14 have that.

15 Q. Okay. Now, when we get over here to the -- to
16 the side at the "Work" and "Unit For Work" columns," what
17 did you say that that represents?

18 A. How much time they have to do the patrol.

19 Q. Okay. So 2013 14.8 hours to do the air patrol
20 over the Caribou-Palermo?

21 A. That is what it says.

22 Q. Where do you come up with that number?

23 A. That number is based on the structures that are
24 on the Caribou-Palermo line and an equation that we get
25 from Business Finance. And I don't know where they get
26 that equation from.

1 Q. Okay. So let's back up. When you're talking
2 about putting out the calendar, this proposed calendar,
3 is this your work product?

4 A. This one wasn't. But, yeah, it would be the
5 asset strategists who put these together.

6 Q. Okay. And this is for 2013?

7 A. Yes.

8 Q. You started in -- you said March of 2012?

9 A. Yes.

10 Q. So walk us through the timeline for putting
11 together these maintenance calendars or these inspection
12 and patrol calendars?

13 A. So we generally -- and when I say "we," I never
14 called them out. It was a peer that was at a higher
15 level. But around November -- it could be earlier -- we
16 called SAP work management to call out these orders.

17 So we have them do it because there's so many.
18 There's a lot of PR notifications meaning -- a PR
19 notification is a structure on line.

20 They called -- we sent an e-mail. We ask them
21 to call up the next year's patrols. It takes them about
22 a week or two. And then we receive the patrols back, the
23 order numbers by line, and then we create this calendar.
24 And we just create it by, you know, the last year's
25 calendar or new calendar. It's not a compliance
26 document. It's something that we just download from SAP.

1 Q. Okay. So when you download this calendar, is
2 the "Work" and "Unit For Work" hours columns completed or
3 is that something that you need to add in?

4 A. That's -- we add that column in.

5 Q. All right. Can you explain to us how you come
6 to that figure.

7 A. Like I said earlier, we take the -- like the
8 Caribou-Palermo line, divide it by the structures, and
9 Business Finance provides us the equation of how much
10 time they have to do air patrols or detailed. And I do
11 not recall -- I don't know who comes up with that.

12 Q. Okay. What is Business Finance?

13 A. It's the people that give us the money, the
14 business finance function. There is a -- well, every
15 year we do our calendars. They go to Business Finance
16 and say "We've got this many patrol inspections." They
17 do the budget. It's essentially the budget for our
18 patrols and inspections.

19 Q. So they take the budget for every year and
20 determine under that budget how much time each?

21 A. Yeah, I guess. I've never sat with them.

22 Q. Okay. And then you said they send you an
23 equation that you used to determine that ultimate number
24 that goes into this?

25 A. Yes. At some point they did. Obviously, this
26 one they must have.

1 Q. All right. Okay. And what is that equation?

2 A. I can't be for sure. It's -- for an air patrol
3 it's how many -- it could be how many minutes per
4 structure. I don't know what equations that they used.
5 And then you divide it by how many structures or times it
6 by however many structures and that comes up with the
7 hours of work.

8 Q. Okay. When we previously talked to you, you
9 used the term "multiple" to describe what you got from
10 Business Finance?

11 A. Yes.

12 Q. Is that the correct term?

13 A. Yes.

14 Q. Okay. And is that number, that equation the
15 same every year or does it change?

16 A. I do not recall. I don't know what Business
17 Finance -- it could be -- I don't remember whether they
18 changed it or didn't or if it was the same every year. I
19 don't know.

20 Q. Now, when we left off, we were talking about the
21 calendar and schedule for setting these calendars. And
22 you said that you try to get out the proposed calendar
23 sometime -- I think you said in November; is that
24 correct?

25 A. Yeah. We try to strive to get it out usually by
26 the second week of November so that -- to all the 11

1 headquarters so they can look at it. And if there's any
2 changes that need to be made, they'll come back at us.
3 And we try to finalize it by the end of December so they
4 can start planning and scheduling their work for January.

5 Q. Is it common to have multiple drafts of this
6 calendar before the final?

7 A. Yes.

8 Q. Okay.

9 A. Several.

10 Q. Is it common to actually have additional drafts
11 after the final?

12 A. So after we get the final out, we don't usually
13 have additional drafts. There are many changes during
14 the year, in the course of 12 months where if there's,
15 like, high snow and they can't get in when they're
16 scheduled to be in -- this year we had a lot of that. Or
17 last year -- then we can move it out because it's not due
18 to 12/31/2000 -- at the end of the year.

19 Q. So once it's on final, it's final. And then if
20 there are any changes to it, those are just considered
21 changes as opposed to a final/final?

22 A. Yes.

23 Q. All right. Oh, and other than the fact that
24 this calendar we're looking at Exhibit 614 says
25 "Proposed" in its title, is there another way to
26 determine if that would show from the contents itself

1 that this would be a proposed and not a final?

2 A. It would say final in the wording. We try to
3 always put -- instead of proposal, we have the final. We
4 would put "2013 Final Patrol" or it could be "2013 Table
5 Mountain Final." There's no -- it's just our own
6 document. It's not a legal document, a compliance
7 document. It's for our headquarters.

8 Q. But at the top of the caption, at the top of the
9 title in terms of the information captured in the
10 schedule, is there some information that's not on this
11 proposed draft that would be on the final?

12 A. Yes. There's no order number. It's usually a
13 column number. That's what -- the patrol is an order
14 number for them to go out and do the work.

15 Q. All right. So let's move on to number 615.
16 That should be the next document in your stack.

17 A. Oh, that's little.

18 Q. Yep. And we can only work with what we work
19 with here.

20 A. Right. That's fine.

21 Q. So you recognize 615?

22 A. Yes.

23 Q. And what is 615?

24 A. It's just another calendar. I can't -- there's
25 no header on it. But looking at it, I would say it's a
26 proposed because I don't see any order numbers on here so

1 I know it's not a final draft.

2 Q. And proposed for what year?

3 A. Oh, 2014.

4 These aren't my regular glasses so they're --
5 sorry.

6 Q. And again, like the 2013 proposed schedule, the
7 schedule is broken down by month?

8 A. Yes. Everything looks the same.

9 Q. I will move on to -- this one doesn't actually
10 have pages because it's all one document.

11 A. Okay.

12 Q. But I want to move down to August and take a
13 closer look at August.

14 A. Okay.

15 Q. All right. So again, we have the same thing.
16 We have the functional location, which is the -- the ETL
17 number for the line, the date.

18 Now it's saying this is the 14th. So it's due
19 August 31, '14?

20 A. Yes.

21 Q. That's just internal; right? Caribou-Palermo
22 Plus Towers?

23 A. Yeah. That just came on the maintenance plans.
24 It means nothing. A lot of them have "tower" or
25 "insulator" or "wood pole." That's nothing.

26 Q. Okay. BFZ?

1 A. That's the MAT code that's on the border for the
2 work meaning that BFZ needs a detailed inspection. BFX
3 is air and BFZ is ground patrol.

4 Q. Okay. Table Mountain which is the work center?

5 A. Yes.

6 Q. "Transmission OH detailed inspection."

7 A. Yes.

8 Q. Correct?

9 And then again we have the columns for the work
10 and unit work hours?

11 A. Uh-huh, yes.

12 Q. And this time it says 89 hours.

13 A. Yes.

14 Q. And again, explain to us how that number was --
15 works.

16 A. That's Business Finance. They give us an
17 equation to times by the structures.

18 Q. All right. Let's move on to 578.

19 A. Wait. Which one?

20 Q. 578. It should be right there. Oh, duh. I
21 forgot to pull it out.

22 A. Well, I can look at the board.

23 GRAND JURY SECRETARY: We have it pulled out.

24 MR. NOEL: Thank you.

25 BY MR. NOEL:

26 Q. Now, 578. You have it on the board. You have

1 the original copy of it there; the evidence copy.

2 A. Okay.

3 Q. Now, this appears similar to 615 but a little
4 bit different.

5 A. Okay.

6 Q. And --

7 A. It's the same information, just a different
8 format.

9 Q. Okay.

10 A. That's what it looks like to me.

11 Q. So we talked about sometimes you'd send out
12 multiples of these, but they're different drafts and
13 everything that are sent out through the process;
14 correct?

15 A. Correct.

16 Q. Now, what year is this for?

17 A. 2014. It's cut off on here. Oh, it's not cut
18 off on here. Yeah, 2014.

19 Q. Okay. And again, we've got the Caribou-Palermo
20 on line number 91.

21 A. Okay.

22 Q. And as we go across this, we have this number
23 now in here. That's a 41980167 number.

24 A. That's the order number to go out and complete
25 the work.

26 Q. Okay. And then "Detailed Inspection." And now

1 in the hours column we have 90.5.

2 A. Okay.

3 Q. So this is the same information, but we've got a
4 change here. A minute -- or an hour and a half.

5 A. Okay. So -- okay.

6 Q. So is that common for that to change?

7 A. Yeah. It could be because now it's going to
8 become -- this is like the final draft. And perhaps
9 Business Finance came up with a different figure though
10 we had the proposed.

11 Q. Okay.

12 A. So that's -- and that happens.

13 Q. Right. And actually, I think if you go back and
14 look through it, it's difficult because of the format on
15 the 214 -- or 615.

16 A. Right. It was 89. It went up by one hour.

17 Q. Right. But it looks like several of the others
18 have also gone up?

19 A. The details?

20 Q. Right.

21 A. It looks like they have all gone up.

22 Q. The details?

23 A. Yes.

24 Q. Okay. And then here we have a blue column that
25 says 8/1/14 and a red column that says 8/31/14. What do
26 those mean?

1 A. That means when you do a patrol, it's due at
2 the -- it starts 8/1 to 8/31, 7/1 to 7/31. So they're
3 all like that. I don't know who put this calendar
4 together, but it's -- the orders are one month tags, one
5 month orders. It's due in that month.

6 Q. Okay. All right. So let's move on to number
7 616. Do you have 616 there in front of you?

8 A. I do.

9 Q. And you recognize 616?

10 A. Well, it looks like an e-mail from me saying
11 "Here's your 2015 proposed patrol" that I e-mailed out in
12 August.

13 Q. All right. Now, we talked about earlier
14 generally these things start going out in November, but
15 you said sometimes earlier?

16 A. Right. We can call them out earlier. It does
17 not hurt it to call them out earlier.

18 Q. All right. So who is (WITNESS #12)?

19 A. (WITNESS #12) was -- at that time was the
20 supervisor at Table Mountain.

21 Q. And how about (EMPLOYEE #16)?

22 A. A troubleman at Table Mountain.

23 Q. (WITNESS #21)?

24 A. Field clerk at Table Mountain.

25 Q. And who is Mary Hvis --

26 A. Hvistendahl.

1 Q. Hvistendahl?

2 A. Hvistendahl. She was a superintendent at that
3 time for transmission line.

4 Q. What is a superintendent?

5 A. Superintendent is the boss of -- she probably
6 had the whole northern division. She's got -- like the
7 supervisors fall underneath her.

8 Q. Okay.

9 A. I think at that time we had north and south.
10 And I think she was the north superintendent.

11 Q. All right. So reading the body of this, what's
12 going on here? What are you e-mailing them about?

13 A. Well, I'm sending them the patrols that we
14 looked at earlier saying "Here is your proposed 2015 air
15 patrols or inspections having the T-man update it to the
16 best guest you can. In case there's a change, it needs
17 to be filled out and sent to me."

18 Q. Okay. Now, let's move on to 617.

19 A. Okay.

20 Q. Recognize 617?

21 A. Yeah. It's just an e-mail indicating that I
22 went over the patrols again. I found one that -- it
23 looks like there was an air patrol and detailed for the
24 same year. When there's a detailed in the same year as
25 an air patrol, you cancel the air and do the detailed.

26 Yeah, that's it. So, yeah. I don't know if I

1 wrote it in here, but I definitely write e-mails like
2 this.

3 Q. How would you have both the detailed and air in
4 the schedule in the same year?

5 A. It's -- SAP schedules sometimes a lot of work
6 the same air and detailed. I can't tell you why they do
7 it, but it comes out. And when we call the patrol
8 inspections, we review this. If there's a detailed and
9 air, we cancel the air. We're not going to spend extra
10 money doing the air when the detailed boots are on the
11 ground.

12 Q. Okay. And do you have an inspection and patrol
13 cycle for each of the --

14 A. Yes. Every cycle is different depending if it's
15 steel structure, wood, all towers. Yeah, there's many
16 different schedules that is in our ETPM manual.

17 Q. Okay. So here's an example where, okay, we've
18 sent out the proposed schedule, found a mistake in it.
19 Here's basically another draft of the patrol schedule.
20 Is that --

21 A. So what's a mistake? I don't understand that.
22 There's not really a mistake.

23 Q. Okay.

24 A. Are we still talking about this e-mail?

25 Q. Yeah.

26 A. So no. They don't see that because I've already

1 identify that there's two patrols. It's not like
2 something in SAP came out like that. They won't see
3 that.

4 Q. Okay.

5 A. I would have deleted the air patrol.

6 Q. Okay. So let's move on to 618. Do you have
7 that there in front of you? Another
8 very-difficult-to-read one.

9 A. It's better though.

10 Q. A little better.

11 Do you recognize 618?

12 A. Yeah. Another patrol for, it looks like, 2015.

13 Q. All right. So it looks like a very similar
14 format to the exhibits we looked at before 614 and 615.

15 A. Yes.

16 Q. But there's one major difference that I can --
17 that looks to me. And do you recognize what that
18 difference is?

19 A. Yeah. It looks like this patrol probably had
20 two tabs on the original list. One's for air patrol,
21 one's for detailed is what I see.

22 Q. Okay.

23 A. So air patrols we would do quarterly. Whether
24 it had a January, February, March, they were all due in
25 March. And keep in mind they're not due until 12/31
26 ultimately.

1 Q. Okay.

2 A. So there's -- and then when it's -- on the
3 second page, it looks like it's all detailed. It's
4 detailed inspections. And they're done when they're due.
5 If it's got a January date, it's due in January. If it's
6 got a March date, it's due in March and on down the line.

7 Q. Okay.

8 A. So this looks like it was probably one document
9 with two tabs.

10 Q. Right.

11 A. And this is how we usually -- we do them now.
12 And maybe that changed in 2015. I do not know.

13 Q. Okay. So was there a change in the way that the
14 air patrols were scheduled between 2014 and 2015?

15 A. Well, I don't recall. Maybe they did them the
16 month they were due. I can't be for sure.

17 Q. Okay. This here. Like I brought back up 578,
18 which is the 2014. And it divides it by month. And we
19 have both air patrol and detailed inspections by month.

20 A. Right.

21 Q. Same thing on the -- on 615 for 2014 and then on
22 614 which is the 2013 same thing. We've got it broken
23 down by month and it's air patrol?

24 A. Yeah. It looks like they did them by the month
25 for every kind of patrol. And then it looks like in 2015
26 based on this we separated it in two different tabs; one

1 by air, which is quarterly here, and one by detailed
2 which is monthly.

3 Q. Okay. Now, 618. Can you tell if that's a draft
4 or if this would be a final?

5 A. Well, it's got the order numbers on it. It
6 potentially could be the final, but there's usually a
7 header at the top that will say "Final." And I don't see
8 that here. So I can't tell you for sure this is a final.

9 Q. Okay.

10 A. But it does have more data on it including that
11 first column which is the number for the patrols to be
12 done on and charged to.

13 Q. And third quarter we have here. And there's no
14 line numbers on this but --

15 A. I see it.

16 Q. Caribou-Palermo?

17 A. Uh-huh, yes.

18 Q. With an order number 42292776?

19 A. Yes.

20 Q. And that would be the number that would -- the
21 order number that would go on all the paperwork related
22 to that inspection or patrol?

23 A. Yes, yes.

24 Q. Okay. And again, over here we have the hours
25 column again and we have 14.8 hours.

26 A. Yes.

1 Q. So that didn't change between 2013 and 2015?
2 A. It shouldn't have.
3 Q. All right. Let's move on to 619. Do you have
4 that there in front of you?
5 A. I do.
6 Q. Do you recognize 619?
7 A. Well, it looks like an e-mail from me back in
8 2016.
9 Q. Go ahead and read it.
10 A. It looks like it's the projected patrol
11 inspections for 2017. So it's sending it to (WITNESS
12 #21) and to the T-man and the supervisor with their 2017
13 proposed inspection -- patrols and inspections calendar.
14 Q. Okay. And like we -- you know, one of the
15 things that we deal with with e-mails and e-mail chains
16 is they actually go from reverse chronological order.
17 A. Right.
18 Q. So the first e-mail would be the bottom e-mail
19 on here; correct?
20 A. Yes.
21 Q. And that's an e-mail from you?
22 A. Uh-huh, yes.
23 Q. And what is the date on that?
24 A. October 31, 2016.
25 Q. And we already identified (WITNESS #12) and
26 (WITNESS #21)?

1 A. Yes.

2 Q. You're (WITNESS #9)?

3 A. Yes.

4 Q. And who is Stacie Doyle?

5 A. Stacie Doyle. At that time I think she was my
6 supervisor. Yes, she was my supervisor.

7 Q. Okay. And go ahead and read the e-mail really
8 quick.

9 A. "Please see the attached spreadsheet with your
10 projected 2017 patrols/inspections for Table Mountain.
11 If you'd like to review the calendar with the T-men, let
12 me know if anything seems to be missing or needs to be
13 realigned. Your air patrols will be bulked quarterly
14 again as they were this year."

15 And it's two tabs that they had in 2015 as well.

16 "The actual call of the PMS will happen sometime
17 before Thanksgiving."

18 So it looks like what I did here is I pulled out
19 the proposed patrols and inspections through 2017 early.
20 I hadn't actually called the orders out yet. Or Stacie
21 hadn't called the orders out yet. Same information. We
22 just wouldn't get the orders.

23 Q. Okay.

24 A. So just going into SAP, pulling a document of
25 what are the proposed patrols and inspections without
26 calling them.

1 Q. Okay. So we talked about this earlier, you
2 know, that someone calls the orders out?

3 A. Yes.

4 Q. And you said that that person would have been
5 Stacie Doyle?

6 A. No. Stacie at the time called out -- when I say
7 called out, they called the work management gurus or the
8 work management team Mary Laufenberg. And they called
9 the orders out. So she sends an e-mail -- there's
10 actually a document in PG&E like a program that's -- we
11 track it. It goes from "Please call out our ETL lines
12 for the year 2017." It goes through e-mail. It goes to
13 a SAP management team somewhere. And Mary Laufenberg is
14 the person that usually provides all the orders for us.

15 Q. Okay. So I'll make sure I've got this straight.
16 So when you're ready to start putting together the
17 schedule for the next year, you would tell Stacie Doyle
18 to request the call-out?

19 A. Yeah. I didn't tell Stacie. She knew. She
20 called out the orders all the time. So, yes, I would
21 say -- she would say "We're ready." She calls them out.
22 We work together as a team to go through them.

23 Q. And those would go to somebody in what division?

24 A. They don't go to anybody. They come to Stacie
25 Doyle at the time. Stacie would then -- we, her team,
26 which is the asset strategist/asset maintenance planner,

1 would look at the calendar. We review them and send them
2 out to the headquarters whatever headquarters were
3 assigned to us.

4 Q. Okay. You mentioned a division and somebody
5 named Mary Laufenberg.

6 A. There's no -- I don't know what -- if I said
7 division, I don't know why. We don't have divisions.
8 But Mary Laufenberg works for PG&E. She works in the --
9 I call them the SAP work management gurus because somehow
10 we call them, they can make a mass change that we don't
11 have the capability of doing. I don't know how they do
12 it. But she provides us with all the order numbers for
13 them to do the next year's patrols.

14 Q. Okay. That's where I was getting confused. And
15 I want to make sure we got that straight.

16 A. Sorry.

17 Q. That's okay.

18 All right. So when you're setting this out, you
19 are setting out a preliminary schedule before that
20 process has been --

21 A. Yeah. It looks like I did that here, which we
22 can do. We probably called orders two weeks later
23 because it was the end of October.

24 Q. All right. Let's move on to 620. Do you
25 recognize 620?

26 A. Yeah. It looks like an e-mail to me -- I mean,

1 from me.

2 "Please find attached the updated Patrols for
3 the Calendar for 2017. There are still two patrols.
4 We'll work on next Tuesday for the following two
5 circuits. You have requested both the ground inspections
6 and not an air patrol. Please look over the calendar and
7 let me know by the end of business."

8 So these two lines are in the heart of Chico in
9 town. They can't have air patrols. We're not allowed to
10 have helicopters. So this was telling me I was going to
11 update these to all ground patrols moving forward which
12 was done.

13 Q. Okay.

14 A. So that's all this one is.

15 Q. And so now we're -- what's the date of this?

16 A. December 23, 2016. So they've got the calendars
17 by now. They've got their final calendars for 2017.

18 Q. Okay. Yeah. And that's the subject of it here.
19 2017. What is "P&I"?

20 A. Patrols and inspections.

21 Q. Okay. Table Mountain HQ?

22 A. Final.

23 Q. Final?

24 A. Yep.

25 Q. So if we were looking for this document, would
26 that be the name that this document would be saved under?

1 A. Yes.

2 Q. Okay. So there should be a 2017 schedule?

3 A. Yes.

4 Q. There should be a 2018 schedule?

5 A. Yes.

6 Q. And there should be a 2019 schedule?

7 A. Yes, there is.

8 Q. Okay. So before we move on, talk about those --
9 the work hours that we were talking about, the estimates
10 for how long it should take them or that they're budgeted
11 to perform those.

12 You took over as asset strategist in 2012;
13 right? March of 2012?

14 A. Yes.

15 Q. When you took over, was that -- was that what we
16 kind of came to term the allotments, the budgeted work
17 hours part of the yearly patrol and inspections
18 schedules?

19 A. Yes.

20 Q. At some point did that change?

21 A. I think that in 2016 it changed to where we
22 didn't put those hours for the upcoming patrols in 2017.

23 Q. So was that -- was the hours replaced or were
24 they put someplace else?

25 A. They didn't add that column. It was a column
26 that we added. It wasn't anything from SAP. We added an

1 extra column with the work hours.

2 Q. Okay. Were you still budgeting work hours for
3 each inspection?

4 A. I don't do budgets. So Business Finance may
5 have. We did not.

6 Q. Okay. I guess the way I should ask it is were
7 you still doing the calculations based upon the equation
8 that Business Finance provided to you?

9 A. No.

10 Q. All right. So there wouldn't be that work hours
11 column in at least the '17, '18, and '19 schedule?

12 A. That is correct.

13 Q. All right. So let's move on to 621. Sorry. Do
14 you see the document marked 621?

15 A. I do.

16 Q. And do you recognize 621?

17 A. I've seen it.

18 Q. All right. What is 621?

19 A. Exhibit 621. Evan Geisert came into PG&E in
20 2014. It was creating a work management team. He needed
21 someone to be a clerical support person to all the
22 clerical personnel. And I was named the temporary one.
23 I believe I started in September of 2014.

24 Q. Okay.

25 A. Maybe the end of September.

26 Q. So in terms of his position with the company or

1 in the transmission division, what was Evan Geisert's?

2 A. Superintendent for transmission line.

3 Q. For all of the transmission lines or --

4 A. No. He did work management. He was with the
5 work management team under transmission line. There's
6 different things.

7 Q. And then this is addressed to himself?

8 A. Yes.

9 Q. And someone named Lawrence Kazmierski?

10 A. He was a director at the time of the
11 transmission line.

12 MR. NOEL: Can you see the spelling up there,
13 Madam Reporter, or do you need me to --

14 THE COURT REPORTER: Oh, wait. Hang on a
15 second. Okay. I got it.

16 BY MR. NOEL:

17 Q. I'm sorry. Who was Mr. Kazmierski?

18 A. At that time he was a director under
19 transmission line.

20 Q. And what is a director?

21 A. One of the big bosses that all the
22 superintendents report up to him.

23 Q. Okay. And, of course, we know who (WITNESS #9)
24 is.

25 A. Yes.

26 Q. Who is John Parks?

1 A. He was a senior director in charge of all of
2 transmission line.

3 Q. And who is Nick Daleo?

4 A. Nick Daleo is someone who was a supervisor that
5 worked under Evan Giesert.

6 Q. So Mr. Giesert comes in as the new supervisor of
7 the T-line work management group. Is that what I -- do I
8 understand that correctly?

9 A. Yes.

10 Q. And then made some changes as to how things were
11 done?

12 A. Yes.

13 Q. Is that true?

14 And one of those changes was that you got
15 promoted?

16 A. Yes, on a temporary basis.

17 Q. So can you read us this e-mail and kind of
18 explain it as we go.

19 A. Read the whole thing?

20 Q. Yeah.

21 A. Okay. "I am sure you have all read the
22 organizational announcement from yesterday. We will be
23 setting up a brief call tomorrow to discuss and address
24 questions. Additionally, (WITNESS #9) will be setting up
25 time with you and your respective supervisors to talk
26 through the next steps."

1 Q. Okay. So let's stop right there. The (WITNESS
2 #9) that is being referred to, is that you?

3 A. Yes.

4 Q. And who are you going to be contacting and what
5 are you going to be talking them through?

6 A. So it looks like -- because I'm the clerical
7 supervisor now temporarily, I'm going to be talking to
8 all the supervisors that the clerks actually report to on
9 a daily basis.

10 Q. Okay.

11 A. The clerical staff at each headquarter.

12 Q. Okay. All right. So now go on.

13 A. "There are a few things I want to clarify.
14 There is no question that the clerical team is a critical
15 component of the organization. Your consistent and
16 substantial efforts enable operational execution and
17 compliance. Our overreaching goals with this
18 re-organization are to ensure supervisors receive
19 consistent and optimal clerical services, clerical team
20 receives improved support and governance --" I can never
21 say that -- "clerical services are affordable and
22 leverage scale and technology.

23 Short term the organization will change very
24 little. You will continue to support your local
25 headquarter as you do today. We will be inventorying
26 processes and surveying the team on what is working well

1 and opportunities that require action."

2 More?

3 Q. Yep. Go ahead.

4 A. "Long term the organization and support services
5 will change. We will be looking to improve support to
6 the supervisors, eliminate process waste, and leverage
7 our scale and technology. This will be an inclusive and
8 transparent process based on partnering with you and the
9 supervisors to find and implement solutions.

10 Look forward to speaking with you over the next
11 few days and throughout the process. Please give me a
12 call if you have any questions. Evan Geisert."

13 Q. Any idea what any of that means?

14 A. He liked to do a lot of fluff. So yes. In
15 layman's terms I became his clerical supervisor. The
16 clerks reported directly to a supervisor at the
17 headquarters. My -- what Evan's vision is is to have a
18 supervisor manage them. It could be for vacation relief.
19 It could be if they needed help at one headquarters or
20 the other. That's what my role was to make sure all the
21 work is being done throughout all the headquarters in
22 transmission line.

23 Q. All right. So he mentioned in here an
24 organizational announcement from yesterday.

25 So now let's move on to 622. And the same
26 question. Ask you --

1 A. I don't think I can read this. I can't.
2 Q. It's a little bit better on the big board.
3 A. Oh, yeah.
4 Q. And we can actually --
5 A. Do I have to read that whole thing?
6 Q. No. I just want to kind of ask you about it.
7 A. I'll have to stand up.
8 Q. It's not real great. The quality of the copy of
9 a copy of a copy of a copy is not the best.
10 But do you recognize this document marked as
11 622?
12 A. Yes.
13 Q. Is this the work announcement referenced in 620?
14 A. That's what it looks like.
15 Q. And can you just -- you don't have to read it.
16 Can you kind of explain to us what's going on here, what
17 the changes are, and how this affects the --
18 A. Well, it just -- he's developing his work
19 management. He wanted a clerical piece, program manager
20 which manages the budgets, works on capital. And what's
21 that? Resources and -- that's planning and scheduling,
22 corrective work, contract work, patrols and inspections.
23 That's really hard to see. Resources and work
24 would have patrols and inspections.
25 Q. Okay.
26 A. They would have all end corrective work.

1 Q. And then down here at the bottom it says
2 "(WITNESS #9) will serve on a rotational basis as a
3 supervisor over clerical support."

4 A. Yes.

5 Q. All right.

6 A. So I had different people that were doing
7 functions.

8 Q. Right. And one of those is Sean Clesen it looks
9 like?

10 A. Yes.

11 Q. And who is Sean Clesen?

12 A. Sean was a new person that came over and worked
13 with Evan. I don't know what he did. I can't read that.

14 Q. It says "Transition to a new role focused on the
15 internal reporting, governance, process improvement, and
16 initiatives."

17 A. I don't really know what he did.

18 Q. And then there's (EMPLOYEE #8).

19 A. Yes.

20 Q. Do you know who she is?

21 A. Yeah. She was asset strategist/asset
22 maintenance planner. She was my equal.

23 Q. So she will serve on a rotational basis as the
24 operational analyst lead.

25 A. Yes. So maybe she -- I'm not really sure what
26 she did. Maybe running reports.

1 Q. How about Jefferson Heidelberger?

2 A. He was transferred from Business Finance. So it
3 looks like he was program manager, supporting
4 maintenance. So he was a new guy under Evan too. And I
5 really don't know what he did.

6 Q. Okay. So he's somebody that came in from
7 Business Finance; right?

8 A. Yes.

9 Q. Those are the people that control the budget?

10 A. Yes. I don't think he had anything to do with
11 the budget here. He just came under the work for
12 transmission line.

13 Q. Okay. And then going down to the next page we
14 have Donna Thorne. Do you know who Donna Thorne is?

15 A. Yeah. Donna has been retired. She was an asset
16 strategist/asset maintenance planner and she was also a
17 clerical supervisor after I left. I only did it for
18 three months. And then Stacie Doyle was the office
19 strategist. She was a supervisor in 2002.

20 Q. You said Donna Thorne is retired?

21 A. Yes. She's been retired a little while.

22 Q. And you started in 2012; right?

23 A. Yeah.

24 Q. Was Donna Thorne already there as an asset
25 strategist when you started?

26 A. Yes. Her and Stacie were both there.

1 MR. NOEL: Do you need any other names spelled?

2 THE COURT REPORTER: I can't see it either. So
3 I'll have to -- I'll get it later. I can't see it.

4 BY MR. NOEL:

5 Q. All right. Let's move on to 623 which is a
6 little bit easier to read but not much.

7 Do you recognize 623?

8 A. Yeah, I sure do.

9 Q. And again --

10 A. It's an e-mail I wrote a year ago. A little
11 over.

12 Q. Okay. And again walk us through what this is.

13 A. Okay. So every year PG&E gets audited by the
14 California ISO, which is the CAISO. We get audited every
15 year on the lines, probably 15 to 20 lines that they're
16 going to do an audit on us.

17 So what I did is I sent an e-mail to all the
18 clerks who are up there. So I sent an e-mail to them
19 asking them to provide me all the order numbers that they
20 did on insulator washes which somebody still wants to
21 know. So I sent it to all the clerks. I didn't know.

22 So the next one up Tina is a clerk in Victor and
23 a man by Justin -- you probably can't see it, but his --
24 it's like right here (indicating).

25 Q. Okay.

26 A. Okay. So he does all the washes whether it's

1 helicopter washes or ground washes and then in the body
2 he writes how many structures. And then this doesn't
3 have all the information, but it will tell me what line
4 it's on. So I provided all my information to Justin
5 Young. I didn't know who to get it from, but she told me
6 that.

7 Q. Okay. And the information that you got from
8 Justin Young is what is in here?

9 A. Yeah.

10 Q. And so --

11 A. And this is just a couple. It will say 20
12 structures. I can't tell. Does it have a line name on
13 there? I can't tell.

14 Q. Yeah, it's hard to read what we've got in there.

15 A. Oh, it looks like I was looking for the two
16 lines; the Cottonwood Number One and Cottonwood Number
17 Two, where it says "20 structures." And she verifies it
18 with Justin in a long text from notification.

19 Q. And then one of the questions on here you're
20 asking for all the insulator washes in 2017. And then
21 there's a follow-up e-mail on here. It looks like it's
22 from (WITNESS #21) responding to your e-mail and it says
23 "Can you verify that the 2017 work was completed in 2017
24 instead of 2016."

25 A. I don't know what that means.

26 Q. And then in this stuff on Justin Young it shows

1 it as a 2017. But when you read down here, it says 20
2 structures washed 6/1/16 per those?

3 A. They might have sent the wrong information. I
4 don't know.

5 Q. And this is the information from the SAP?

6 A. It looks like it's on a notification in a long
7 text, but there's not that much information there.

8 Q. Okay. All right. Let's move on to 624. Do you
9 recognize what that is?

10 A. It looks like an e-mail that was sent from
11 (WITNESS #21) to me with a few e-mails.

12 Q. Okay. Yeah, it's an e-mail chain between you
13 and (WITNESS #21)?

14 A. Yeah.

15 Q. And that took place when?

16 A. She sent the e-mail February 9, 2018. It's at
17 the very bottom.

18 Q. And the subject is listed as "Paradise Table
19 Mountain Missing Equipment."

20 A. Yes.

21 Q. Is that correct?

22 A. That's what it looks like.

23 Q. So it starts off with (WITNESS #21) e-mailing
24 you about some problems and then you responding back.

25 A. Yeah, yes.

26 Q. All right. Can you explain to us the problem

1 that (WITNESS #21) is expressing in her initial e-mail?

2 A. Yeah. So she writes --

3 (Court reporter interrupts the witness.)

4 THE WITNESS: So what she's looking for is they
5 went out on a patrol it looks like. They have Structure
6 :11/99A which has created notification, a notification.
7 She tried to create a job.

8 "It indicates that this is no longer a valid
9 structure. When I pulled the 2017 detailed inspections,
10 I noticed that this structure has now been removed from
11 the master equipment list.

12 Can you please research this and let me know
13 what's going on. Why did all these 'snakebite' locations
14 fall off the master equipment list? Are they recoverable
15 and need to be added back? Was there a renumbering
16 issue?"

17 And then my response --

18 Q. Well, hold on. Let's break this down first and
19 explain things. So what does it mean to create a
20 notification?

21 A. So without looking at the notification, it looks
22 like somebody went out and did a patrol. And they had a
23 finding on this Structure :11/99A which created a
24 notification. It looks like she tried to create a job,
25 but it says that that equipment number. So there's an
26 equipment number tied to this, a SAP equipment number

1 tied to the :11/99A. It sounds like she's saying it's no
2 longer there, it's no longer a valid structure, it's not
3 in existence. That's how I'm reading this.

4 Q. Okay. So that's what I want to make sure.

5 A. Okay.

6 Q. And then it goes down here and it says "Why do
7 all of these snakebite locations fall off the master
8 equipment list?"

9 A. See, I don't know what that means. What
10 snakebite means I don't know.

11 Q. Is it common for the master equipment list in
12 SAP to not be entirely correct?

13 A. Yeah. It could have been mapping removed it and
14 we weren't contacted or a contractor might have removed
15 it. I don't know. Without looking into it I have no
16 idea.

17 Q. But it looks like the structure was there when
18 the inspection was done and now it's no longer in the
19 system?

20 A. That's what it looks like.

21 Q. Okay. And then your response to her. Can you
22 read that.

23 A. "I will look into this later this afternoon. I
24 am currently not in the office."

25 And then I said "Mapping does all the equipment
26 record entries and it's making me mental." Sorry. "Did

1 you check GIS to see what the equipment record is
2 showing?"

3 So GIS is, you know, our system that has all the
4 reliance.

5 Q. Okay. And who is mapping?

6 A. The Mapping Department is in charge of all
7 equipment records and SAP to create, delete, or make
8 changes. They started -- they took that over around the
9 end of 2015.

10 Q. And why is mapping making you mental?

11 A. I was joking. Okay. It's (WITNESS #21).
12 I'm -- you know.

13 Q. No. I know.

14 A. And mapping has some issues. In my opinion,
15 they have -- it was new for them to -- well, not really
16 2018, but it's their responsibility. They took over all
17 the equipment. It is not ours.

18 Q. Okay. And then up here now we're talking
19 (WITNESS #21) responds back to you.

20 A. "I don't extend myself to GIS because I have
21 seen such a conflict with the iPad information, and
22 that's jumping into a whole different arena."

23 Q. Okay. What is the conflict between the GIS and
24 the iPad information?

25 A. I don't know. The iPad -- all information in
26 GIS downloads into the iPad. If the equipment records

1 aren't correct in GIS, it's not going to be correct in
2 the iPad.

3 Q. Okay.

4 A. That's a mapping concern. I don't know.

5 Q. And is there conflicts between the information
6 in GIS and the information in SAP?

7 A. There could be, yes.

8 Q. Okay. And the iPads -- what are we talking
9 about the iPads?

10 A. The iPad is what they do their patrols and --
11 their patrols on. When they go out and do a walk and do
12 a detail, it's on an iPad. So they go structure to
13 structure. It has the equipment numbers and the forms
14 they fill out.

15 Q. So is the iPad based upon GIS or is it based
16 upon the SAP?

17 A. Well, in -- this was 2018. It would have been
18 based out of GIS.

19 Q. All right. So let's move on to 625. And this
20 is another in the same -- just another part of the same
21 e-mail chain; right?

22 A. Yeah. It should have all been together but,
23 okay.

24 Q. But actually --

25 A. It's kind of snippets or something.

26 Q. One of the interesting things about the way we

1 get this stuff is if you look down at the bottom of the
2 document number --

3 A. Yes.

4 Q. See, they're not consecutive. So they're kind
5 of off.

6 A. Okay.

7 Q. So I can't really staple them together and
8 respond and put them as one thing if they're --

9 A. Okay. So this is that same e-mail that we just
10 went over in that last document. And then it looks --

11 So do you want me to read it again?

12 Q. No, no.

13 A. And then my response was "I will be in the
14 office at 9:30 today and I will take care of this
15 request. I've been having some medical issues. It
16 sucks." Sorry. "Getting blood taken in 20 minutes,
17 Hopefully, I'm still alive. LOL."

18 Q. Obviously, you survived?

19 A. I survived. I don't like needles so . . .

20 Q. All right. So this is just another portion of
21 the same?

22 A. Yes.

23 Q. All right. Let's move on to 626.

24 A. Okay.

25 Q. And this starts off with a -- with an e-mail
26 from (WITNESS #21) to you in October of 2017.

1 A. Okay.

2 Q. And explain to us what's going on here.

3 A. Well, it sounds like she sent me an e-mail
4 indicating she had an issue with the object list. It
5 wouldn't print. She said it was 23 pages and they want
6 to do patrols as soon as possible.

7 My response to the T-man and to (WITNESS #21) is
8 "This patrol is ready to print now with all the
9 structures on it. I believe there are 44 pages. This
10 was a strange one and I am still looking at the whole
11 maintenance plan."

12 Q. What is a maintenance plan?

13 A. The maintenance plan is what creates all the
14 orders for them to go out and do their patrols and
15 inspections.

16 Q. Kind of explain to us what goes into the
17 maintenance plan.

18 A. It's the schedule. It's a cycle of the years.
19 You know, every year it depends on the cycle that line is
20 on.

21 Q. So it's not like an individual plan for each
22 individual line?

23 A. It is an individual plan for an individual line,
24 yes.

25 Q. Okay.

26 A. Every circuit has their own maintenance plan.

1 Q. Okay. And what goes into that maintenance plan?

2 A. Well, what we do -- there's a maintenance plan
3 and then all the structures -- they're called
4 maintenance. We call maintenance items that we attach to
5 the plan, but it's a PR notification that we attach to
6 the plan.

7 Q. Okay.

8 A. And then they go out and do their work. It
9 creates an order which is on our calendars.

10 Q. Okay. And what is the object list, if you know,
11 that's referenced in (WITNESS #21)'s initial interview?
12 Or I mean, e-mail?

13 A. Yeah. So the object list is what -- it's like a
14 document that has each structure, what it is, and if
15 there's -- when the guys go out to do their patrols, they
16 write on it if there's anything wrong. It's structure by
17 structure.

18 Q. So that's the same as the transmission object
19 list that is attached to every inspection?

20 A. Yeah. It's -- yeah, that's what the object list
21 is. And it sounds like she was having difficulties. Or
22 SAP, our system, has difficulties at times. And maybe it
23 wasn't printing. I looked at patrols. I don't know why
24 I wrote 44 pages when it was 23. Without looking into
25 it, I can't -- I don't know.

26 Q. Okay.

1 A. But this isn't abnormal.

2 Q. And let's move on to 627. Okay. Do you
3 recognize 627?

4 A. Yeah.

5 Q. Can you explain to us what we're looking at
6 here.

7 A. So it looks like at the bottom that's called an
8 RW Request Work Notification. Without seeing what's in
9 that -- where it's got the highlighted area, it says that
10 (WITNESS #18) went out and looked at the line. It looks
11 like it was removed on a capital order which starts with
12 a three series number. All the ports were topped at 12
13 kV level, removed all tags and notifications from the
14 structures.

15 So there's a corrective order instruction. It
16 no longer belongs to transmission line. This is a
17 mapping issue at this point.

18 Q. Okay. So earlier we were looking at a case
19 where we have a structure there that is no longer in SAP.

20 A. Right.

21 Q. In this case we have an entire transmission line
22 that's not there that's still in SAP; right?

23 A. Yes. So this RW was created. And if you see
24 from (WITNESS #9) to Mike Franks. Mike Franks is our
25 mapping person. So I sent this to him with my note
26 "Please let me know how I should proceed with this

1 request." And I wrote "T-man indicates these structures
2 are gone."

3 He's out -- you know, he's out there. There was
4 pictures that were attached to the notification, to the
5 RW it looks like.

6 And then I wrote "Can you shed some light on
7 this for me." And that's what Mapping does. At that
8 point it's out -- we don't -- we're not responsible.

9 Q. Okay. Let's move on to 628. Do you recognize
10 628?

11 A. Yeah. Just another long e-mail.

12 Q. If you could explain to us what we're looking at
13 here at 628.

14 A. So it's my original e-mail I received from
15 (WITNESS #21). So this is another RW notification. It
16 comes to our asset strategists. It says "Asset data
17 correction." And then under "Work Type" it has "ETAS."
18 That means planners.

19 So these are requests to come to us in SAP. We
20 go and make the updates. This was in 2016. And this is
21 when the transition was coming from us to Mapping
22 Department. So it looks like (WITNESS #21) sent an RW.
23 And that little highlighted part "There was no
24 attachment." I wrote "No attachment on notification" and
25 sent it back to (WITNESS #21).

26 (WITNESS #21) wrote "The patrol is attached now.

1 Thanks."

2 Q. Okay. Let's stop here. What should have been
3 attached to this RW?

4 A. I think the object list. What has changed out
5 there? So the patrol has been done, but she needs
6 equipment. I think her e-mail said for equipment
7 changes. Yeah, her e-mail says "Went to the detailed
8 patrol 2012. Please complete the equipment changes. See
9 attachments." And then I wrote back "There is no
10 attachment." But it is the object list.

11 Q. So the object list itself was being uploaded
12 into the SAP?

13 A. Well, it wasn't. She forgot to attach it.

14 Q. But it should have been?

15 A. Yeah. She scanned it with all the notes and put
16 it on the RW.

17 Q. All right. And then moving on to this --
18 through this -- through this change of e-mails. So
19 (WITNESS #21) attaches the object list and sends it to
20 you. And then what happens next here?

21 A. Well, then it looks like the -- I wrote "The
22 patrol shows that there are 52 single wood poles that now
23 should be light duty steel pole structures."

24 Q. What does that mean?

25 A. It means those 52 poles were changed out to
26 light duty steel structures at some point. And I wrote

1 "I do not see anything in Mapping. Please let me know
2 once you contact the T-man." Because now I need to
3 verify it in the field. So, you know, talk to the T-man
4 and have him call me.

5 Q. So are there different standards for wood poles
6 and light duty metal pole structures?

7 A. I don't know what you mean by "standards."

8 Q. For example --

9 A. One is wood and one is steel.

10 Q. Right. First, the ETPM. Are there --

11 A. There are different levels. We try to -- as we
12 started replacing poles in the field for many years, we
13 try to do light duty steel poles instead of wood. We
14 replace our old wood poles.

15 Q. So here's where the paperwork is still showing
16 that these 52 single wood poles, that they've actually
17 been replaced at some point by light duty pole
18 structures?

19 A. Yes.

20 Q. And that hasn't been updated in the system?

21 A. No, it doesn't look like it in that e-mail.

22 Q. Okay. Let's move on to the next part of this
23 conversation.

24 A. So then it looks like (WITNESS #21) e-mailed
25 (WITNESS #11) who is the troubleman saying "I need to
26 talk with you about this inquiry." And then (WITNESS

1 #11) -- I mean, not (WITNESS #11). Excuse me. (WITNESS
2 #11) wrote "(WITNESS #12) was talking about having the
3 T-man next week. I was thinking that this may be
4 something we can try and figure out at this time if this
5 works for you. In the meantime, like Ryan can help me
6 figure out the dates. Most of these poles were changed
7 out by contractors."

8 Q. Okay. Who is Mike Ryan?

9 A. Mike Ryan -- I believe at the time he was a
10 foreman in the contract department. So looking at
11 this and (WITNESS #11) says "I'm thinking most of them
12 were changed out in 2014 and 2015." And he'll try to get
13 a copy of the patrol to Mike for his input meaning he's
14 going to show him that these 52 wood poles that are
15 showing on this patrol are really -- they're steel poles
16 now.

17 Q. Okay. And he tried to figure out when this
18 happened?

19 A. Exactly, which means contractors put -- changed
20 out the poles and Mapping was never notified.

21 Q. Yep. And then we get to the final e-mail here
22 from Mike Ryan?

23 A. Yeah. So he's sending something to Mike Ryan
24 about "Do you have any information? Do you have any 2012
25 or 2013, Mike? I only see a few structures on this line
26 for the last couple of years. We may have to look into

1 GC Transmission also to see if they have changed out any
2 of them. I'm thinking (WITNESS #8) crew may have --"

3 And (WITNESS #8) is the GC crew on the
4 transmission line.

5 Q. Okay.

6 A. And they may have changed it.

7 Q. Okay.

8 A. And then "Per Stacie Doyle I was informed that I
9 can just update the existing SAP equipment number
10 changing them from a single wood pole to a light duty
11 steel pole. There is no need to look for any forms that
12 may or may not have been submitted," which we then --
13 this was right in the transition of Mapping taking over,
14 but we still were in charge so we updated them to steel
15 poles.

16 Q. Okay. All right. So we've done an inspection.
17 The transmission poles aren't what they're supposed to
18 be. And that sets off a lengthy search to find out why
19 this hasn't been recorded and when it actually happened?

20 A. Right. But they were identified by the T-man to
21 be changed out.

22 Q. Right.

23 A. And that was identified on the object list.

24 Q. And what is the procedure within PG&E if a T-man
25 finds that a structure is gone or a structure that's not
26 supposed to be there is there or a structure is changed?

1 It's gone from wood to metal or something?

2 A. With the steel. So they should identify that.
3 They write it on their object list. They try their best
4 to figure out what -- you know, what kind of a pole it
5 is; light duty wood pole, steel pole. And the
6 headquarters will contact Mapping.

7 Now, at this time it was right in that area
8 where Mapping was starting to take over. So we may have
9 tried to get as much information on a form, you know, a
10 new change-out equipment if we could.

11 Q. So prior to 2016 who would have been responsible
12 for making the changes in SAP and GIS?

13 A. We did; the strategists. The asset
14 strategists/asset maintenance planners. The troublemen
15 would have a form to create a delete form or change. And
16 they would turn it into us so we would make the updates.

17 Q. And they were supposed to do that at any time
18 there were changes to the actual --

19 A. Yes. And we received many.

20 Q. All right. Let's move on to 629. Do you
21 recognize 629?

22 A. Yeah. It looks like an e-mail from -- well, it
23 started out from Andrew Franzen who at that time was the
24 Clerical Support Services Supervisor for the clerical
25 personnel in transmission line. And he wrote "Would you
26 be --"

1 And he's sending this to Anthony Alexander who
2 at that time was a program manager.

3 So he wrote "Would you be the contact -- would
4 you be the contact for a clerk that needs 100,000 plus
5 moved from orders or is that an asset strategist duty?"

6 Q. What does he mean by "needs 100,000 plus moved
7 from orders"?

8 A. So without knowing what order, it could have
9 been the crew went out and did some work on -- expense
10 work and maybe got -- poles needed to be changed out.
11 They need to go to capital orders. So they wanted to
12 move the \$100,000 from expense to capital.

13 I'm not sure of the scenario here. There are
14 times where people use order numbers, transpose numbers,
15 and charge time or we need to move it out.

16 Q. All right. And jumping up to the top of this
17 e-mail, you're not involved in this e-mail chain;
18 correct?

19 A. It doesn't look like I'm involved for a -- yeah,
20 not at all.

21 Q. Just up here (indicating).

22 A. Not at all.

23 Q. But in the last e-mail on this 9/26 2:50 p.m. it
24 says "I already talked to (WITNESS #9) about moving
25 monies."

26 Do you recall having such a conversation with

1 (WITNESS #21)?

2 A. Well, I think (WITNESS #21) knew, but Andrew
3 didn't. I can't -- there might have been a -- I can't do
4 journal entries for monies. That's not what we do.

5 Q. Okay.

6 A. And I think I -- well, he -- it looks like
7 Andrew might have contacted me, but we don't do that.
8 It's somebody in Business Finance.

9 Q. Okay. Somebody in Business Finance?

10 A. Yes.

11 Q. All right. They are the people who would be
12 responsible for moving money from one thing to another?

13 A. Yeah.

14 Q. All right.

15 A. And that's happened, you know, several times.
16 This isn't an isolated one-time event.

17 Q. Is it common for people to expect you or when
18 you were supervising the clerical support system to do
19 things out of your class, out of your --

20 A. No. This isn't our job. We don't do it. We
21 send it to people. And I don't know how Business Finance
22 does it.

23 Q. I guess that was how I was trying to frame that
24 question. Is it common for people to ask you to try to
25 do things that are not within your job?

26 A. No.

1 Q. All right. And finally, let's go to 630. Do
2 you recognize 630?

3 A. Okay.

4 Q. Please tell us what we're looking at at 630.

5 A. So this is a notification, it looks like, from
6 (EMPLOYEE #16). A T-man went out on a regular patrol and
7 came across this work on this structure.

8 "It looks like it was done by a contractor last
9 year. We use proper connectors to avoid fire hazards."
10 And then he wrote "Shitty work."

11 Q. All right.

12 A. Which they generally don't do. I've never seen
13 it.

14 Q. So this box that is outlined in red in here,
15 what is this? Where does that work come from?

16 A. That's a corrective notification.

17 Q. Okay. So this is a notification. Is that part
18 of PG&E's computer system?

19 A. Yes.

20 Q. Is that in what is called the SAP system?

21 A. Yes.

22 Q. All right. And this is part of the business
23 records of PG&E?

24 A. Yes.

25 Q. And so Mr. (EMPLOYEE #16) has identified a
26 problem?

1 A. Yes, on his patrol. So he's doing -- or
2 inspection. He's probably doing a ground inspection.

3 Q. Okay. Is this the correct way for dealing with
4 such a problem?

5 A. Everything is perfect except for what's
6 highlighted in yellow, yes.

7 Q. Normally you wouldn't put --

8 A. No.

9 Q. But in terms of his reporting and everything?

10 A. Everything else is perfect on it.

11 Q. Okay. He created the notification?

12 A. Yes.

13 Q. And then it's put down as "Priority E."

14 A. Yes, which is a one-year tag.

15 Q. Okay. And that was created when?

16 A. It was created on September 12, 2017, with his
17 AMI mobile pick. That's the hand-held device like the
18 iPad.

19 Q. Okay. And then it has to be done by when?

20 A. 9/6/2018. One year.

21 Q. All right. And then you're reviewing this on
22 July 26, 2018?

23 A. Yes. So -- yes. I go through all the
24 corrective orders to make sure that all work has been
25 completed by the requirement end date.

26 Q. Had this work been completed?

1 A. No. Well, this tag right now in this picture
2 was not completed. I'm certain it was properly completed
3 before the end -- before 9/6 because we don't go over.

4 Q. What is the transmission line this is occurring
5 on?

6 A. It's the Hat Creek number 100 PIT number one.

7 Q. Do you know --

8 A. And it's structure 4/52.

9 Q. Do you know where that is located?

10 A. It's way up north. Like, I'm going to say
11 towards Burney, California. Like way up there. I know
12 PIT One is.

13 Q. Okay.

14 A. I don't know exactly where that line is located.

15 MR. NOEL: Okay. All right. Thank you. I have
16 nothing further.

17 Mr. Fogg.

18 MR. FOGG: A couple questions.

19 THE COURT REPORTER: Mr. Fogg, can you keep your
20 voice up best you can.

21 MR. FOGG: I'll try to speak as loudly as
22 Mr. Noel.

23 Could we go back to 629, Marc.

24 MR. NOEL: Sure.

25 **EXAMINATION**

26 BY MR. FOGG:

1 Q. So I want to go back to Exhibit 629, (WITNESS
2 #9). When there is a discussion of moving 100 K from
3 order to order, what does that mean?

4 A. So by looking at this without knowing it, I
5 think they probably had an expense order and maybe the
6 work became capital work.

7 Q. Is it common for orders to change like that?

8 A. Yes, it can be.

9 Q. Okay.

10 A. By the work that they went out to do, it might
11 have been worse and then they had to create a capital
12 order which is a three series number. So we want to take
13 it off of expense because now it's capital work.

14 Q. Could it have also been just a data entry error?
15 Somebody crunching the wrong numbers or something?

16 A. There could easily be a data error. And it
17 could have been from anybody at PG&E. It doesn't
18 necessarily mean just transmission line.

19 Q. And is \$100,000 an unusual amount for that kind
20 of error?

21 A. We don't do a lot of \$100,000, but it's not
22 abnormal.

23 Q. I want to jump back now to -- you had some
24 questions about a policy to notify the asset strategist
25 of some towers that were not there anymore.

26 Do you recall being questioned about that?

1 A. No.

2 Q. So we can go back a few exhibits. So going
3 back -- I think this is Exhibit 628. At the end of this
4 there is a discussion about a single wood pole to light
5 duty steel pole.

6 A. Okay.

7 Q. Is there a policy at PG&E that the team mentions
8 in the report that "Hey, these structures aren't there
9 anymore"?

10 A. Well, yes. The structures are still there based
11 on this e-mail. They're just not wood anymore. So
12 somebody has replaced them with steel.

13 Q. And so if a T-man sees a change that's not on
14 the object list, he needs to -- it's PG&E's policy to
15 report that?

16 A. Yes.

17 Q. Does that policy extend if there's a temporary
18 change in the line? So if there are temporary wood poles
19 put up and then they're later meant to be replaced by
20 metal poles?

21 A. I don't know. I haven't put up a lot of
22 temporary -- I haven't seen that so I can't really answer
23 for that. I don't know.

24 MR. FOGG: Thank you, (WITNESS #9). I don't
25 have any other questions.

26 THE WITNESS: You're welcome.

1 MR. NOEL: All right. Do the jurors have any
2 questions? It looks like we have at least three
3 questions. And we will review these real quick.

4 [Conferring off the record.]

5 **CONTINUED EXAMINATION**

6 BY MR. NOEL:

7 Q. All right. We have a couple of questions for
8 you from the jurors. And I will start with the easiest
9 one first.

10 A. Thank you.

11 Q. In the description that says "Transmission OH
12 Detailed Inspection," what is the OH in the description?

13 A. Overhead, overhead line. Or OH overhead.

14 Q. Now, as an asset maintenance planner did you or
15 anyone above you organizationally consider or propose
16 consideration of asset functional age as an inspection
17 trigger of any kind?

18 A. No. That's not -- our group doesn't do that.
19 So no.

20 Q. As an asset strategist are you aware of the age
21 of the assets that you're planning for?

22 A. I am not.

23 Q. Would it be fair to say that PG&E Business
24 Finance had the final determination as to how much time
25 will be budgeted for each inspection patrol conducted for
26 each structure during any given year?

1 A. Yes. That's a Business Finance job. When they
2 do the budget every year, they budget on what patrols and
3 inspections we have for the following year.

4 MR. NOEL: Okay. Thank you.

5 Anything further? Any follow-up?

6 All right. Madam Foreperson is going to read
7 you an admonition to you and then you'll be done.

8 GRAND JURY FOREPERSON: (WITNESS #9), you are
9 admonished not to discuss or disclose at any time outside
10 of this jury room the questions that have been asked of
11 you or your answers until authorized by this grand jury
12 or the Court. A violation of these instructions on your
13 part may be the basis for a charge against you of
14 contempt of court. This does not preclude you from
15 discussing your legal rights with your own attorney.

16 (WITNESS #9), what I have just said is a warning
17 not to discuss this case with anyone except the Court,
18 your lawyer, or the district attorney.

19 Do you have any questions?

20 THE WITNESS: I do not. Thank you.

21 GRAND JURY FOREPERSON: Okay. Thank you for
22 your time.

23 THE WITNESS: Okay. Thanks.

24 MR. NOEL: All right. Thank you, (WITNESS #9).

25 [Witness exits the courtroom.]

26 MR. NOEL: We've been going for an hour and a

1 half. So this is a good time for a break. And
2 hopefully, the last witness of the day is out there
3 waiting for us.

4 GRAND JURY FOREPERSON: Yes. Fifteen minutes.

5 [Recess taken from

6 2:44 until 3:04 p.m.]

7 GRAND JURY FOREPERSON: All members of the grand
8 jury are back. We are ready to proceed.

9 MR. NOEL: The next witness will be Dr. Keith
10 Casey.

11 [Witness enters the courtroom.]

12 MR. NOEL: Please stand up and she will swear
13 you in.

14 GRAND JURY FOREPERSON: Dr. Casey, do you
15 solemnly swear that the evidence you shall give in this
16 matter pending before the grand jury shall be the truth,
17 the whole truth, and nothing but the truth so help you
18 God?

19 THE WITNESS: I do.

20 GRAND JURY FOREPERSON: Thank you. Have a seat,
21 please.

22 **EXAMINATION**

23 BY MR. NOEL:

24 Q. For the record, can you please state your full
25 name spelling your last name.

26 A. Yeah. It's Keith Casey. Last name is

1 C-a-s-e-y.

2 Q. And you're a doctor or Ph.D.?

3 A. I am.

4 Q. And what is your Ph.D. in?

5 A. It's in environmental and resource economics
6 from U.S. Davis.

7 Q. Are you currently employed?

8 A. I am.

9 Q. By whom?

10 A. California Independent System Operator.

11 Q. Is there an acronym for that.

12 A. CAISO, C-A-I-S-O.

13 Q. What is the California Independent System
14 Operator?

15 A. The California Independent System Operator is a
16 private corporation that operates the high voltage power
17 grid for most of California. Not all of it but most of
18 it. It was created in 1997 as part of California's
19 efforts to restructure wholesale electric industry in
20 California.

21 And essentially what we did is we took over
22 operational control of the high voltage transmission
23 facilities from the three major utilities in California;
24 San Diego Gas & Electric, Southern California Edison, and
25 Pacific Gas & Electric.

26 Importantly, those utilities still operate and

1 maintain their transmission facilities, but we manage the
2 flow of power over the transmission lines. That's our
3 core function. In addition to that, we operate wholesale
4 electricity markets for energy and ancillary services.
5 And we also do long-term planning for the transmission
6 grid and we facilitate a process for generators that want
7 to interconnect to the transmission grid to actually be
8 able to physically connect to the grid.

9 And last but not least, as part of our duties
10 and as part of the legislation that created the ISO, it
11 called for developing transmission maintenance standards.
12 And we have a program established at the ISO where we've
13 developed those standards and we have a process for doing
14 review of transmission maintenance for the transmission
15 owners that are part of our operation.

16 But again, I'll stress the work. We are not a
17 state agency. We are not a regulator. We are a
18 nonprofit public benefit corporation. And I'll stop
19 there.

20 Q. How long have you been with CALISO?

21 A. Since its inception. So 22 years.

22 Q. All right. In front of you you have a binder
23 containing a document marked as People's -- or Exhibit
24 Number 609. See Exhibit 609?

25 A. I do.

26 Q. Do you recognize Exhibit 609?

1 A. Yes, I do.

2 Q. What is Exhibit 609?

3 A. Exhibit 609 is the amended and re-stated
4 transmission control agreement. And essentially, this is
5 the agreement where when California passed legislation
6 establishing the California ISO and directing the
7 utilities to turn over operational control of their
8 transmission facilities, this agreement was the vehicle
9 for enabling that turn over of transmission facilities.

10 So it basically at a high level summarizes what
11 the obligations are for the transmission owners as being
12 part of the California ISO as well as what the California
13 ISO's obligations are to them. It describes the process
14 for turning over transmission facilities. And
15 importantly, it also includes as a sub-element in this
16 agreement provisions around transmission maintenance
17 standards. That's a part of this agreement as well.

18 And I would just note this is a mutual
19 agreement. It's a contract between the ISO and the
20 transmission companies that joined the ISO.

21 Q. For some reason this is not showing up on the
22 board, and I'm trying to figure this out. I'm sorry.

23 All right. I am not sure why this is not
24 displaying on the screen.

25 GRAND JUROR NUMBER EIGHTEEN: You touched it.

26 MR. NOEL: I touched it, exactly.

1 BY MR. NOEL:

2 Q. So we're just going to have to go through it
3 without it being up on the screen.

4 So you kind of went through the basics of what
5 the Transmission Control Agreement is. And it's signed
6 by all of the various transmission -- or users of the
7 transmission system in the state of California?

8 A. All of the transmission owners that joined the
9 ISO and turned over operational control. So they have
10 all signed this document.

11 Q. Are there transmission owners in the state of
12 California that are not part of the ISO?

13 A. Yes, a couple of them. Examples would be SMUD,
14 Sacramento Municipal Utility District, and LADWP, Los
15 Angeles Department of Water and Power.

16 Q. All right. So I want to go through some
17 different things in it. And I wish we had it up on the
18 board for you.

19 But Subsection I "Under this agreement it is
20 made with reference to the following facts." And it
21 references Assembly Bill 1890.

22 Is that the legislation you talked about
23 earlier?

24 A. Yes.

25 Q. And what does that bill do?

26 A. The primary purpose of that bill was to

1 restructure the California electric industry in order to
2 increase competition in the provision of electricity.
3 And it called for, among other things, the formation of
4 the California Independent System Operator.

5 Q. All right. I will skip over to page 6, which is
6 Subsection X. And can you read us that section, please.

7 A. I can. I hope I have the right section.
8 Unfortunately, this does not have page numbers.

9 Q. Yeah, this is not easy not having the screen.

10 A. Yeah. But you can correct me if I've got the
11 wrong section. But it says "The parties' desire to enter
12 into this agreement in order to establish the terms and
13 conditions under which TOs --" that stands for
14 transmission operators "-- will become participating
15 transmission operators and how the ISO and each
16 participating transmission operator will discharge their
17 representative duties and responsibilities."

18 Q. Sorry. We're trying to figure this thing out.

19 A. Yep.

20 Q. Why didn't it do that when I did that before.
21 All right. So we finally got it back.

22 All right. So here we're talking about "The
23 parties' desire to enter into this agreement in order to
24 establish the terms and conditions."

25 When it talks about each of the CAISO and
26 participating TOs, and TOs is what?

1 A. Transmission operators. Transmission owners.
2 Excuse me.

3 Q. "-- and will discharge their representative
4 duties and responsibilities." Is that correct?

5 A. Yes.

6 Q. So both sides have duties and responsibilities
7 according to the agreement here?

8 A. Yes.

9 Q. Now we can skip ahead. I don't know why I'm
10 doing that. We will do it this way. Let's go to page 63
11 and Subsection 14: Maintenance standards.

12 A. I'm sorry. Are you in Appendix --

13 Q. No. We're not to Appendix C yet.

14 A. Okay.

15 Q. We can just use what's up on the board. We can
16 go through it.

17 So we're talking about maintenance standards.
18 And you started off a little bit earlier and said that
19 the legislation which created the ISO and set up the
20 program also created or expressed a desire for the ISO to
21 set up maintenance standards. Is that correct?

22 A. That's correct.

23 Q. Did I say that correctly?

24 Okay. So why are maintenance standards relevant
25 to the ISO?

26 A. The relevance of the maintenance standards to

1 the ISO deal primarily with ensuring the availability of
2 the transmission systems for operations. And if you read
3 the original legislation establishing the ISO AB 1890, it
4 talks about wanting to make sure that this electric
5 restructuring and turning over operational control to the
6 California ISO did not result in a degradation of the
7 ability of transmission facilities.

8 So I would say the primary motivation for
9 establishing the maintenance standards was to ensure that
10 the level of availability that had been available
11 historically was preserved going forward. And there were
12 also general provisions in there or general language
13 around ensuring a safe, reliable electric operation as
14 well.

15 Q. Right. So we have Section 14.1 up here. Can
16 you read us the section, please.

17 A. Yes. "Section 14.1: ISO Determination of
18 Standards. The ISO has adopted and shall maintain in
19 consultation with participating transmission owners
20 through the transmission maintenance coordination
21 committee in accordance with the requirements of this
22 agreement the standards for the maintenance, inspection,
23 repair, and replacement of transmission facilities under
24 its operational control in accordance with Appendix C.

25 These standards as set forth in Appendix C are
26 and shall be performance-based or prescriptive or both in

1 providing for high quality, safe, and reliable service
2 and shall take into account costs, local geography and
3 weather, applicable reliability criteria, national
4 electric industry practice, sound engineering judgment,
5 and experience."

6 Q. Great. So this sets forth the criteria that
7 you're going to be looking at to determine the
8 maintenance standards. Am I reading that correctly?

9 A. Yes. Section 14.2 gets at the primary measure
10 of maintenance standards which is the -- having metrics
11 around the availability of the transmission system for
12 each transmission owner and benchmarking that
13 availability against historical baseline.

14 Q. Okay. Now I want to skip to 66 and Section
15 17.2. Starting with 17.2.1 can you read us that section.

16 A. Yes. "17.2.1: Existing Maintenance Standards.
17 Each participating transmission owner shall provide to
18 the ISO as set forth in Appendix C hereto, one, the
19 participating transmission owner's standards for
20 inspection, maintenance, repair, and replacement of its
21 facilities under the ISO's operational control and, two,
22 information, notices, or reports regarding the
23 participating transmission owner's compliance with the
24 inspection, maintenance, repair, and replacement
25 standards set forth in Appendix C hereto."

26 Q. So they have to abide by the ISO's maintenance

1 standards and they also have to make available to you the
2 records showing that they're doing so. Is that --

3 A. Yes. What this section is getting at is item
4 one in this section is referring to what we call
5 maintenance practices. So each transmission owner is
6 obligated under this agreement to provide its maintenance
7 practices for transmission facilities. And then item two
8 is the -- what we refer to as the maintenance records,
9 which is the information we need to be able to assess how
10 well the transmission owners are following their
11 maintenance standards.

12 Q. Why is that information important to the ISO?

13 A. Well, it gets at really the objective of making
14 sure that the maintenance standards that they provide to
15 us are followed. So that is really the core purpose of
16 this provision or for getting this information.

17 Q. All right. So let's skip ahead here to the very
18 end. So the signature page. Signature page by PG&E. So
19 PG&E has signed this Transmission Control Agreement with
20 the ISO?

21 A. Yes.

22 Q. And by doing so they have bound themselves to
23 the terms and conditions of this agreement?

24 A. Yes.

25 Q. And then Transmission Control Agreement that
26 we're looking at itself, is that a business record kept

1 by the ISO?

2 A. Yes.

3 Q. Is that maintained -- required to be maintained
4 by the ISO?

5 A. I believe, yes.

6 Q. And is it kept in the regular course of business
7 at the ISO?

8 A. It is. And it's also published on our public
9 website.

10 Q. All right. So we have talked about some of the
11 issues in the agreement itself, but one of the things
12 that it talked about was Appendix C. So let's flip over
13 to Appendix C.

14 Oh, come on. Why did you do that? All right.
15 See Appendix C?

16 A. Yes.

17 Q. And Appendix C is titled "CAISO Transmission
18 Maintenance Standards." Correct?

19 A. Yes.

20 Q. So let's go through those maintenance standards.
21 The first section is definitions. Can you read me the
22 definition of maintenance.

23 A. Yes. "Maintenance: Maintenance as used herein
24 unless otherwise noted encompasses inspection,
25 assessment, maintenance, repair, and replacement
26 activities performed with respect to transmission

1 facilities."

2 Q. And maintenance practices. If you could read
3 that also.

4 A. "Maintenance Practices: A confidential
5 description of the methods used by a PTO and adopted by
6 the ISO for maintenance of that participating
7 transmission owners, transmission facilities."

8 Q. And these are the definitions -- the specific
9 definitions of terms that are used in the Transmission
10 Control Agreement; correct?

11 A. Yes.

12 Q. Next up is maintenance procedures. Could you
13 read us that.

14 A. "Maintenance Procedures: Documents developed by
15 the Transmission Maintenance Coordination Committee for
16 use by the ISO and the participating transmission owners
17 to facilitate compliance with the ISO Transmission
18 Maintenance Standards. These documents shall serve as
19 guidelines only."

20 Q. All right. Now, we want to move on to
21 Section 2, the introduction which is on the next page
22 at 165. Can you read us the introduction to --

23 A. Yes.

24 Q. -- Appendix C.

25 A. "This Appendix C delineates the ISO Transmission
26 Maintenance Standards and has been developed through a

1 lengthy consensus-building effort involving initially the
2 ISO Maintenance Standards Task Force and currently the
3 TMCC."

4 Q. And do you know or are familiar with what TMCC
5 is?

6 A. Yes. That is the Transmission Maintenance
7 Coordination Committee.

8 Q. And do you know who is on that committee?

9 A. That committee consists of representatives from
10 the transmission owners, from labor unions. There's a
11 representative from the California Public Utilities
12 Commission, California Energy Commission, and the
13 California ISO. There may be others, but those are some
14 of the main members.

15 Q. All right. Go ahead and go on with the
16 introduction. Might as well read the second paragraph.
17 Most of it's highlighted anyway.

18 A. "Flexibility in establishing these ISO
19 transmission maintenance standards is implicit in the
20 goal of optimizing maintenance across the system
21 characterized by diverse, environmental, and climatic
22 conditions, terrain, equipment, and design practices. To
23 provide for flexibility while ensuring the reasonableness
24 of each participating transmission owner's approach to
25 maintenance, each participating transmission owner will
26 prepare its own maintenance practices that shall be

1 consistent with the requirements of these ISO
2 Transmission Maintenance Standards.

3 The effectiveness of each participating
4 transmission owner's maintenance practices will be gauged
5 through the availability performance and monitoring
6 system. Each participate transmission owner's adherence
7 to its maintenance practices will be assessed through a
8 ISO review."

9 Q. So real briefly, effectiveness gauged through
10 availability performance, monitoring system. What does
11 that mean?

12 A. It means fundamentally that the approach that
13 was allowed under the legislation AB 1890 in their
14 approach that was adopted here was very much a
15 performance-based approach where the -- the entities that
16 established these maintenance provisions rather than
17 trying to have a prescriptive approach apply to each
18 transmission owner left it to each transmission owner to
19 develop their own maintenance practices and then with the
20 ultimate assessment of how well they're working being the
21 availability of performance monitoring.

22 So as long as the availability of their system
23 did not degrade under the ISO operation, the maintenance
24 practices would be viewed as being affective in
25 maintaining availability.

26 Of course, there are other aspects of the

1 maintenance review program such as the ISO's review of
2 each transmission owner's maintenance practices and the
3 annual review we do of their maintenance practices that
4 supplement this.

5 Q. Before we go on, I'll probably have you define
6 for us what you mean by availability or what the
7 Appendix C means by availability.

8 A. Yeah. It really gets to how frequent
9 transmission facilities are forced out of service. So --
10 and when they are forced out of service, meaning they're
11 not in operation, how long are they out as well as how
12 many facilities does a transmission owner have in a given
13 year that are never forced out of the service?

14 So it's really getting at the availability of
15 the transmission system to support reliability of the
16 power grid.

17 Q. And next it says "The PTO's adherence to its
18 maintenance practices will be assessed through a
19 California ISO review."

20 What does that mean?

21 A. We have an annual review process where the
22 maintenance practices that each transmission owner
23 provides to the ISO, we have a process for going out and
24 spot checking for a subset of the transmission
25 facilities, the records that the utility has for those
26 facilities to crosscheck, is the work that was actually

1 done on those facilities in that year consistent with
2 what their maintenance practices call for.

3 So we do that every year for a subset of
4 facilities. And in addition to doing the record review
5 for a subset, we also go out and do some field
6 inspections to look for indications that the maintenance
7 work that they indicated they did was actually performed.

8 Q. So in other words, you get the records saying
9 they painted a tower or painted this tower line and you
10 may go out and look at one or two towers to see if they
11 were freshly painted?

12 A. Yes.

13 Q. Or put your finger on it and find out the hard
14 way; right?

15 A. Right.

16 Q. All right. So let's move on to the objectives.
17 I think we've already covered the next paragraph there.

18 And it's section 2.1: The Objectives of
19 Appendix C. And if you can please read for us the
20 objectives, and we'll talk about them.

21 A. Sure. This Appendix C provides for a high
22 quality, safe, and reliable ISO controlled grid by
23 meeting the following objectives: Ensuring that the
24 availability of the performance levels inherent in the
25 transmission facilities are maintained, restoring
26 availability to the levels inherent to the transmission

1 facilities when degradation has occurred, economically
2 extending the useful life of the transmission facilities
3 while maintaining inherent levels of availability, and
4 achieving the aforementioned objectives at a minimum
5 reasonable total cost for maintenance with the intent of
6 minimizing customer impact.

7 Q. So working backwards what does it mean to keep
8 costs at a reasonable minimum intending to minimize
9 customer impact?

10 A. That last statement really gets at making sure
11 that maintenance is done in a cost-effective way to
12 manage the overall costs of the utility and, you know, in
13 an effort to, you know, really keep costs down and
14 keeping customer rates down. So there's a balance there
15 between, you know, being smart about how you undertake
16 maintenance practices to recognize that there needs to be
17 a balance with cost and how you approach maintenance
18 work.

19 Q. And above that "Economically extending the
20 useful life of the transmission facilities while
21 maintaining inherent levels of availability"?

22 A. That provision, I believe, gets at -- I think
23 this is in the spirit of cost savings where to the extent
24 proper maintenance can extend the useful economic life of
25 a transmission facility so it doesn't have to be
26 replaced, for instance, that there can be cost savings

1 with that provided that can be done in a way that
2 maintains the availability of the transmission system.

3 Q. So if you take care of it, it will continue to
4 work?

5 A. Basically, yes.

6 Q. All right. Now, let's go on to 2.2:
7 Availability. And in the middle of that middle paragraph
8 "Availability is a function of several variables
9 including transmission facility maintenance, initial
10 design, extreme exposure, capital improvements, and
11 improvements in restoration processes. It is important
12 to consider that maintenance is one of the many variables
13 that impact changes in availability."

14 Can you kind of explain that to us.

15 A. Yes. The other factors that would impact the
16 availability of a transmission facility could be its
17 initial design. If it was a poor design, it may suffer
18 from operation problems where it's forced out of service.
19 If it's in a location where it's subject to extreme
20 exposure like in a coastal area where there's a lot of
21 salt air and corrosion, that can exacerbate availability.

22 And the issue or the item on improvements and
23 restoration practices get out when you lose the facility
24 where it's no longer available, how quickly can you
25 restore it and get it back in service to minimize the
26 impact of it? So these are all other things that can

1 impact transmission availability in addition to
2 maintenance.

3 Q. All right. And dropping down to the next
4 paragraph "If maintenance is being performed by a PTO
5 consistent with good utility practice, increasing
6 maintenance activities by a significant order may not
7 result in a corresponding increase in availability. And
8 if maintenance is not performed consistent with the good
9 utility practice, availability may decline."

10 That was a mouthful. Can you explain to us what
11 it means.

12 A. The first provision around is if maintenance is
13 being performed with good utility practice, doing more of
14 it may not result in a corresponding increase in
15 availability. You really get that kind of concept of
16 diminishing a return where if you're already maintaining
17 your transmission facility very well, then you probably
18 already have a high level of availability and spending a
19 lot more on maintenance will not bring about a
20 commensurate amount of increase to availability.

21 So I guess an analogy would be if you maintain
22 your car really well, you change the oil every 3,000
23 miles, if you decide to change the oil every thousand
24 miles, you're probably not going to extend the life or
25 availability of your car. There's a certain point where
26 there's diminishing returns to additional maintenance

1 work.

2 And then the second item is that if a
3 transmission owner fails to perform maintenance on a
4 basis consistent with good utility practice -- oh, it
5 says "Unless the PTO fails to perform maintenance." It's
6 basically making the same point.

7 Q. Okay.

8 A. Yeah.

9 Q. We've gone over this. All right. On to the
10 next page. If you could read to us the paragraph of
11 variety of techniques.

12 A. Yes. "A variety of techniques can be used to
13 monitor maintenance effectiveness. However, techniques
14 that do not account for random variations in process have
15 severe limitation in that they may yield inconsistent
16 and/or erroneous assessments of maintenance
17 effectiveness. To account for random chance variations
18 while enabling the monitoring for shifts and trends,
19 control charts have been widely accepted and utilized.

20 Control charts are statistically data graphs
21 which illustrate both an expected range of performance
22 for particular process based on historical data and
23 discrete measure of recent performance.

24 The relative position of these discrete measures
25 of recent performance and their relationship to expected
26 range of performance are used to gauge maintenance

1 effectiveness."

2 Q. Am I reading this right that statistics will
3 show us how affective the maintenance is? Is that it?

4 A. I think a more accurate reading. And this is a
5 very confusing paragraph.

6 Q. That's why we have you here to explain it to us,
7 Doctor.

8 A. Okay. So at a very high level I mentioned that
9 the availability monitoring looks at the availability of
10 transmission facilities in a particular year relative to
11 a historical benchmark. And what this paragraph is
12 getting at is in establishing those historical
13 benchmarks, which is kind of a median level of
14 performance based on historical and then a bandwidth
15 around, you know, what is a reasonable range of deviation
16 from that?

17 There are statistical techniques employed to
18 establish both the -- what we call the center line, kind
19 of the expected performance level, and then the bandwidth
20 around that. So this paragraph is really getting at the
21 statistical techniques used to establish those
22 parameters.

23 Q. All right. Let's skip down to 2.3: Maintenance
24 Documentation Requirements. And if you could read that
25 to us, please.

26 A. "Two specific requirements regarding maintenance

1 documents are incorporated into these transmission
2 maintenance standards. First, these standards require
3 that each participating transmission owner develop and
4 submit a description of its maintenance practice to the
5 ISO. Second, these standards require that each
6 participating transmission owner retain maintenance
7 records as set forth in Section 6.1 of this Appendix C
8 and make those records available to the ISO as set forth
9 in the maintenance procedures in order to demonstrate
10 complies with each element of its maintenance practices."

11 Q. And next three at the bottom of that page.

12 A. "Facilities Covered by the ISO Transmission
13 Maintenance Standards: The ISO Transmission maintenance
14 standards set forth in this Appendix C shall apply to all
15 transmission facilities. Each participating transmission
16 owner shall maintenance its transmission facilities in
17 accordance with its maintenance practices as adopted by
18 the ISO in accordance with these ISO transmission
19 maintenance standards."

20 Q. So taking these last two together and the other
21 things that are in there, this contract covers all
22 maintenance assets basically. Maintenance facilities
23 with a participating transmission owner; correct?

24 A. I would characterize it as this covers the
25 transmission assets that were turned over to the ISO's
26 operational control. So there are facilities mostly at

1 the distribution level that are not part of the ISO's
2 control. So it does not pertain to those.

3 Q. And for all of those that are under the CAISO
4 control records must be kept and available?

5 A. Yes.

6 Q. How important is it to the ISO that those
7 maintenance records are complete and accurate?

8 A. It's very important. One of the functions we
9 perform is, as I mentioned, to go out and review their
10 maintenance practices for a subset of facilities. And
11 we're relying on accurate and complete records to
12 affectively assess whether the work that was actually
13 performed was consistent with what the filed maintenance
14 practices called for.

15 Q. Okay. Let's go to Section 5. And this is the
16 section entitled "Maintenance Practices." And if you
17 could read this introduction to the section, please.

18 A. "These ISO transmission maintenance standards as
19 they may be periodically revised in accordance with the
20 provisions of the Transmission Control Agreement and this
21 Appendix C and as they may be clarified by the
22 maintenance procedures shall be followed by each
23 participating transmission owner in preparing,
24 submitting, and amending its maintenance practices.

25 The maintenance practices will provide for
26 consideration of the criteria referenced in Section 14.1

1 of the TCA including facility importance."

2 Q. And what is Section 14.1 of the TCA?

3 A. That section we covered earlier.

4 Q. Okay. I guess a bad question. Maybe I should
5 put it this way. TCA is the abbreviation for
6 Transmission Control Agreement; right?

7 A. Correct.

8 Q. Okay. And that's what I meant. Section 14.1 is
9 the section that we talked about earlier in the
10 Transmission Control Agreement itself?

11 A. That's right.

12 Q. Okay. All right. Let's move on to 5.21.

13 A. "5.2.1: Transmission Line Circuit Maintenance.
14 As may be appropriate for the specific transmission line
15 circuits under the ISO's operation control, each
16 participating transmission owner's maintenance practices
17 shall describe the maintenance activities for the various
18 attributes listed below."

19 Q. And that's 5.2.1.1?

20 A. Which reads "Overhead transmission line patrols
21 and inspections scheduled and unscheduled."

22 Q. And it goes on and lists other things, but
23 that's the highlighted portion; correct?

24 A. Correct.

25 Q. All right. So your maintenance practices has
26 got to include this stuff? This is mandatory if you have

1 overhead transmission lines?

2 A. Yes, that's correct.

3 Q. Let's go to 5.2.3, Descriptions of Maintenance
4 Practices.

5 A. "Each participating transmission owner's
6 maintenance practices shall include a schedule for any
7 time-base maintenance activities and a description of
8 conditions that will initiate any performance-based
9 activities. The maintenance practices shall describe the
10 maintenance methods for each substantial type of
11 component and shall provide any checklists/report forms
12 which may be required for the activity.

13 Where appropriate the maintenance practices
14 shall provide criteria to be used to assess the condition
15 of a transmission facility. Where appropriate the
16 maintenance practices shall specify condition,
17 assessment, criteria, and the requisite response to each
18 condition as may be appropriate for each specific type of
19 component or feature of the transmission facility."

20 Q. All right. Below that 5.3.1.

21 A. "5.3.1, Initial Adoption of Maintenance
22 Practices. In conjunction with its application to become
23 a participating transmission owner, each prospective
24 participating transmission owner shall provide the ISO
25 with proposed maintenance practices which comply with the
26 requirements set forth in this Appendix C and

1 Section 14.1 of the Transmission Control Agreement.

2 This information shall provide sufficient detail
3 for the ISO to assess the proposed maintenance practices.
4 The ISO shall review the proposed maintenance practices
5 and may provide recommendations for an amendment."

6 Q. So the transmission owners must submit the
7 proposed maintenance practices to the ISO?

8 A. Yes.

9 Q. And when did the ISO begin again?

10 A. The ISO began operations in spring of 1998.

11 Q. Okay. So since 1998 since signing into the
12 Transmission Control Agreement, a transmission owner like
13 PG&E would have to submit their maintenance plans to the
14 ISO for both approval, review, and also to follow up; is
15 that correct?

16 A. Not entirely. First off, it's not their
17 maintenance plan. It's their maintenance practices.
18 They are required to submit their maintenance practices
19 to the ISO. The ISO does review the proposed practices
20 and provides recommendations, but we don't approve them.

21 Q. Okay. All right. Bad use of language.

22 The maintenance practices that are provided, is
23 there a name for that document?

24 A. Yes. They're referred to as the Transmission
25 Owner Maintenance Practice Overhead Electric Transmission
26 Lines.

1 Q. TOMP for short; correct?

2 A. Yes.

3 Q. Now, just a couple more and we'll get out of
4 this. Let's go to 5.3.2.1.

5 A. "Each PTO shall have in place maintenance
6 practices that have been adopted by the ISO set forth in
7 this Appendix C. The ISO shall periodically review each
8 PTO's maintenance practices having regard to the ISO
9 transmission maintenance standards and maintenance
10 procedures."

11 Q. And 5.3.2.2.

12 A. "5.3.2.2.: Amendments Proposed by a PTO. Each
13 PTO may provide to the ISO its own recommendation for an
14 amendment to its own maintenance practices by means of a
15 notice delivered in accordance with the Section 26.1 of
16 the Transmission Control Agreement."

17 Q. All right. So you can change your maintenance
18 practices just as long as you do it through us; correct?
19 Or inform us?

20 A. That is correct.

21 Q. Got it. Let's go on to six. And now we're up
22 to page 196 "Maintenance Record Keeping and Reporting."

23 A. "The minimum record retention period for the
24 transmission facilities subject to time-base scheduled
25 intervals shall be the designated maintenance cycle plus
26 two years. The minimum record retention period for all

1 transmission -- excuse me -- for all other transmission
2 facilities, maintenance activities identified through
3 inspection, assessment, diagnostic, or another process
4 shall be a minimum of two years after the completion
5 date."

6 Q. So stopping right there, in reality in terms of
7 numbers of years what is this requiring in terms of
8 record keeping?

9 A. Well, for facilities subject to maintenance that
10 is time-base such as they will inspect a transmission
11 facility every three years. The requirement for record
12 retention is -- the maintenance cycle is three years plus
13 we want every two years. So that would be five years.

14 For other types of maintenance activities that
15 are not time-base the record should be kept for a minimum
16 of two years after the date of completion.

17 Q. Okay. So if you're on a five-year inspection
18 schedule, then that would mean that all the records have
19 to be kept for at least seven years?

20 A. Yes.

21 Q. And we skipped over this, but the preamble to
22 this says "A PTO shall maintain and provide to the CAISO
23 records of its maintenance activities in accordance with
24 Section C." Correct?

25 A. Yes.

26 Q. So by signing into this agreement PG&E is

1 telling the ISO "We're going to keep these records and
2 make them available to you?"

3 A. Correct.

4 Q. So now dropping down to the next paragraph, a
5 PTO's maintenance records.

6 A. "A PTO's maintenance records shall at a minimum
7 include, one, the responsible person; two, maintenance
8 date; three, transmission facility; four, findings if
9 any; five, priority rating if any; and six, description
10 of the maintenance activity performed."

11 Q. All right. So in signing into this PG&E is
12 promising that their records are going to include the
13 reasonable -- or the responsible person; right?

14 A. Yes.

15 Q. What's the date of the maintenance. This has
16 got to be accurate; correct?

17 A. Yes.

18 Q. And then the responsible person accurate. It
19 doesn't make any difference if it's not accurate; right?

20 A. That's correct.

21 Q. And the facility what findings, priority
22 ratings, and a description of. All of that -- is any of
23 that information any good if it's not accurate?

24 A. It's not as good if it's not accurate. You may
25 be able to glean some things from it, but ideally you
26 would want all of this information to do a proper job of

1 assessing their maintenance practices.

2 Q. And how about if it's not complete?

3 A. Again, it really depends on the degree to which
4 it's not complete. You know, in terms of the level of
5 detail, in terms of the findings, if there's enough
6 information there that we can sort of intuit what was
7 done, that may be adequate. But if there's nothing on
8 findings, that's a real problem.

9 Q. And so when the ISO review teams are going out
10 to -- for instance, PG&E doing their site reviews, they
11 would be looking at the description of maintenance
12 activity performed and then going out to make sure that
13 that's what was actually done; correct?

14 A. Yes, for a subset of facilities that we
15 reviewed.

16 Q. So if the report for an inspection said "This
17 tower is great," they wouldn't necessarily be going out
18 to inspect that tower to make sure it's great; right?

19 A. Not necessarily. But if in the course of
20 inspecting that transmission circuit they saw an obvious
21 problem with the tower, they would record it in their
22 maintenance review. And PG&E would need to address it,
23 but it would have to be something very obvious.

24 Q. So let's go to 6.2, the maintenance reporting.

25 A. "6.2.: PTO Maintenance Reporting. Each PTO
26 will submit a standardized maintenance report as outlined

1 in the maintenance procedures. The ISO will accept at
2 the PTO's option a standardized maintenance report in
3 either electronic or paper form. If the PTO retains
4 records in a manner that includes additional information,
5 such records may be submitted in that manner. Each PTO
6 shall provide to the ISO maintenance records as described
7 in Section 6.1 and as set forth in maintenance
8 procedures."

9 Q. And then final 6.3.

10 A. "6.3.: ISO Visits to PTO Transmission
11 Facilities. The ISO may visit transmission facilities in
12 accordance with this Section 18.3 of the Transmission
13 Control Agreement to determine if the maintenance
14 practices are being followed by the PTO."

15 Q. And finally, let's move on to Appendix D which
16 is the definitions; correct?

17 A. Yes.

18 Q. And so any of the terms that are used in that --
19 in the Transmission Control Agreement or any of the
20 appendices will be defined.

21 So if we have questions as to the definitions,
22 this is where we'd go; correct?

23 A. That is correct with one notable exception that
24 I only discovered yesterday. And that relates to
25 Section 6.2 where the term "Standardized Maintenance
26 Report" is capitalized indicating it should be a defined

1 term in this document. But, in fact, when you go to
2 Appendix D, there is no definition for it. So that
3 appears to be an oversight in the documentation that I
4 just recently discovered.

5 Q. And that's a very good point I forgot to raise.
6 When we're talking about these different terms like you
7 pointed out "Standardized Maintenance Report" being
8 capitalized in the text of the section, you're saying
9 that that capitalization usually indicates that it's
10 going to be a defined term in Appendix D?

11 A. Yes.

12 Q. Great. All right. So that was fun. Two
13 hundred thirty pages. We didn't go through all of them,
14 but it may have seemed like it.

15 All right. Now, we're going to move on to our
16 other exhibit that's up there. You have a red or white
17 binder up there with you.

18 Now, we talked about the TOMP; the Transmission
19 Owner Maintenance Practices. So you should have in front
20 of you what's marked at the very front of that binder the
21 number one section of the binder Exhibit 609.

22 Do you see that?

23 A. I'm sorry. I see 610. So 609 I think was the
24 Transmission Control Agreement.

25 Q. Oh, you're right. I'm misreading this.
26 Exhibit 610. Thank you for catching that.

1 What is Exhibit 610?

2 A. Exhibit 610 is the Transmission Owner
3 Maintenance Practices overhead electric transmission
4 lines dated December 30, 1997.

5 Q. Is this the TOMP that is required by the
6 Transmission Control Agreement?

7 A. Yes.

8 Q. And what is the date of this TOMP?

9 A. December 30, 1997.

10 Q. And the submitting transmission owner?

11 A. Pacific Gas & Electric Company.

12 Q. Now, just to clarify here, this says submitted
13 December 30th, 1997. You said that the ISO actually came
14 into being in April of 1998 or in the spring of 1998.

15 A. Yes. We -- we effectively took over operation
16 and control on April 1, 1998, but there was a lot of work
17 being done in advance to prepare for that go-live date.
18 So preparation of these documents was really with
19 anticipation of the ISO going live. Actually, we were
20 supposed to go live with our operation in the fall of '97
21 and it got delayed to April '98.

22 Q. All right. So the ISO was actually in
23 existence. It had been created. It was just once you
24 were ready to take over and run the line or the system.

25 A. That's correct. We were standing up the
26 organization, hiring people, and building the

1 infrastructure and the systems that take over control.

2 Q. All right. And this TOMP from December 30,
3 1997, this is something that PG&E was required by the
4 Transmission Control Agreement to file with the ISO?

5 A. Yes.

6 Q. And is this maintained by the ISO in the regular
7 course of business?

8 A. Yes. I believe we keep all of the older
9 agreements on file.

10 Q. That's going to be the next question is does the
11 ISO routinely keep the records of the -- the historical
12 records of the TOMP?

13 A. I believe so, yes.

14 Q. Do you know if there's a duty to keep those
15 or --

16 A. I'm not sure.

17 Q. All right. So let's walk through the TOMP here,
18 please. We have the introduction section up.

19 A. Okay.

20 Q. Section one, if you could read that to us.

21 A. "This maintenance practice outlines the uniform
22 process to prioritize, inspect, and maintain Pacific Gas
23 & Electric Company overhead electrical transmission lines
24 placed under the control of the California Independent
25 System Operator. This document is prepared in accordance
26 with ISO maintenance standards identified as Appendix C

1 of the Transmission Control Agreement between the PG&E
2 and the ISO on the date such agreement is completed and
3 will be adopted by the ISO as an integral part of the ISO
4 maintenance standards.

5 Q. So the TCA is what we just got finished reading;
6 right?

7 A. Yes.

8 Q. Exhibit -- I've all of a sudden forgotten. 608?

9 A. It's 609.

10 Q. Exhibit 609. And Appendix C is the last part of
11 that where you could find their maintenance standards and
12 record keeping; correct?

13 A. Yes.

14 Q. All right. So go ahead and read the purpose of
15 the maintenance practice section two

16 A. "The purpose of the maintenance practice is to
17 provide for high quality, safe, and reliable service in
18 accordance with the requirements of California Assembly
19 Bill 1890. The PG&E overhead line inspection process is
20 designed to allow system inspection, frequency,
21 prioritization, identify component and element
22 criticality, determine the best position for visual
23 inspection of the various components, and provide a
24 consistent methodology for the types of inspection being
25 performed.

26 This practice incorporates reliability-centered

1 maintenance philosophies and continues to be consistent
2 with California General Order 95, (G.O. 95), Rule 31.2."

3 Q. Are you familiar with the term
4 "reliability-centered maintenance"?

5 A. No, I'm not.

6 Q. Okay. And then we have the next section of the
7 TOMP is a definition of terms section three. And there's
8 one term I'd like to focus on, and that is the term
9 "Inspector." If you could find that and read it for us.

10 A. Yes. "Inspector: PG&E employed inspector
11 commonly referred to as a troubleman."

12 Q. Pretty succinct and to the point definition.

13 All right. Now, we're getting into inspections.
14 Now, this is what PG&E filed with the ISO in 1997
15 representing this was their inspection and maintenance
16 practices at that time; correct?

17 A. Yes.

18 Q. So Section 5: Inspection. If you could read us
19 the start of subsection A.

20 A. "Subsection A: Establishment of Inspection
21 Frequency. System priority ranking will establish the
22 minimum system inspection frequency. PG&E transmission
23 line supervisors will develop a prioritized ranking of
24 the systems they're accountable for inspecting and
25 maintaining. The ranking considers age of the system,
26 number and type of customers on the system, surrounding

1 geography and environment, accessibility, impact of
2 system failure on the transmission grid and historical
3 performance.

4 A priority ranking of one (highest) is assigned
5 to the most critical systems of the transmission grid, a
6 priority ranking of two is assigned to less critical
7 systems, and a priority ranking of three (lowest) is
8 assigned to the least critical systems on the
9 transmission grid."

10 Q. And then below that there's a -- we're going to
11 skip over the next couple of paragraphs. But there's a
12 handwritten note. It looks like an arrow and it says
13 "Should be D." Do you know where that came from?

14 A. I'm not sure who made the note, but I believe
15 there was an error in the referenced appendix where the
16 table was being referred to in that paragraph should be
17 Appendix D as opposed to Appendix A.

18 Q. So this is an old-fashioned grammar check;
19 right?

20 A. Yes, I believe so.

21 Q. All right. Now, I want to go to Table One,
22 Inspection Frequency and Priority. You see that?

23 A. Yes.

24 Q. And we talked about the priority up above. And
25 we have priority rankings one, two, and three.

26 Can you read for us out of there what the

1 inspection frequency would be for a priority ranking one
2 system.

3 A. For a priority ranking one facility the aerial
4 inspection frequency would be every 12 months, ground
5 inspection frequency would be every 12 months, and a
6 climbing inspection would be as triggered.

7 Q. And priority ranking two.

8 A. For a priority ranking two facility the aerial
9 inspection would be every 24 months, ground inspection
10 would be every 24 months, and climbing inspection would
11 be as triggered.

12 Q. And priority number three.

13 A. For priority ranking three transmission facility
14 aerial inspection would be every 36 months, ground
15 inspection every 36 months, and climbing inspection as
16 triggered.

17 Q. And going on "Transmission line supervisors are
18 to consider staggering aerial and ground inspections at
19 intervals of one-half the recommended frequency."

20 Do you see that paragraph?

21 A. I do.

22 Q. Do you understand what that means?

23 A. Not entirely. I think what it's getting at is
24 that rather than doing aerial and ground inspections at
25 the same time, you would stagger them. So every
26 12 months you're doing an aerial inspection. Say, June

1 to June but every January to January you'd be doing a
2 ground inspection. So essentially you're having eyes on
3 the facility every six months as opposed to every
4 12 months.

5 Q. Right.

6 A. That's my belief in what this means.

7 Q. So according to this, back in 1997 or at least
8 December of 1997 if it was a priority one system, it was
9 being inspected both by land and by air every year?

10 A. Correct.

11 Q. If it's a priority two system, it's basically
12 rotating according to this next paragraph underneath.
13 But aerial inspection one year, ground inspection the
14 next, then back to aerial and then back to ground. So
15 it's basically rotating every year for priority two?

16 A. I think it was the -- the recommendation below
17 that table, but it simply says "are to consider." So
18 it's not required under the procedures.

19 Q. And then if you were priority three, it's every
20 three years or at least some type of inspection
21 potentially every 18 months?

22 A. Correct.

23 Q. Okay. And one other thing. In this -- this
24 doesn't differentiate between aerial patrol or aerial --
25 or ground inspection or climbing inspection. It uses the
26 term "inspection" for everything.

1 A. That is correct.

2 Q. Now, we have a definition in here of triggers.
3 And according to what PG&E is telling you are triggers,
4 that would bring about -- potentially bring about
5 climbing inspections. And what does PG&E list?

6 A. "Triggers included --" excuse me. "Triggers
7 included but are not limited to the following: Component
8 failure (like components) or proven defective by
9 testing."

10 Q. Let me stop you there. What -- how do you
11 interpret this first section "Component failure or like
12 components"?

13 A. Well, component failure would be, you know,
14 something broke, and it was obvious from an inspection
15 either from aerial or ground. "Like components." I'm
16 not entirely sure what they're referring to in the
17 parameter there.

18 Q. So if you had a whole bunch of towers that were
19 all built identically and the same components on each and
20 if a component on one tower broke, would you expect under
21 this agreement or under this practice that PG&E would
22 inspect the other towers -- the like components on the
23 other towers to make sure the same problem didn't happen?

24 A. Yep. I think that is likely. And now that
25 you've said that, I think like components would mean if a
26 component failed on a particular tower, if you knew the

1 other towers had similar components, that could trigger a
2 climbing inspection of those towers as well.

3 Q. Okay. And this is specifically -- this is the
4 PG&E's maintenance practices that they're representing to
5 the ISO they're using; correct?

6 A. Correct.

7 Q. All right. Let's jump down now to B, the
8 inspection methods. And that defines what inspection
9 methods PG&E was representing they were doing; correct?

10 A. Yes.

11 Q. And could you please read those for us.

12 A. "Inspection Methodologies. Number one, ground
13 inspections. Ground inspections are performed in such a
14 manner and at the optimal location as to inspect the
15 components listed under table two, inspection sequence
16 for components, ground inspection (below ten-foot level),
17 period.

18 Number two, claiming inspections. Climbing
19 inspections on the supporting structure are performed in
20 such a manner as to inspect the components listed under
21 table two, inspection sequence for components, climbing
22 inspection, (above ten-foot level), period.

23 Number three, aerial inspections. Aerial
24 inspections are performed from aircraft in such a manner
25 as to inspect the components listed under table two,
26 inspect sequence for components, aerial inspection,

1 period."

2 Q. All right. The next section is C, components
3 inspected. And that's where we find Table Two that is
4 referred to in all three of those definitions; right?

5 A. Yes.

6 Q. And we pulled up Table Two. And what is Table
7 Two?

8 A. Table Two lists the inspection sequence for
9 components by type of inspection starting with aerial
10 inspection. The components included insulators and
11 hardware, conductor fittings, conductor, right-of-way
12 encroachments.

13 For climbing inspection above ten foot level the
14 components include structures and guys, insulators and
15 hardware, conductor and fittings, overhead ground wire,
16 switches, and associated elements.

17 For ground inspection below the ten-foot level
18 components include right-of-way access, foundations,
19 anchors and guys, structures, arm braces, insulators and
20 hardware, conductor and fittings, electrical clearances,
21 and switches and associated elements.

22 Q. All right. Now going down to E, internal data
23 collection and reporting. At this point, PG&E is telling
24 the ISO that we have a system for accurately saving and
25 collecting all of this data; correct?

26 A. Yes.

1 Q. And please read to us what it says.

2 A. "Inspection reports are developed and recorded
3 using a PG&E owned and designed computer software program
4 titled "Overhead Line Inspection; OLI." Initially stored
5 on personal computers, inspection reports are later
6 downloaded in an electronic database accessible to the
7 authorized users. The inspection report is comprised of
8 four folders labeled "Line, segments, structures, and
9 inspections." A sample of the inspection report is
10 contained in Appendix B.

11 Q. And then it goes on. There's six summarizing
12 reports in use in OLI. And briefly, if you could just
13 name us the six reports to identify for the ISO.

14 A. Yes. The six summarizing reports used in OLI
15 are, one, inspection status of line; two, work required;
16 three, inspection due; four, work overdue; five, line
17 criticality by segment; and six, vegetation reports.

18 Q. All right. So let's skip ahead here to Table
19 Three. Let's go ahead and go by this. And I want to go
20 down to Appendix D. This is the appendix that we were
21 talking about earlier.

22 And in the appendix is the overhead transmission
23 lines and the inspection frequency checklists.

24 Do you see that?

25 A. Yes. I am recalling the confusion as I believe
26 we had two Appendices D in this document.

1 Q. Yes. Sorry about that.

2 A. That's all right. So, yes, I see the Appendix D
3 you are referring to.

4 Q. Okay. And going back to where we were up above
5 when we were talking about determining the priority of
6 the control cycles or inspection cycles, we talked about
7 frequency checklists. Is that the frequency checklist?

8 A. Yes.

9 Q. And some of the things that PG&E indicated to
10 the ISO at least in 1997 that they were looking at to
11 make decisions as to how frequently they should inspect
12 their lines included age of system; correct?

13 A. Yes.

14 Q. And they break that down by greater than
15 30 years, greater than 50 years, or greater than
16 70 years; correct?

17 A. Correct.

18 Q. Adverse terrain?

19 A. Correct.

20 Q. Extreme weather conditions?

21 A. Correct.

22 Q. And accessibility --

23 A. Correct.

24 Q. -- is another factor?

25 These are all factors that PG&E represented that
26 they are using to determine how frequently they should

1 inspect these things?

2 A. That's correct.

3 Q. Structures down would be another one?

4 A. Yes.

5 Q. Critical component problems reported is another?

6 A. Yes.

7 Q. All right. So now I want to move on. Let's go
8 to Appendix C in here. Do you see Appendix C?

9 A. Yes.

10 Q. Do you understand what Appendix C is?

11 A. If you bear with me one moment, I think we again
12 suffer from the --

13 Q. Exactly.

14 A. -- multiple appendices.

15 Q. It should be on page 19.

16 A. Yes, I see it now.

17 Q. I was trying to figure out what this refers to
18 because it lists things like salt, fog, and warthogs.

19 A. I'm afraid I don't know what those are referring
20 to.

21 Q. All right. And finally going on to Appendix D.

22 A. The second Appendix D?

23 Q. The second Appendix D. And one of the things
24 that caught my eye on this that is highlighted up on the
25 big board is it refers to cold-end use for insulators and
26 hardware; correct?

1 A. Yes.

2 Q. All right. So this is what PG&E was telling the
3 ISO in December of 1997. "These are our maintenance
4 practices and reporting requirements." Correct?

5 A. Yes.

6 Q. All right. So let's go on to the next in line,
7 which should be number 611. Now, just to make sure we
8 understand, is there any requirement that the
9 transmission owners file a new TOMP every year?

10 A. No.

11 Q. How often are transmission owners supposed to
12 file a new TOMP?

13 A. There is no fixed time requirement. It's
14 really -- it's just any time they need to make changes to
15 it, they would file those amendments for our review.

16 Q. So in 1999 PG&E wanted to make changes to their
17 TOMP; is that correct?

18 A. Yes.

19 Q. And the changes were all related to the
20 vegetation management which really wasn't addressed in
21 the original TOMP; correct?

22 A. That is correct other than very limited
23 reference to vegetation right-of-way maintenance, but
24 there wasn't a lot of detail. So I think the intent of
25 this amendment was to provide more details.

26 Q. And that is -- Exhibit 611 is PG&E's supplement

1 to the TOMP dealing with vegetation management?

2 A. Yes.

3 Q. And this again is kept as a business record at
4 CAISO?

5 A. Yes.

6 Q. And it's kept in the normal course of business?

7 A. That is my understanding, yes.

8 Q. All right. And this was filed on August 6th of
9 1999?

10 A. Yes.

11 Q. Now, we're going to kind of skip through here.
12 We have highlighted a bunch of stuff in here but kind of
13 a discussion in here we want to get to is the differences
14 and the interplay between the Public Resources Code
15 Section 4292 and Public Resources Code Section 4296.

16 You see that in I believe --

17 A. Page 6.

18 Q. Yeah, starting on page 6.

19 A. Yes, I do.

20 Q. And it cites 4292?

21 A. Yes.

22 Q. Now, I'm going to go back over here, and I'm
23 going to pull this up. And here we have 4292.

24 Are you familiar with code section 4292?

25 A. I have read it, yes.

26 Q. All right. And 4292 says "Except as otherwise

1 provided in 4296." And then down below there we have
2 4296.

3 A. Yes.

4 Q. Now, the one thing I wanted to bring up is do
5 you know individually by lines if 4292 is applicable?

6 A. I'm sorry. Which one?

7 Q. 4292. Is that -- well, let's start off with is
8 4292 applicable to all transmission lines?

9 A. My understanding -- and I'm not an expert on the
10 particulars here, but it is applicable to some of the
11 transmission lines. But I don't believe it covers all of
12 them. It kind of clarifies the types of structures that
13 this would pertain to.

14 Q. Right. It would be any pole or tower which
15 supports a switch, fuse, transformer, lightening
16 arrester, line junction, dead end, corner pole, fire
17 break, and on and on and on?

18 A. Yes.

19 Q. So if the line or the tower itself includes
20 those things, 4292 applies. If not, it doesn't?

21 A. Correct.

22 Q. And even if 4292 applies but it's less than
23 750 -- or 750 volts or less, 4296 would exempt it?

24 A. Correct.

25 Q. All right. Okay. So we just want to make sure
26 that's clear with 611. Let's move on to 612.

1 A. Okay.

2 Q. You have 612 in front of you?

3 A. Yes, I do.

4 Q. Do you recognize 612?

5 A. Yes, I do.

6 Q. What is 612?

7 A. Exhibit 612 is the Transmission Owner
8 Maintenance Practices for overhead electric transmission
9 lines for Pacific Gas & Electric which were adopted in
10 January of 2002.

11 Q. Okay. So now we're in 2002 and PG&E is changing
12 their maintenance practices or at least changing
13 something in their maintenance practices?

14 A. Correct.

15 Q. So they file with the ISO a new updated
16 Transmission Owner Maintenance Practices?

17 A. Yes.

18 Q. And one of the interesting things that starts --
19 and it's neither here nor there but really starts popping
20 up on this is this proprietary and confidential note on
21 the top.

22 Are you familiar with that?

23 A. Yes, I am.

24 Q. Any idea why the maintenance practices would be
25 proprietary and confidential?

26 A. Not specifically other than the definition of

1 the transmission maintenance practices in the
2 Transmission Control Agreement refers to them as
3 confidential documents.

4 As you noted in the prior maintenance practices,
5 there was no notations on the practices that they were
6 confidential, but they started it in 2002. So I don't
7 know what motivated them to make the change other than
8 maybe this was a housekeeping correction that they
9 applied going forward.

10 Q. All right. Now, let's go down. And we're going
11 to start off just like we did before. We have a lot more
12 table of contents here and we have a lot longer
13 introductions than we had before.

14 A. Yes, I have it.

15 Q. So there's stuff here that we haven't had
16 before. Can you start with the PG&E electrical overhead.

17 A. "The PG&E Electrical Overhead Transmission Line
18 Inspection and Maintenance Program incorporates both the
19 preventative maintenance as well as corrective
20 maintenance. Preventative maintenance is a scheduled
21 inspection or maintenance of transmission line components
22 and their elements at specific points in time to retain
23 functionality.

24 Corrective maintenance is the immediate response
25 to failed components and their elements to restore
26 functional capabilities."

1 Q. Go on.

2 A. "This maintenance practice provides flexibility
3 for adjustment to local conditions based on local
4 triggers, experience, and sound judgement. Trigger
5 examples may include substantially different local
6 environment conditions or local activities near lines
7 such as construction projects."

8 Q. And go on to purpose. And let's see what we got
9 here. All right. Another change.

10 Now, we have a definition of inspection.
11 Remember in the first one we had a definition of an
12 inspector. Now we have a definition of inspector --
13 inspection but no definition of inspector here.

14 How does PG&E define an inspection?

15 A. An inspection is a detailed visual observation
16 of the facility installed looking for abnormal conditions
17 that will negatively impact safety, reliability, or asset
18 life. In an inspection individual pieces of equipment
19 and structures are carefully examined through visual
20 and/or the use of routine diagnostic tests and the
21 condition of each is graded and/or recorded. This
22 inspection can be performed by air, foot, or climbing as
23 conditions dictate."

24 Q. So we also have an added definition of trigger.
25 Can you read that for us.

26 A. "Trigger: A condition that requires inspection

1 and/or maintenance of a component at a frequency
2 different than the intervals determined by the line
3 prioritization or condition assessment."

4 Q. And next the definition of "qualified company
5 representative."

6 A. "A person who by reason of training and work
7 experience is able to complete an accurate assessment of
8 the electric transmission facilities that he/she is asked
9 to inspect."

10 Q. All right. So now let's skip ahead. Let's go
11 to Table 5.1. We've got some changes, it looks like, to
12 the minimum circuit priority ranking table that we had
13 before.

14 A. Okay. I see it.

15 Q. All right. And what now in 2002 is PG&E using
16 for ranking?

17 A. PG&E is using for a high impact priority one
18 ranking. The number of boxes checked on certain
19 inspection is greater than 14. For a medium impact
20 priority two ranking. The number of boxes checked on the
21 circuit inspection frequency checklist is 6 to 14. And
22 for a priority three low impact ranking. The number of
23 boxes checked on circuit inspection frequency checklist
24 is less than six.

25 Q. All right. So now we're going to talk about the
26 frequency. And we remember what the frequencies were

1 before. What, according to Table 5.2, are the
2 frequencies now in 2002?

3 A. "For a circuit priority ranking one high impact,
4 the ground inspection frequency is once every year,
5 aerial inspection frequency is once every year, climbing
6 inspection as triggered by condition.

7 For circuit priority ranking two medium impact,
8 ground inspection frequency is once every two years,
9 aerial inspection frequency is once every two years, and
10 climbing inspection is as triggered by condition.

11 For circuit priority ranking three low impact,
12 ground inspection frequency is once every three years,
13 aerial inspection frequency is once every three years,
14 and climbing inspection as triggered by condition."

15 Q. Okay. So some changes now in the inspection
16 frequency but not really anything major. Is that about
17 correct?

18 A. That is my perspective, yes.

19 Q. Before we had 36 months or 24 months or
20 12 months. Now we have years. We used to have priority
21 one, two, and three. Now we have high, medium, and low
22 impact but nothing else.

23 One of the other things in comparison from the
24 two that looks to me is we have this term "as triggered."
25 In the 1998/1997 TOMP wasn't there a lengthy definition
26 underneath 5.1 of "triggered"? What constituted as

1 triggered?

2 A. I would have to look at that to confirm that.

3 Q. I think it's back this way still. Yeah, there's
4 Table One.

5 A. Yeah. So it's in the 19 -- 1997 Transmission
6 Order Maintenance Practices for PG&E on the section on
7 page 4 that talks about triggers. They list a number of
8 possible triggers indicating it's not limited to them,
9 but there is a list of specific types of triggers.

10 Q. And in the '97 table which shows the frequency
11 intervals for inspections as Table One. Now in 2002 it's
12 Table 5.2. Is that about right?

13 A. Yes, that is correct.

14 Q. All right. Now we have 5.1.1.3 Ground
15 Inspections. And if you could read us the first half of
16 this, please.

17 A. "Ground Inspections: Ground inspections are
18 performed in such a manner in an optimal location as to
19 inspect the components listed in Table 5.3. And Table
20 5.3 for ground inspection components include right-of-way
21 access, structures, conductors and fittings, foundations,
22 arm braces, electrical clearances, anchors and guys,
23 insulators and hardware, and switches and associated
24 elements."

25 It goes on to say "A ground inspection of
26 overhead electric transmission facilities is a detailed

1 visual ground-based observation of the facilities
2 installed looking for abnormal conditions that may
3 negatively impact safety, liability, or asset life."

4 Q. So in 2002 PG&E is telling the ISO that when you
5 do a ground inspection, we're going out and we're looking
6 at right-of-way, structures, the conductor, and all of
7 its fittings; correct?

8 A. Yes.

9 Q. The foundations, the arms and braces, and the
10 electrical clearances?

11 A. Yes.

12 Q. And the anchors and guys, insulators and
13 hardware, and switches and associated elements?

14 A. Yes.

15 Q. So what's being represented to the ISO under the
16 TCA is this is the level that we're doing when we do a
17 ground inspection?

18 A. Correct.

19 Q. Now we go on and we have Table 5.4. It talks
20 about element codes and descriptions. You see that?
21 This is part of your TOMP?

22 A. Yes, I do.

23 Q. One of those is AG05 which, according to its
24 description, is attachment hardware. And we have more,
25 lots more.

26 All right. Now, we get to 5.1.1.4 which is now

1 the definition of aerial inspection. And if you could
2 read us the definition of aerial inspection.

3 A. "Aerial inspections are performed from aircraft
4 in such as manner and at optimal locations as to inspect
5 the components listed in Table 56. Table 56 lists the
6 following components for aerial inspections: Insulators
7 and hardware, right-of-way encroachments, conductor
8 fittings, conductor."

9 And it goes on to say "An aerial inspection of
10 overhead transmission facilities is a detailed visual
11 aerial-based observation of the facilities installed
12 looking for abnormal conditions that may negatively
13 impact safety, reliability, or asset life."

14 Q. So in this TOMP PG&E is asserting to the ISO
15 that their aerial inspections are being done so that they
16 can look at all of these individual components and find
17 problems. Is that correct?

18 A. Correct.

19 Q. And then we have 5.1.1.5 Climbing Inspections.
20 If you can read that for us.

21 A. "Climbing inspections are performed from the
22 supporting structure in such a manner as to inspect the
23 components listed in Table 57. Table 57 lists the
24 following components for climbing inspections:
25 Structures and guys, overhead ground wire, insulators and
26 hardware, switches and associated elements, conductors

1 and fittings."

2 This section goes on to say "A climbing
3 inspection of overhead transmission facilities is a
4 detailed visual supporting structure-based observation of
5 the facilities installed looking for abnormal conditions
6 that may negatively impact safety, reliability, or asset
7 life. Routine climbing inspections is triggered by
8 condition."

9 Q. Thank you.

10 Okay. A couple more things to go over in this.
11 We have non-routine inspections 5.2., 5.2.1.

12 A. So Section 5.2.1 is titled "Circuit."
13 Non-routine circuit inspection is triggered by condition.
14 During routine ground or aerial inspections, specific
15 conditions or inspection findings may trigger a
16 non-routine inspection or a climbing inspection.
17 Triggers include but are not limited to component failure
18 or components proven defective by testing, wire structure
19 strength, fire burned area or area of high fire hazard,
20 component failures caused by natural disasters or storms,
21 third-party observations and/or complaints, marginal
22 capability components of a re-rated circuit segment, and
23 known recurring conditions that jeopardize the circuit
24 integrity."

25 Q. Does this description sound familiar? Does this
26 passage sound familiar to you?

1 A. It sounds very familiar to the triggers they
2 listed in their 1997 Transmission Maintenance Practices.

3 Q. Right. In 1997 it was listed at the very
4 beginning under the -- the -- basically the schedule that
5 Table One, which that is off the -- what's the term I'm
6 looking for? -- cycle of inspections; correct?

7 A. Yes.

8 Q. And now we have it and it's now moved back in
9 and it's now part of the non-routine inspections;
10 correct?

11 A. That's correct.

12 Q. All right. Let's go on. We don't need to -- we
13 can go ahead and skip over some of the vegetation
14 management stuff.

15 We have repair and response codes in here;
16 correct? In Table 6.1?

17 A. Yes.

18 Q. And this indicates how long they have to do a
19 repair or respond to a condition?

20 A. That's correct.

21 Q. And then could you read 6.3.

22 A. 6.3 is titled "Repair, response, reassessment.
23 PG&E will make every effort to correct identified
24 abnormal conditions by the established due date. It will
25 not be general or routine practice to re-asses items for
26 the sole purpose of deferring necessary work. Any

1 reassessments will have sound business or technical
2 supporting reasons and documentation. Factors which may
3 drive the reassessment of scheduled work include but are
4 not limited to the inability to obtain clearances,
5 material, access, storms and weather, or subsequent
6 testing or re-evaluation of the actual condition.

7 A revised completion date will be established
8 appropriate to the current field conditions. The revised
9 completion date as with the original assigned completion
10 date will take into account minimizing the potential for
11 hazards to third parties, PG&E employees, or property or
12 risk to the reliability of the electric system.

13 Updated information on the condition of the
14 facility will be used in any reassessment of the required
15 completion date. Documentation shall consist of but not
16 limited to clearance requests, clearance denials, event
17 reports, storm reports, updated information on
18 conditions, access refusal letter from property owner or
19 regulatory agency, et cetera. This documentation will
20 support the reason for the work schedule reassignment."

21 Q. Can you explain this paragraph to us, your
22 understanding of this paragraph.

23 A. My understanding of this paragraph is that it's
24 basically stating that as a general matter there have to
25 be special conditions for deferring identifying necessary
26 work. And the paragraph provides samples of those. But

1 if I had to characterize them generally, it's things that
2 are somewhat outside the control of PG&E.

3 For example, the inability to obtain clearances.
4 What that's referring to is if they need to take a
5 transmission line out of service to do maintenance work,
6 they need to get approval from the ISO that it's okay for
7 them to take it out.

8 If they don't have access to the material
9 because of things outside of their control or weather is
10 prohibiting them from accessing the site to do the repair
11 work, these are the kinds of extraneous things that would
12 be permissible for deferring necessary work. But it's
13 not simply because of resource constraints or they're
14 just too busy.

15 Q. Right. Or just because they don't feel like
16 doing it.

17 A. Correct.

18 Q. So, for instance, if they -- if PG&E were to
19 identify a defective component on transmission lines and
20 that gets put down to be replaced and replaced within
21 24 months, under this section PG&E is telling the ISO
22 that "If we defer that, if we push that back another two
23 years and another two years, we'll have good documented
24 reason to do so." Correct?

25 A. That is what this paragraph is indicating.

26 Q. Okay. All right. I don't think we need to

1 worry about any of this (indicating).

2 Okay. Finally, let's go down to section eight,
3 record keeping. Do you see that section?

4 A. Yes, I do.

5 Q. And does this section match up to record keeping
6 requirements of the Transmission Control Agreement?

7 A. I believe what's being described here is
8 consistent with what's required under the Transmission
9 Control Agreement.

10 Q. Now, one of the other things that was
11 interesting about the change as we're talking in the 1997
12 TOMP, they were talking about a computer system and then
13 all the -- the -- what was it? The overhead line
14 inspection database or something.

15 A. Yes. Something like that, yes.

16 Q. That kind of gets dropped here in 2002; right?

17 A. Yes. It seems they're referring to a different
18 name. They call it the SAP Work Management Overhead
19 Transmission Line Inspection. Or I guess they call it
20 the SAP Work Management Database.

21 Q. Okay. So they changed computer systems again or
22 they changed computer systems also?

23 A. It would appear to be the case.

24 Q. All right. So now we go back to the priority
25 chart where we're determining the frequency with which
26 they have to inspect and the type of inspection.

1 Now, we're at attachment one, the circuit
2 inspection frequency checklist. Do you see that?

3 A. Yes.

4 Q. And according to what we read, this is what they
5 go through to determine what priority the transmission
6 line is for inspection?

7 A. Yes.

8 Q. And some of the things that they look at on
9 here, again we've got the age of the system?

10 A. Yes.

11 Q. We've got the geographic conditions including
12 adverse terrain or extreme weather?

13 A. Yes.

14 Q. We've got accessibility?

15 A. Yes.

16 Q. And as the -- I forgot to ask you on the earlier
17 one. Up above where it says "transmission customers,"
18 what does it mean to be metered transmission service or
19 radial feed?

20 A. I am speculating a bit, but I think a metered
21 transmission service my might be a customer who's
22 receiving service directly from the transmission facility
23 itself as opposed to at a distribution level, which would
24 be a lower voltage.

25 Radial feed means simply that the transmission
26 is, you know, a single circuit to its customer. There

1 isn't a second circuit. There is only one circuit to
2 that customer. And distribution substation with major
3 customer load just indicates that, you know, that's a big
4 facility. And if that failed, there would be a lot of
5 customers impacted by it.

6 Q. All right. Now we're already past 4:30 so we've
7 got to speed it up. So let's go on finally to 613. Do
8 you see 613 there?

9 A. Yes, I do.

10 Q. And what is 613?

11 A. Exhibit 613 is the ISO Transmission Owner
12 Maintenance Practices for electric overhead transmission
13 lines for Pacific Gas & Electric dated December of 2004.

14 Q. All right. And again, this is a business record
15 kept by the ISO?

16 A. Yes.

17 Q. This is kept in the regular course of business
18 at the ISO?

19 A. Yes.

20 Q. This is part of the Transmission Control
21 Agreement; correct?

22 A. These maintenance practices are required as part
23 of the Transmission Control Agreement, yes.

24 Q. Right.

25 MR. NOEL: I think everybody is getting tired so
26 maybe we won't go through this one and we'll just put it

1 in evidence.

2 Any questions, Mr. Fogg?

3 MR. FOGG: (Shakes head.)

4 MR. NOEL: Any questions, Ladies and Gentlemen
5 of the Jury?

6 [Conferring off the record.]

7 MR. NOEL: All right. They all look good.

8 BY MR. NOEL:

9 Q. All right. Mr. Casey -- Dr. Casey, I'm sorry.
10 It's getting late.

11 A. That's all right.

12 Q. There are some questions from the jurors that I
13 am going to read to you. We have reviewed them and
14 determined that they are admissible or potentially are
15 admissible.

16 "Has CAISO inspected PG&E maintenance records
17 and found that PG&E has falsified inspections and/or
18 repairs?"

19 A. No. We do find records that are at times
20 inaccurate, but falsifying suggests an intent to
21 potentially falsify the -- the records that we found
22 inaccurate appear to be data entry errors that were not
23 intentional.

24 Q. So let's say, for instance, they submitted
25 records that -- or reports of inspections that didn't
26 give accurate dates. Would that be a big thing?

1 A. Well, as I said earlier in my testimony, any
2 time there are inaccurate dates in the records, it makes
3 verifying their compliance with the practices more
4 challenging. So, you know, we obviously don't want to
5 see that.

6 But there was a period, what I've heard from my
7 staff, where there were field entities that weren't being
8 done. And those field entries were being brought back to
9 the main office, and they were translated into a
10 database. And there were times where what got translated
11 into the database was not consistent with the field
12 entry.

13 Those appear to be clerical errors that were
14 caught. So I don't think there was, based on what I have
15 heard, any indication that this was intentional.

16 Q. Okay. And we're actually talking more about the
17 actual handwritten reports that would be submitted by the
18 troubleshooters or the qualified company representative who
19 was doing the inspections.

20 For instance, if one person put down in an
21 inspection that they inspected all of these towers when,
22 in fact, there were multiple people who were out doing
23 inspections, would that potentially be a big thing?

24 A. It could potentially be a big thing if they were
25 reporting conditions of facilities that were facilities
26 that they didn't actually inspect.

1 Q. Another example would be if they were inspecting
2 transmission towers and passing those towers when those
3 towers don't even exist anymore. So basically inspecting
4 nonexistent towers.

5 A. That would be a problem, yes.

6 Q. Or they are not updating their records to show
7 the towers have been moved so when you're reviewing --
8 when the ISO is reviewing the inspection records, outside
9 of those records how would you know that those towers had
10 been moved?

11 A. Well, that's where some of the field inspections
12 that we do could help with that. If we did an actual
13 field inspection and it was obvious that the towers were
14 moved but the records didn't reflect that, we could catch
15 that.

16 Q. But that would be on the chance that you just
17 happened to be doing field inspections on that very line
18 and chose those couple of towers out of several hundred
19 towers?

20 A. That's correct.

21 Q. Now, has ISO found PG&E maintenance practices to
22 be in violation of the agreement?

23 A. No. As a general matter, no. We do find
24 through the annual reviews that there are what we call
25 findings or observations where for particular facilities
26 what we found was in our view not consistent with the

1 maintenance practices. But overall, I would say that in
2 general their transmission work is very consistent with
3 the maintenance practices.

4 Q. How does ISO address falsified records
5 violations of the agreement related to maintenance?

6 A. Well, as I said, we have not found records that
7 were intentionally falsified. If we had, we do have a
8 provision in the maintenance provisions where we could
9 report a transmission owner to FERC. The Federal Energy
10 Regulatory Commission is the federal government entity
11 that oversees the California ISO and could recommend
12 penalties for something like that. But that is not
13 something we've had to do because we have not been in
14 that situation.

15 Q. Would you consider the functional age of either
16 metallic or non-metallic structures as a reasonable
17 subject for sound engineering judgment to apply to
18 maintenance standards?

19 A. Could you repeat the question.

20 Q. Would you consider the functional age of either
21 metallic or non-metallic structures as a reasonable
22 subject for sound engineering judgment to apply to
23 maintenance standards?

24 A. I would consider that, but I will caveat my
25 response with I'm not a field expert in transmission
26 structures or inspections. I'm an executive who oversees

1 a group of experts. So based on my limited knowledge of
2 having interacted with the experts in this area, that
3 sounds like a reasonable thing to consider.

4 Q. Does CAISO or has CAISO examined metallurgical
5 age and stress conditions in setting or meeting CAISO
6 maintenance standards?

7 A. I'm really not qualified to answer that. It
8 gets into a level of detail I'm just not familiar with.

9 Q. Okay. Does CAISO actually physically review the
10 PTO's actual field implementation of the PTO's
11 maintenance standards as opposed to review of the
12 self-policing documentation?

13 A. As I said, in addition to examining the
14 maintenance records for a subset of transmission
15 facilities, we will then take a subset of that subset and
16 actually go out and do a field inspection to look for
17 evidence that the work reported in the maintenance record
18 was actually done.

19 Q. Would you say that CAISO's maintenance standards
20 were reasonably affective as they applied in November of
21 '18 prior to the Caribou-Palermo Camp Fire which started
22 on the PG&E transmission line between Caribou and
23 Palermo?

24 A. I would say they were reasonably applied for
25 their intended purpose, which again was to ensure the
26 availability of the transmission facilities to the power

1 grid. So from that standpoint, yes.

2 Q. Does CAISO have any section whose sole
3 responsibility is the examination and detail of specific
4 PTO's maintenance reporting?

5 A. Well, that role is really part of the
6 maintenance review that the ISO performs. So it is
7 looking at the maintenance records for a subset of
8 facilities it selects for review each year. But it does
9 not -- the ISO does not do a comprehensive review of all
10 the records that PG&E keeps.

11 Q. To what degree, if any, is the CAISO subject to
12 CPUC control or oversight?

13 A. The ISO is not regulated by the Public Utility
14 Commission. As I stated, we are a private corporation.
15 We are regulated by the Federal Energy Regulatory
16 Commission. So I guess that answers the question.

17 Q. Does CAISO have any means of determining that a
18 PTO is actually considering age of critical structure
19 components in its inspection and maintenance practices?

20 A. Well, that certainly wasn't explicit
21 consideration in maintenance standards. Excuse me. The
22 maintenance practices we reviewed today. I would note
23 the -- beginning in 2006 the age of the facility was not
24 explicit. They moved away from the priority ranking and
25 based inspection frequency on voltage levels.

26 So under that new maintenance practice approach

1 I don't know specifically how they consider ages of
2 facilities and how they approach inspecting them.

3 Q. All right. And there are further TOMPs after
4 2004 where we stopped there today; correct?

5 A. Yes.

6 Q. And are you familiar with the PG&E ETPM, the
7 Electric Transmission Preventative Maintenance Manual?

8 A. No.

9 MR. NOEL: Okay. All right. Anything further?
10 Any follow up?

11 GRAND JUROR NUMBER FOURTEEN: That creates a
12 question. You guys are nonprofit. How are you guys
13 funded?

14 THE WITNESS: We are funded by a charge for
15 the -- what we call the low-serving entities that
16 ultimately provide the wholesale power to end users like
17 yourself. So there's a per kilowatt hour charge. It's
18 kind of an administrative charge that is collected and
19 provided to the ISO. And those fund our annual operation
20 costs.

21 GRAND JUROR NUMBER FOURTEEN: So you have a
22 surcharge on our PG&E bill?

23 THE WITNESS: Yeah. It is imbedded in the PG&E
24 bill as a charge.

25 MR. NOEL: All right. Dr. Casey, thank you for
26 coming today.

1 THE WITNESS: Thank you.

2 GRAND JURY FOREPERSON: Madam Foreperson will
3 have an admonition for you and then you're free to leave.

4 GRAND JURY FOREPERSON: Dr. Casey, you are
5 admonished not to discuss or disclose at any time outside
6 of this jury room the questions that have been asked of
7 you or your answers until authorized by the grand jury or
8 the Court. A violation of these instructions on your
9 part may be the basis for a charge against you of
10 contempt of court. This does not preclude you from
11 discussing your legal rights with your own attorney.

12 Dr. Casey, what I have just said is a warning
13 not to discuss this case with anyone except the Court,
14 your lawyer, or the district attorney.

15 Do you have any questions?

16 THE WITNESS: No, I do not.

17 GRAND JURY FOREPERSON: Okay. Thank you for
18 your time today.

19 THE WITNESS: Thank you.

20

21 [DISCUSSION OMITTED.]

22

23 [Exhibits 608, 609, 610, 611, 612, 613, 614,
24 615, 616, 617, 618, 619, 620, 621, 622,
25 623, 624, 625, 626, 627, 628, and 630
26 received into evidence.]

[DISCUSSION OMITTED.]

[Matter adjourned at 5:00 p.m.]

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COURT REPORTER'S CERTIFICATE

This is to certify that I, Lisa McDermid Welch, a Certified Shorthand Reporter of the State of California was present at the time and place the foregoing grand jury proceedings were had and taken in the within matter; and that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings; and afterwards caused my said shorthand writing to be transcribed into typewriting; and the foregoing pages, beginning at the top of Page 1 to and including Page 220 hereof, constitute a full, true, accurate, and complete record of the proceedings.

DATED: This 6th day of June, 2022.

Lisa McDermid Welch

LISA MCDERMID WELCH, CSR, RPR
CSR LICENSE NO. 10928

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

REDACTED

BCSC-2019-GJ-01

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, OCTOBER 29, 2019

VOLUME 23

OROVILLE, BUTTE COUNTY, CALIFORNIA

LISA MCDERMID WELCH, CSR 10928, OFFICIAL COURT REPORTER

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5 Oroville, California 95965

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I N D E X

WITNESSES:

PAGE

FADI DAYE

Examination by Mr. Noel

05

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INDEX OF GRAND JURY EXHIBITS

EXHIBIT	DESCRIPTION	INTRODUCED	MARKED	ADMITTED
631	CPUC Code Sections	10		
632	CPUC General Order 95	12		
633	CUPC General Order 165	43		
634	Electric Facilities Safety Audit Reports Archive	47		
635	November 7, 2016, Audit of PG&E Victor Division	50		

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1 OROVILLE, BUTTE COUNTY, CALIFORNIA

2 OCTOBER 29, 2019; 8:35 a.m.

3 (Confidential Special Grand Jury Hearing Proceedings)

4
5 [ROLLCALL OMITTED.]

6
7 [DISCUSSION OMITTED.]

8
9 [Witness enters the courtroom.]

10 GRAND JURY FOREPERSON: Good morning.

11 Mr. Daye, before you have a seat, would you
12 please raise your right hand to be sworn.

13 Mr. Daye, do you solemnly swear the evidence you
14 shall give in the matter pending before the grand jury
15 shall be the truth, the whole truth, and nothing but the
16 truth so help you God?

17 THE WITNESS: I do.

18 GRAND JURY FOREPERSON: Thank you. Have a seat,
19 please.

20 **EXAMINATION**

21 BY MR. NOEL:

22 Q. Mr. Daye, can you please state your full name
23 and spell your last name for the record.

24 A. My name is Fadi Daye, the last name spelled D,
25 as in David, a-y-e.

26 Q. By whom are you employed? By whom are you

1 employed?

2 A. I'm employed by the California Public Utilities
3 Commission.

4 Q. What do you do for the Public Utilities
5 Commission?

6 A. So currently my position is as a program and
7 project supervisor. The commission is divided into many
8 divisions. Every division has a specific function within
9 the commission.

10 Our division is called the Safety Enforcement
11 Division. It's in charge of the safety of many utilities
12 in California.

13 Every division has branches. My branch is the
14 Electric Safety and Reliability Branch.

15 So what we do is we audit and inspect electric
16 utilities to make sure they are in compliance with the
17 rules that are set by the commission.

18 Would you like me to you give the structure of
19 how --

20 Q. Let's back up a little bit and we'll walk
21 through that in just a second.

22 How long have you been employed by the CPUC?

23 A. Either since 1990 or 1991.

24 Q. What is your educational background that
25 qualifies you for your position?

26 A. I have a Bachelor's degree in electrical

1 engineering. I have a dual Masters's degree, one in
2 Business Management and one in International Relations.
3 And currently I hold the PE license. It's called
4 professional engineering license in the state of
5 California in electrical engineering.

6 Q. Walk us through your career with the CPUC, what
7 jobs you've done, what titles you've held.

8 A. So when I joined the commission, I joined as a
9 junior utility engineer, as a junior utility engineer to
10 basic audit an investigation of utilities system. At
11 that time my branch oversaw electric and gas utilities in
12 California. So we used to audit and inspect gas and
13 electric utilities.

14 After two years you get promoted to an assistant
15 utility engineer where you start doing more challenging
16 work. And then from an assistant you get promoted to an
17 associate utility engineer once you obtain your PE
18 license. I obtained my PE license in '95, '96. Maybe
19 something like that.

20 And then after I obtained my PE license, I had a
21 chance to apply for senior utility engineer supervisor.
22 So as a senior utility engineer supervisor your job is to
23 supervise a crew of engineers or to audit inspections.
24 You review their work. You assign them work. You review
25 their reports. You train them.

26 After I became a -- I became a senior utility

1 engineer supervisor in 2000. From 2000 until 2014 I held
2 the position of the senior utility engineer supervisor in
3 the Los Angeles office. All of my staff are located in
4 the Los Angeles office. I supervise anywhere between
5 five to a maximum of eight engineers at a time.

6 In 2014 I became a program and project
7 supervisor in the Los Angeles office which mean I was
8 responsible to all of the staff that was in the Los
9 Angeles office. These staffs are junior engineers,
10 senior utility engineer supervisors, and other senior
11 specialist engineers.

12 Q. Can you explain to us just briefly in very
13 general terms what is the CPUC.

14 A. The CPUC is a regulatory agency that is in
15 charge of regulating investor-owned utilities. They
16 regulate the rates and their safety.

17 Q. From where does the CPUC get its power to
18 regulate?

19 A. I believe it's from the Public Utilities Code.

20 Q. Now, you were talking earlier about you are in
21 the SED, the Safety Enforcement Division of the CPUC; is
22 that correct?

23 A. That's correct.

24 Q. Explain to us what the SED is and what you do.

25 A. So at SED -- since I've been with the
26 commission, our division has went through many revisions.

1 At one time we used to call Safety Division and then we
2 changed to Safety -- Consumer Protection and Safety
3 Division and then we went back to Safety Enforcement
4 Division.

5 So basically again, as I said, the commission is
6 divided into many divisions. Each division has a task or
7 a function. The task of our division as it stands today
8 is to oversee the safety of the electric and gas
9 facilities within the state of California.

10 So this division has many branches. It has a
11 branch that is in charge of the electric facilities. It
12 has a branch that is in charge of gas utilities and it
13 has some other branches called Risk and Assessment
14 Branch, the risk and assessment work and some security.

15 Q. And now what exactly does your unit within the
16 Safety and Enforcement Division do?

17 A. Okay. So our branch is the called the Electric
18 Safety and Reliability branch. What we do is we audit
19 utilities electric and investor-owned utilities. We also
20 audit municipality and we audit co-ops to ensure that
21 their facilities comply with the rules that are set by
22 the commission.

23 We also investigate accidents that meet certain
24 reporting requirements. We also advocate for more safety
25 rules when we think some changes are required.

26 Q. Now, we talked earlier about the power of the

1 CPUC being derived from the California Public Utilities
2 Code.

3 You should have in front of you a document
4 marked as Exhibit Number 631. It's right there on the
5 top of the stack. Do you see that?

6 A. Yes, I do.

7 Q. And it starts off with Public Utilities Code
8 Section."

9 A. Yes, I do.

10 Q. And first of all, we have Public Utilities Code
11 Section 701 that's in there that talks about the
12 commission being the California Public Utilities
13 Commission. They supervise and regulate every public
14 utility in the state, and they do all things whether it's
15 specifically designated in this part or in addition
16 thereto which are necessary and convenient in the
17 exercise of such power and jurisdiction."

18 That's essentially -- it grants the power to the
19 CPUC; correct?

20 A. I mean, you could correct. But again, these are
21 legal questions. And we have a legal department that
22 addresses these issues. But, yes, I don't have any
23 reason to doubt this.

24 Q. Right. Now we have 702; Compliance. 8037; the
25 Commissioner's Power To Grant.

26 All right. So let's get to the heart of this.

1 As a regulatory agency does the commission have or does
2 the commission to your knowledge promulgate rules for the
3 utilities?

4 A. Yes.

5 Q. And are you familiar with the rules promulgated
6 by the commission pertaining to the investor-owned
7 electric utilities?

8 A. Yes. The rules that are -- that address the
9 construction and design of the owner-held facilities,
10 yes.

11 Q. Describe for us briefly those rules.

12 A. Okay. So those rules date back to 1911. Back
13 then there is legislation enacted, a new law called -- I
14 believe it's Chapter 499 to address the construction, the
15 erection of poles, and overhead wires.

16 At that time the commission used to be called
17 the Railroad Commission. It used to have a different
18 name. And later on the legislation give the Railroad
19 Commission the authority over utilities in California and
20 the authority to modify the rules as the commission deems
21 appropriate for technologies and for advancement.

22 Since that time those rules have been going
23 through revisions. And I believe the Railroad Commission
24 issued a general order sometime in 1922. It's called
25 General Order 64 which addresses the rule of overhead
26 construction facilities and that it modified it to

1 General Order 64-A.

2 And then after long reviews with industry expert
3 from the utilities, from the public, from consultants, in
4 1941 the Railroad Commission adopted General Order 95
5 which is this general order that addresses the
6 construction of overhead and communication lines.

7 And since that time there are many rules in
8 GO 95 that have changed or been modified or deleted since
9 it was adopted.

10 Q. So you have in front of you the binder, the big
11 white binder. If you want to flip over that binder, the
12 first page should be marked as Exhibit Number 632. See
13 that?

14 A. Yes, I do.

15 Q. Do you recognize Exhibit 632?

16 A. Yes, I do.

17 Q. What is Exhibit 632?

18 A. It's a copy of General Order 95 with a December
19 2017 version.

20 Q. So is this the version that would have been in
21 effect in November of 2018?

22 A. Yes, Sir.

23 Q. So exactly what is GO 95?

24 A. So GO 95 covers the requirement for every
25 utility or any jurisdictional entity within the state of
26 California. These are rules that they have to follow

1 when they design, construct, maintain, operate their
2 overhead facilities whether it's communication or whether
3 it's electric facilities.

4 Q. All right. Switch up here. All right. We are
5 going to bring up on the big board the copy of GO 95 that
6 you're looking at. And let's walk through it. Let's
7 start at the beginning with the preface. And you can
8 just use the big board if you want instead of flipping
9 through there.

10 So this is what -- the preface which you were
11 talking about. CPUC came into existence in 1911 as the
12 Railroad Commission. In 1922 General Order 64 is
13 adopted. And it goes through the history and eventually
14 64-A changed to or was adopted as 95; is that correct?

15 A. That is correct.

16 Q. Okay. So let's go to the rules themselves. All
17 right. Section One. Can you read for us the basics Rule
18 11 and 12.

19 A. "Rule 11: Purpose of the rules. The purpose of
20 these rules is to formulate for the State of California
21 requirements for overhead line design, construction, and
22 maintenance the application of which will ensure adequate
23 service and secure safety to persons engaged in the
24 construction, maintenance, operation, or use of overhead
25 lines and to the public in general."

26 "Rule Number 12: Applicability of Rules. These

1 rules apply to all overhead electric supply and
2 communication facilities that come within the
3 jurisdiction of this commission located outside of
4 buildings including facilities that belong to nonelectric
5 utilities as follows."

6 Q. Okay. And then it goes through a bunch of stuff
7 in 12.1.

8 You spent a great deal of the last 30 years
9 working with and supervising the auditing of the
10 investor-owned utilities; correct?

11 A. That's correct.

12 Q. Are the rules contained in GO 95 applicable to
13 PG&E?

14 A. Yes, they are.

15 Q. And is PG&E bound to follow the rules of GO 95?

16 A. Yes, they are.

17 Q. And what steps are taken by the CPUC to ensure
18 that PG&E is complying with the rules of GO 95?

19 A. So what we do is we have an audit inspection
20 program where we audit utilities including PG&E. We have
21 other procedures that identify the steps required for us
22 to follow when we schedule audits. Every utility divides
23 their facilities into districts or regions. Every year
24 we select either a district or region to audit to make
25 sure that the utility is complying with these.

26 So do you want me to go over step by step?

1 Q. Nope. We'll come back to that. I just wanted
2 to go through that as an introduction.

3 So let's drop down to 12.1(d). If you could
4 read that for us.

5 A. "The replacement of poles, towers, or other
6 structures is considered to be reconstruction and
7 requires adherence to all strength and clearance
8 requirements of these rules. The clearances of the spans
9 adjacent to the new support need not be changed but the
10 new support shall be such that when the adjacent support
11 is replaced the span between will meet all the provisions
12 of this Order."

13 Q. Can you explain that to us very briefly.

14 A. I wish I can.

15 Q. Using use your engineering background.

16 A. Okay. You're going to notice that there are
17 many rules in GO 95 that are open to interpretation. And
18 sometimes it's very hard for just one person to make up
19 an opinion about them. This is why it takes a team to
20 actually analyze them.

21 These rules are not written by people with -- by
22 technical people. Some of these rules are written by
23 either attorneys or they're written by whoever the
24 utilities at that time decided to present them or the
25 consultant or the public.

26 So in GO 95 when the system is built, when the

1 facility is built, it's required to comply with the rules
2 that existed at that time. Later on in the future if the
3 rule changed, the facilities are not required to comply
4 with the new rules. They're still required to comply
5 with the rules at the time they were designed or they
6 were installed.

7 However, there are exceptions to these rules.
8 The exception has to do with the strength. So basically
9 what it says is if the facility was built in 1920 and the
10 strength requirement changed in 1950, for example, so we
11 expect the strength requirement of this facility to meet
12 the new rules in 1950 even if it was built in 1920.

13 But how about if the rule changed that did not
14 involve strength? If the facility was built in 1920 and
15 it required certain towers and then the towers changed in
16 1950, this rule -- the new rule in 1950 will not be
17 retroactive which means the facility will not have to
18 meet the new one but unless there was reconstruction or
19 replacement.

20 So in this case if you have two towers, for
21 example based on this rule, that were built a long time
22 ago and you decided to replace one of these towers,
23 eventually the conductors that go from this tower to this
24 tower -- I'm pointing from my left hand to my right hand.
25 So the conductors on these facilities, depending on the
26 length of the towers, depending on where you're attaching

1 your facilities on the tower, the clearances may change.

2 So what this is saying is these clearances
3 should still follow the older rule even though you put
4 new towers in its place. However, if the adjacent tower
5 later changed, then the clearances will have to meet the
6 new rules.

7 Q. And by clearances you mean the distance from the
8 energized line to some other point at its lowest point?

9 A. So the clearance is between the conductor and
10 ground, the clearance between the conductor themselves or
11 any other structure that exists on the tower that they
12 use.

13 Q. All right. Let's move on to 12.2: Maintenance
14 of Lines. I'll have you read that for us.

15 A. "All lines and portions of lines shall be
16 maintained in such condition as to provide safety factors
17 not less than those specified in Rule 44.3. Lines and
18 portions of lines constructed or reconstructed on or
19 after the effective date of this Order shall be kept in
20 conformity with the requirements of this Order.

21 The restoration of clearance originally
22 established prior to the effective date of this Order,
23 where the original clearance has been reduced by
24 additional sagging or other causes, is not considered to
25 be reconstruction and the reestablished clearance shall
26 conform to the requirements of the rules in effect at the

1 time the original clearance was established. The
2 changing of clearance for any other purpose is
3 reconstruction and clearances so changed shall comply
4 with the rule of this Order applicable to
5 reconstruction."

6 Q. And then 12.3 if you can read that.

7 A. "Lines Constructed Prior to this Order. The
8 requirements of this Order, other than the safety factor
9 requirements specified in Rule 12.2, do not apply to
10 lines or portions of lines constructed or reconstructed
11 prior to the effective date of this Order. In all other
12 particulars, such lines or portions of lines shall
13 conform to the requirements of the rules in effect at the
14 time of their construction or reconstruction.

15 Lines or portions of lines constructed or
16 reconstructed before July 1, 1942, may conform to and be
17 maintained in accordance with the requirements of this
18 Order, instead of the requirements in effect at the time
19 of such construction or reconstruction."

20 Q. All right. So let's move on to Rule 13: Scope
21 of Rules. Can you read that to us.

22 A. "Scope of Rules. These rules are not intended
23 as complete construction specifications, but embody only
24 the requirements which are most important from the
25 standpoint of safety and service. Construction shall be
26 according to accepted good practice for the given local

1 conditions in all particulars not specified in the
2 rules."

3 Q. And 17.

4 A. "Investigation of Accidents. Each owner or
5 operator of supply lines shall establish procedures for
6 the investigation of major accidents and failures for the
7 purpose of determining the causes and minimizing the
8 possibility of recurrence. Nothing in this rule is
9 intended to extend, waive, or limit any claim of attorney
10 client privilege and/or attorney work product privilege."

11 Q. And then we have the definition of major
12 accidents and failures.

13 A. Do you want me to read it?

14 Q. Just real quickly, major accidents are anything
15 over \$50,000 or causes injury or death; correct?

16 A. That's correct.

17 Q. All right. Now, let's get to the meat. Rule
18 18. What is Rule 18?

19 A. Okay. So after the 2007 fires that occurred in
20 Southern California, the commission adopted new rule.
21 It's called Rule 18. So this rule basically required the
22 utilities to prioritize problems or violations they found
23 on their system and to implement a corrective action plan
24 for each violation or problem they discovered during
25 their inspections. They will give each violation, for
26 example, a priority level either 1, 2, or 3. Every

1 priority level has a limit to when such a violation has
2 to be corrected.

3 This rule identified exactly what those limits
4 are and what those intervals are. And it has also a
5 requirement what the utility would do when they find
6 violations on their system, if they found a violation on
7 a communication system. And the same thing. What would
8 the communication company do if they discovered a
9 violation that doesn't belong to their facilities if they
10 do their own inspection?

11 For example, if Cox Communication or Comcast was
12 doing an inspection and they found a violation for PG&E,
13 what they should do? This rule would tell them exactly
14 what they should do.

15 Q. In your role as essentially the supervisor of
16 the team that audits the investor-owned utilities such as
17 PG&E, what part does this rule play?

18 A. So when we do an audit, part of the records we
19 check are inspection records of the utility's inspection
20 records. These are the actual inspection records that
21 tell us how often the utilities do their own inspections,
22 what kind of problems or violations they discovered when
23 they were doing the inspection. Did they prioritize them
24 based on this rule? Did they have a corrective action
25 plan for every violation they discovered? Was the
26 violation fixed within the timeframe as required by this

1 rule?

2 Q. All right. So let's start off with the first
3 paragraph in this rule, the definition is safety hazards.
4 If you'd read that for us.

5 A. "For the purpose of this rule safety hazard
6 means a condition that poses a significant threat to
7 human life or property."

8 Q. And then if we could start off with
9 Subsection A. If you could start reading that for us.

10 A. "Resolution of Safety Hazards And General
11 Order 95 Nonconformances. Each company including
12 utilities and CIPs --" CIP stands for communication
13 infrastructure providers --" is responsible for taking
14 appropriate corrective action to remedy safety hazards
15 and GO 95 nonconformances posed by their facility."

16 Q. And let's skip down to Subsection 2(a). If you
17 could read that for us.

18 A. "All companies shall establish an auditable
19 maintenance program for their facilities and lines. All
20 companies must include a timeline for corrective actions
21 to be taken following the identification of a Safety
22 Hazard or nonconformances with General Order 95 on the
23 company's facilities.

24 The auditable maintenance program shall
25 prioritize corrective actions consistent with the
26 priority levels set forth below and based on the

1 following factors as appropriate: Safety and reliability
2 as specified in the priority levels below; type of
3 facility or equipment; location, including whether the
4 safety hazard or nonconformance is located in a high fire
5 threat district; accessibility; climate; direct or
6 potential impact on operations, customers, electrical
7 company workers, communications workers, and the general
8 public."

9 Q. What does it mean to have an auditable
10 maintenance program?

11 A. So an auditable maintenance program is a
12 pull-down word. If somebody was able to look at it and
13 inspect it, it must include all the following: It must
14 include the violation that somebody discovered, must
15 include who discovered the violation, how the company
16 discovered the violation or the safety hazard, where they
17 discovered it, the type of equipment that is involved,
18 the locations, how accessible it is. I mean, as
19 specified here.

20 Q. Okay. Let's move on now to the second half of
21 (2) (a), Subsection (2) (a): The Priorities. If you can
22 go ahead and read that for us.

23 A. "There shall be three priority levels. Level 1:
24 Immediate safety and/or reliability risk with high
25 probability for significant impact. Take action
26 immediately, either by fully repairing the condition, or

1 by temporarily repairing and reclassifying the condition
2 to a lower priority.

3 Level 2: Variable (non-immediate high to low)
4 safety and/or risk reliability or reliability risk. Take
5 action to correct within specified time period (fully
6 repair, or by temporarily repairing and reclassifying the
7 condition to a lower priority.)

8 Time period for correction to be determined at
9 the time of identification by a qualified company
10 representative but not to exceed, one, six months for
11 nonconformances that create a fire risk located in tier
12 three of the high fire threat district; two, 12 months
13 for nonconformances that create a fire risk located in
14 tier two of the high fire threat district; three,
15 12 months for nonconformances that compromise worker
16 safety; and four, 59 months for all other Level 2
17 nonconformances.

18 Level 3: Acceptable safety and/or reliability
19 risk. Take action to re-inspect, re-evaluate, or repair
20 as appropriate.

21 b) Correction times may be extended under
22 reasonable circumstances such as: Third party refusal,
23 customer issue, no access, permits required, system
24 emergencies such as fires, severe weather conditions.

25 (3) Companies that have existing General Order
26 165 auditable inspection and maintenance programs that

1 are consistent with the purpose of Rule 18A shall
2 continue to follow their General Order 165 programs."

3 Q. All right. And then we have B.

4 A. "B: Notification of Safety Hazards. If a
5 company, while performing inspections of its facilities,
6 discovers a safety hazard on or near a communications
7 facility or electric facility involving another company,
8 the inspecting company shall notify the other company
9 and/or facility owner of such safety hazards no later
10 than ten business days after the discovery. To the
11 extent the inspecting company cannot determine the
12 facility owner/operator, it shall contact the pole owners
13 who shall be responsible for promptly notifying the
14 company owning/operating the facility with the safety
15 hazards normally not to exceed five business days after
16 being notified of the safety hazard. The notification
17 shall be documented and such documentation must be
18 preserved by all parties for at least ten years."

19 Q. All right. And -- oops, I want to go back. I
20 skipped over.

21 So down here on the bottom at the end of Rule 18
22 there's a note "Added August 20th, 2009, by decision
23 number 0908029."

24 You see that?

25 A. Yes, I do.

26 Q. Do you have an understanding of what that means?

1 A. Okay. So every time there's a change in a rule,
2 at the bottom of the rule it will tell you the date the
3 rule was changed or modified or added and how by decision
4 or by resolution.

5 So in this case the first one here is saying
6 that this rule was added in 2009. So it did not exist
7 before 2009. And it gives you the decision -- the
8 commission decision to edit the rule. And then it says
9 "Revised January 12, 2012."

10 So on January 12th of 2012 the rule was revised
11 the first time by decision and the decision number. And
12 again, it was revised on December 14th, 2017, by the
13 decision shown here.

14 Q. And this version that we just read is what was
15 in effect in 2018; right?

16 A. That's correct.

17 Q. All right. Let's move on to Rule Number 19.

18 A. "Rule Number 19: Cooperation with Commission
19 Staff; Preservation of Evidence Related to Incidents
20 Applicability of Rules.

21 Each utility shall provide full cooperation to
22 Commission staff in an investigation into any major
23 accident as defined in Rule 17 or any reportable incident
24 as defined in CPUC Resolution E-4184 regardless of
25 pending litigation or other investigations including
26 those which may be related to a Commission staff

1 investigation. Once the scene of the incident has been
2 made safe and service has been restored, each utility
3 shall provide Commission staff upon request immediate
4 access to: Any factual or physical evidence under the
5 utility or the utility agent's physical control, custody,
6 or possession related to the incident; the name and
7 contact information of any known percipient witness; any
8 employee percipient witness under the utility's control;
9 the name and contact information of any person or entity
10 that has taken possession of any physical evidence
11 removed from the site of the incident; any and all
12 documents under the utility's control that are related to
13 the incident and are not subject to the attorney-client
14 privilege or attorney work product doctrine.

15 Any and all documents or evidence collected as
16 part of the utility's own investigation related to the
17 incident shall be preserved for at least five years. The
18 Commission's statutory authorization under California
19 Public Utility Code Section 313, 314, 314.5, 315, 581,
20 582, 584, 701, 702, 771, 1794, 1795, 8037, and 8056 to
21 obtain information from utilities, which relate to the
22 incidents described above, is delegated to Commission
23 staff."

24 Q. All right. Now, going back to 631 that you have
25 in front of you, the first one we looked at.

26 A. Yes.

1 Q. And that's the list of code sections that are
2 actually quoted in there; correct?

3 A. It's one of them, yes.

4 Q. All right. And if you'd go through it to check
5 and see and make sure all of the code sections that are
6 listed at the end of Rule 19 are contained in that
7 packet.

8 A. I think it's missing so far 771.

9 Q. Okay. We'll try to remedy that.

10 A. So it also has other sections that are not in
11 here.

12 Q. Okay. We'll get to those later.

13 All right. So that's Section 19. Now we go on
14 to the next section which is definitions; Section 2:
15 Definitions of Rules. Can you tell us very briefly what
16 Section 2 does.

17 A. It defines terms that are used in General
18 Order 95.

19 Q. Okay. So relevant terms, if you want to look it
20 up, there is where you go to find it?

21 A. That's correct.

22 Q. So things like conductor?

23 A. That's correct.

24 Q. Districts?

25 A. That's correct.

26 Q. Most importantly maintenance?

1 A. Yes.

2 Q. All right. So let's move on from that and jump
3 to Rule 31. And this is in Section 3.

4 Can you explain to us the significance in your
5 job of Rule 31.

6 A. So Rule 31 is probably the most important rule
7 in General Order 95. Basically, this rule requires the
8 utility to design their system, to operate it, to install
9 it, and to maintain it in a safe and reliable way. Not
10 only this but if local condition -- if there are some
11 condition that require the utility to exceed the minimum
12 requirement of this rule, based on this rule the
13 utilities are supposed to exceed their requirements
14 according to the local condition.

15 Q. So if somebody was looking for the requirements
16 that PG&E would have to uphold with the transmission
17 line, Rule 31 would be a good place to start; is that
18 correct?

19 A. That's correct.

20 Q. All right. So we have Rule 31, 31.1.

21 A. Can I say something? Can I add more to 31?

22 Q. Sure.

23 A. As I said before, GO 95 address the construction
24 and maintenance of the rule. So when it comes to
25 maintenance, you always apply to current. It doesn't
26 matter when the system was designed. If you maintain

1 your facility today, you apply the maintenance order as
2 of today. This will be used both in construction and
3 maintenance.

4 So if, for example, we want to know local
5 conditions about a facility to see did the local
6 conditions require the utility to exceed the minimum
7 requirement, this rule also change over time. So we have
8 to go to the rules that existed at the time the
9 construction was conducted to see what were the local
10 conditions at that time that required the utility --
11 whether to discover the utility was required to exceed
12 those local requirements for construction purposes. But
13 for maintenance purposes, it doesn't matter when
14 something at the utility was installed. You always
15 comply with the latest maintenance rule.

16 Q. So a line that was built, say, in 1921 would
17 still have to comply with the maintenance policies in
18 effect in 2018; correct?

19 A. It's my opinion, yes, it does. If the condition
20 changes for maintenance and the utility know that right
21 now we need to strengthen our system or if there is any
22 kind of change that requires the utility to exceed their
23 maintenance standards, I believe yes.

24 Q. So 31.1 applies to design, construction, and
25 maintenance. Let's go on to 31.2. And this one is
26 relatively brief. Can you read that for us.

1 A. "Lines shall be inspected frequently and
2 thoroughly for the purpose of ensuring that they are in
3 good condition so as to conform with these rules. Lines
4 temporarily out of service shall be inspected and
5 maintained in such condition as not to create a hazard.

6 Communication lines (see Rule 80.1.)

7 Supply lines shall be inspected in compliance
8 with the requirements of General Order 165."

9 Q. And what are communication lines?

10 A. Communication lines are lines that belong to the
11 communication company whether it's cable TV, telephone
12 line, whether they're even lines that belong to wireless
13 facilities, fiberoptic lines.

14 Q. And what are supply lines?

15 A. Supply lines are power lines, actual power lines
16 that deliver electricity.

17 Q. Okay. All right. Let's skip ahead to 43.
18 Let's go to Rule 44, another brief one. If you could
19 read it for us.

20 A. "The safety factors specified in these rules are
21 the minimum allowable ratios of material and/or line
22 element strengths to the effect of design loads as
23 specified in Rule 43."

24 Q. So then 43 is what? Go ahead and read 43 for
25 us.

26 A. "The following conditions of temperatures and

1 loading shall be used for the purposes of these rules in
2 determining the strength required of lines (See
3 Rule 22.1). Loading or loads as used in this section
4 includes vertical, transverse, and longitudinal
5 components of all loads. More stringent conditions may
6 be used in the design of lines. The use of less
7 stringent conditions or modified loading district limits
8 may be authorized by this Commission upon application and
9 presentation of data from United States weather records
10 or other adequate and authenticated meteorological data
11 which in the Commission's opinion justifies such change."

12 Q. Let's go down to 43.2. And read that for us.

13 A. "Light loading. Light loading shall apply in
14 all parts of the State of California where the elevation
15 above sea level is 3,000 feet or less (See Appendix A for
16 map). This loading shall be taken as the resultant of
17 wind pressure and deadweight under the following
18 conditions: A, wind. A horizon wind pressure of
19 8 pounds per square foot of projected area on cylindrical
20 surfaces, and 13 pounds per square foot on flat surfaces
21 shall be assumed. Where latticed structures are used,
22 the actual exposed area of one lateral face shall be
23 increased by 50 percent to allow for pressure on the
24 opposite face, provided this computation does not
25 indicate a greater pressure than would occur on a solid
26 structure of the same outside dimensions, under which

1 conditions the latter shall be taken.

2 B: Ice. No ice load is to be considered.

3 C: Temperatures. Conductor temperature shall
4 be assumed to be 25 degrees Farenheit at the time of the
5 maximum loading. A conductor temperature of at least 130
6 degrees Farenheit shall also be assumed for computing sag
7 and its effect on structural loads due to weight span."

8 Q. Any idea what any of that means?

9 A. Yeah. I can explain to you but --

10 Q. Okay. Go ahead, please.

11 A. But I just want this to be known I'm not the
12 most qualified person to address loading. That is a job
13 of civil engineers, but I do have an idea about it.

14 So when you're designing a new system of poles
15 and conductors --

16 You want me to explain the section using
17 temperature?

18 Q. Yes, the entire thing if you could, please.

19 A. Okay. So there are strength requirements that
20 your poles, conductors, insulators, anything you use,
21 they must be able to extend. This rule tells you exactly
22 what are these requirements.

23 For line loading any time you're designing a
24 facility or building a facility that is 3,000 feet above
25 sea level or below, you use requirement of light loading.
26 So basically what you do when you're designing your

1 system, you have to assume wind pressure of 8 pounds per
2 feet -- per square -- 8 pounds per square feet hitting
3 the surface of the facility or design. The 8 pounds per
4 square feet is used on cylindrical surfaces like
5 conductors or like poles.

6 If it was flat surface like, for example, a
7 transmission tower has bars that are flat, then you have
8 to assume that 13 pounds per square foot is hitting those
9 surfaces. That's how you design your system. And then
10 you pick up and then you choose which facility can
11 support this wind pressure.

12 Now, also -- what's also we haven't gotten to
13 yet is the safety factors because this 8 pounds per
14 square foot or 13 pounds per square foot does not include
15 the affect of the safety factor.

16 Do you want me tell about the safety factor?

17 Q. Go ahead.

18 A. Okay. So safety factor is a safety margin that
19 engineers use and the company use when they are designing
20 any structures. For example, if you want to design a
21 chair that supports somebody that weigh 100 pounds,
22 you're not going to design a chair that can only support
23 100 pounds or that could only withstand 100 pounds. If
24 you do so, you'll have a safety factor of one. The chair
25 can support 100 pounds and the person sitting on it weigh
26 100 pounds. If you give a person the chair that weighs

1 200 pounds, the chair will break.

2 So to accommodate for this there is something
3 called a safety factor. You have safety of margin. So
4 if I'm going to design a chair for a person who weigh 100
5 pound and I design a chair that can withstand 300 pounds,
6 the safety factor will be three. It's three times -- the
7 chair has three times strength as the load that is
8 imposed on it.

9 If I decide to design a chair that can support
10 400 pounds, which means the safety factor will be four,
11 the chair can support 400 pounds and we have a person who
12 is 100 pounds who is going to sit on it. That's very
13 important because especially on wood poles -- because
14 wood poles deteriorate all the time. They don't keep the
15 same strength as when they're installed. So you have to
16 account for this deterioration.

17 Now, this safety factor is only -- there are two
18 safety factors. One is at the time of construction. So
19 when you construct the facility, you have to account for
20 safety factor, let's say, four. And then you have to
21 replace your facilities at any time when the safety
22 factor is used by two-thirds of the design safety factor.

23 Am I getting too technical?

24 Q. No, no. You've done a great job explaining.

25 A. Okay. So if you go back to the chair. For
26 example, let's suppose the chair had a safety factor of

1 four. And you put somebody on it. You know the maximum
2 is 100 pound. So you want to design a chair that can
3 support 400 pound at the time of construction. And the
4 safety -- and then you need to replace the chair or
5 reinforce it before the safety factor falls two-thirds of
6 the actual design safety factors.

7 So in this case if the design safety factor is
8 four, two-thirds of four is 2.67. So in this case if the
9 chair is unable to support 2.67 times 100 pounds, which
10 is the load component which is 267 pounds, then you
11 need to replace the chair. So any time the chair cannot
12 support more than 267 pounds, you are wanting to replace
13 it even though it only support 100 pound.

14 So this is what a safety factor is. So what
15 this rule says is when you are designing a facility, you
16 need to consider wind pressure of 8 pounds per square
17 foot that is hitting the pole. And if you take the
18 safety factor into account at the time of design, you
19 need to assume 32 pounds per square foot is hitting your
20 pole. And you will use a pole that can support 32 pounds
21 per square feet at the time of construction. That is for
22 round surfaces.

23 For lattice surfaces or flat surfaces you will
24 assume 13 pounds per square inch times the safety factor
25 that are hitting the pole or the flat surface. In this,
26 case the tower.

1 Now, there are other things that go on in the
2 design that is for the pole. But then you have other
3 things you need to account for. So we accounted for the
4 wind. Now we have to account for temperature.

5 So pole or transmission tower also have
6 conductors installed on them. Conductors -- they
7 contract and they expand based on heat and environment.
8 So during hot weather the conductor expand and during
9 cold weather the conductor contract.

10 What happens is when the conductor contracts,
11 they cause more tension. So here you have to assume
12 25 degrees. That is cold weather. This will give you
13 the maximum tension of the conductors to include in your
14 calculations. Again, when you're trying to do full load
15 calculations, you want to know: Okay, how much of the
16 load I am going to impose on this structure, on a pole,
17 or on transmission towers.

18 This will tell you. Okay. So if you want to
19 know what kind of load you're going to impose on the
20 structures, you have to take each piece by itself and you
21 see how much is -- how much load this piece is imposing
22 on this pole. First, you do the calculation for the
23 wind. This is wind at 8 pounds per square feet pressure.

24 Then you come to the equipment. So for the
25 equipment, for conductors you will say: Okay. What is
26 the maximum tension on this conductor at 25 degrees? And

1 this is the tension you use in your calculation to
2 determine what kind of load I'm going to install on a
3 pole.

4 The 130 degree Fahrenheit you use it -- part of
5 your pole loading calculation is you want to know the
6 tension, the weight of equipment, and how far is it from
7 the ground? For conductors -- because they expand and
8 they contract, their clearance from the ground varies.
9 So what this rule is saying is the way you determine the
10 clearance from the ground in order to include in your
11 calculation you will assume 130 degree Fahrenheit of
12 temperature of the conductors.

13 This cannot -- when you assume this, this is
14 going to cause more sag on the conductor because it's
15 going to expand and the clearance from the ground will be
16 used. So this is the clearance that you will use when
17 you do your pole load calculation.

18 Q. Let's skip ahead real quick -- and then we'll
19 come back and talk about this a little bit more -- to
20 Rule 49.5. And this is for insulators. If you could
21 read to that us.

22 A. "Insulators, supports, clamps, and other
23 miscellaneous attachments shall be designed to withstand,
24 with at least the safety factors specified in Rule 44,
25 the mechanical stress to which they are subjected by
26 conductors, wires or structures, under the loading

1 conditions as specified in Rule 43. Pin insulators shall
2 effectively engage the thread of the pin for at least two
3 and one-half turns."

4 Q. So we just talked about Rule 43, Rule 43.2,
5 Rule 44, and now 49.5 which directly applies to
6 insulators. How do these rules play into your audit,
7 maintenance, and inspection programs?

8 A. Okay. So for maintenance and inspection
9 programs we make a distinguish -- distinction between
10 distribution facilities and transmission facilities. So
11 the distribution facilities are more -- they include more
12 review than transmission facilities because this is where
13 most of the problems occur.

14 Now, how does this play in our audit? Part of
15 our audit is we will ask the utilities for their pole
16 loading calculations during our audits. And we determine
17 whether the number that they have used to determine their
18 safety factors determine the extent of whether the
19 facilities comply with these rules or not.

20 Q. Okay. So the safety factors -- do they just
21 apply to things as they're built or as they've worn?

22 A. Okay. So there are two safety factors. There's
23 one design safety factors and we can call the other one
24 the maintenance safety factors. So you apply it -- you
25 apply the design safety factors when you are building
26 something. And then you have to replace the equipment

1 before the safety factor falls below the maintenance
2 safety factor which is two-thirds of the design safety
3 factor.

4 Q. So explain that concept to us, this two-thirds
5 of the design safety factors.

6 A. Okay. So let's go back to the chair example I
7 gave. So if something was intended to support 100 pound,
8 you apply four safety factors. A safety factor of four.
9 So you design it to withstand 400 pound. This is a
10 construction safety factor.

11 In a case, for example, of a pole, the pole must
12 be designed to withstand the wind pressure of 8 pounds
13 per square feet times the construction safety factor. So
14 the pole must be able to withstand 32 pounds per square
15 in or square foot at the time of the construction. The
16 pole deteriorates. You add new equipment to the pole.
17 So what happened is the safety factors are going to be
18 reduced.

19 The rules allow for reduction for the safety
20 factor up to a certain level. Any time the safety factor
21 falls below this level, then you need to replace the
22 pole.

23 Go back to the chair example. With a safety
24 factor of four, GO 95 allows for not more than two-thirds
25 reduction which means any time the safety factor of the
26 chair falls below 2.67, you need to replace the chair or

1 fix it.

2 So if the chair was designed to support 400
3 pound with a safety factor of four and then if the safety
4 factor falls to 2.67 which mean you have to multiply 100
5 by 2.67 which means now the chair can only support
6 267 pounds. Any time the chair cannot support anything
7 more than 267 pounds you need to replace it even though
8 only 100 pounds of support is imposed.

9 So it's the same concept with a pole. So for
10 wind speed any time the pole or the facility is not able
11 to withstand 8 pound of pressure times -- in this case
12 instead of four, 2.67 or whatever the number is, you need
13 to replace the facility.

14 Q. So does this apply to all the components on, for
15 instance, a transmission tower?

16 A. Every single -- yes, all the hardware. They may
17 have different safety factors. But when it comes to
18 strength, every component has its own safety factors.

19 Q. Right. Are you familiar with what the safety
20 factors would be for a C-hook holding a jumper conductor
21 on the tower?

22 A. There is a table that tells you what the safety
23 factor should be.

24 Q. Is that contained within GO 95?

25 A. Yes, it is.

26 Q. And is this Table 8 that we're talking about or

1 can you identify for us which -- what table it is?

2 A. It's Table 4.

3 Q. Table 4?

4 A. Table 4.

5 Q. Let see. What section is that in?

6 A. It's in Section 4, page 10.

7 Q. I'm going the wrong way.

8 So where on this Table 4 would the C-hooks that
9 would hold insulators to the tower or connect the
10 insulators to the tower be listed?

11 A. Okay. So you'll see the first one where it says
12 "Conductors, splices, and conductor fastenings (other
13 than tie wires)."

14 Q. Yes, Sir.

15 A. Yeah, this would apply to anything that support
16 conductor.

17 Q. Okay.

18 A. The one specific for the hook would be a part of
19 the insulator.

20 Q. Right.

21 A. Okay. So if you look where it says "Pole line
22 hardware."

23 Q. Right.

24 A. Yeah. So this would be in the pole line
25 hardware.

26 Q. Okay. And then down at the bottom under (a),

1 (b), and (c) we have some special rules for insulators?

2 A. Yes.

3 Q. So "(a) Insulators are to be replaced before
4 safety factors have been reduced (due to the
5 deterioration or changes in construction, arrangement, or
6 other conditions subsequent to installation) to less than
7 95 percent of the safety factor specified in Rule 44.1."

8 A. That's correct.

9 Q. And then "(b) Insulator are to be replaced
10 before safety factors have been reduced (due to
11 deterioration or changes in construction, arrangements
12 or, other conditions subsequent to installation) to less
13 than 75 percent of the safety factor specified in Rule
14 44.1."

15 And so how do you make a difference -- how do
16 you decide whether (a) or (b) -- whether it's 95 percent
17 or 75 percent?

18 A. So (a) and (b) here is based on the rate of
19 construction if it's grade B construction or grade C
20 construction.

21 Q. Okay. And how do we determine if it's grade B
22 or grade C? How do we find that out?

23 A. Okay. So if you take a look at Rule 42, which
24 is page 5 of this section, it talks about grade B and
25 grade C construction. It defines what grade B and grade
26 C construction.

1 And then the next page on Table 3 there is a
2 table that would tell you what kind of construction this
3 should be considered A, B, or C.

4 Q. Okay. Thank you.

5 All right. Let's move away now for a second
6 from GO 95. We had talked in here -- you should have in
7 front of you 633. This is going to be another document.
8 It should be in the stack of documents when you moved
9 them. You should have 633. You see that?

10 A. Yes, Sir.

11 Q. And what is 633?

12 A. It's General Order 165.

13 Q. What is General Order 165?

14 A. General Order 165 is the general order that
15 establish the rules of inspections. Basically, it has a
16 requirement of inspection cycles, how often a utility
17 should inspect their system, and what they should do when
18 they inspect their system. So it lays down the
19 procedures on how an inspection should be conducted.

20 Q. All right. And this is what was referenced in
21 Rule -- GO 95 Rule 31.2 where it says "Supply line shall
22 be inspected in compliance with the requirements of GO
23 165." Correct?

24 A. I'm not sure if that's 31.1.

25 Q. Yeah. 31.2: Inspection of Lines.

26 A. Yes.

1 Q. Okay. So let's get to the applicable section of
2 GO 165 which is Subsection 4; correct?

3 A. Correct.

4 Q. This is short, concise, and to the point. So
5 can you read what GO 165 tells us about the inspection
6 and maintenance for transmission lines.

7 A. "Transmission Facilities: Each utility shall
8 prepare and follow procedures for conducting inspections
9 and maintenance activities for transmission lines.

10 Each utility shall maintain records of
11 inspection and maintenance activities. Commission staff
12 shall be permitted to inspect records and procedures
13 consistent with Public Utilities Code Section 314(a)."

14 Q. So is this the heart of what your unit does
15 right here?

16 A. When it comes to transmission facilities?

17 Q. Yes.

18 A. No.

19 Q. Okay. You said your unit does audits; correct?

20 A. Correct.

21 Q. And what are they auditing?

22 A. Okay. So we're auditing compliance with GO 95
23 and GO 165. GO 95 also have inspections.

24 Q. Right.

25 A. And GO 95 also requires the utility to do
26 certain things for its covered violations. These apply

1 to more distribution and transmission. Now, there are
2 certain things in GO 95 that the utility is required to
3 do that are not included here. For example, the
4 utilities when you do their audit, you have to document
5 the violations and to give the corrective action dates.
6 That's not included here. We expect the utility to do
7 this.

8 Q. Okay. So GO 165 requires each utility to
9 prepare and follow procedures for conducting inspections
10 and maintenance activity for transmission lines; correct?

11 A. Correct.

12 Q. Does the CPUC mandate or supervise the policies
13 that the investor-owned utilities adopt or conduct the
14 inspections and maintenance on their transmission lines?

15 A. Okay. So let me see if I can answer the
16 question. So what you're asking is do we have -- do we
17 dictate how they do their inspection?

18 Q. Well, even before that do you dictate their --
19 what policies they must set for their inspections?

20 A. No. We just tell them what they should
21 accomplish or what the end result should be.

22 Q. Okay. And ultimately, what is the result? What
23 is it the result should be?

24 A. Compliance with GO 95.

25 Q. Okay. And that goes back to 31.1; is that
26 correct?

1 A. 31.1, 31.2, yes.

2 Q. That essentially says it has to be safe?

3 A. Safe, reliable. It has to be in compliance with
4 GO 95, yes.

5 Q. Right. Okay. But you don't tell them how to do
6 their -- you know, set their policies for when they're
7 going to do inspections and how they're going to do
8 inspections; correct?

9 A. No.

10 Q. When you do your audits of investor-owned
11 utilities, for instance, PG&E, do you go through their
12 policies, for instance, the inspection cycles or how
13 often they inspect and pass judgment on those policies?

14 A. So our engineers when they do their audit,
15 they're supposed to go over there. Before they do their
16 audit, they review the previous audits. They review any
17 specific problems that the district or the area is
18 experiencing to have an idea about the area they will be
19 auditing.

20 And during the audit our engineers talk to --
21 they're supposed to talk to the inspectors that are
22 conducting the audits. They're supposed to review the
23 records and to formulate an opinion as to is the utility
24 conducting their inspection in a time that will allow
25 them to detect problems in time? Are they fixing
26 whatever they're discovering on time? And is their

1 interval cycle appropriate or not? Because when it comes
2 to transmission facilities, there's no specified interval
3 cycle defined by any general orders as to the
4 distribution facilities.

5 So our engineers should -- when they do their
6 audit, they should make an opinion whether the inspection
7 cycle for the transmission facility is enough to comply
8 with GO 95.

9 Q. Okay. Well, let's talk about the inspections
10 themselves. You should have in front of you Exhibit 634.
11 See that?

12 A. Yes.

13 Q. All right. And CPUC has a website; correct?

14 A. Correct.

15 Q. And that website is publically available;
16 correct?

17 A. Correct.

18 Q. And what is 634?

19 A. Exhibit 634 - this says every time we do an
20 audit, we post our audit reports on line. 634 is a link
21 to all of our audit reports.

22 Q. Great. So let's get into 634, 2018 audits
23 broken down by distribution level and communication
24 infrastructure provider. Is that correct?

25 A. That's correct.

26 Q. Did CPUC do any transmission audits in 2018?

1 A. If we did, it will be here.

2 Q. Okay. So this doesn't show any were done. So
3 that would indicate that none were done?

4 A. If it doesn't show any were done or we did one
5 or whatever and we did not post them, but I am not aware
6 of any audit that we did that we did not post.

7 Q. Okay. 2017. Again, we have distribution level
8 audits, we have communication, infrastructure providers
9 but no transmission level audits; correct?

10 A. If it doesn't have it, then that is correct.

11 Q. For 2016 we show distribution level, now
12 substation level, transmission level, and communication
13 infrastructure provider level; correct?

14 A. Correct.

15 Q. So in 2016 the CPUC did do transmission level
16 audits of the investor-owned utilities?

17 A. Yes, that's what it shows.

18 Q. And which ones were done in 2016?

19 A. So this one shows that PG&E Moss Landing,
20 Imperial Irrigation District El Centro, PG&E Midway
21 Region, Plumas Sierra Rural Electric Co-op, and PG&E
22 Victor Region.

23 Q. Okay. 2015. Is this correct that CPUC did four
24 transmission level audits?

25 A. If that's what it says, yes.

26 Q. And that's all from your website showing what

1 you did?

2 A. Yes.

3 Q. 2014 five transmission level audits; correct?

4 A. That's correct.

5 Q. 2013 three transmission level audits?

6 A. That's correct.

7 Q. And 2012 three transmission level audits;
8 correct?

9 A. That's correct.

10 Q. Now, prior to 2012 did you do any transmission
11 level audits?

12 A. No, we did not.

13 Q. Why not?

14 A. We didn't have a program for transmission
15 facilities. Our program started in 2012.

16 Q. Okay. So you did them in 2012, 2013, 2014,
17 2015, and 2016; correct?

18 A. Correct.

19 Q. Have you ever done a transmission level audit of
20 the North Valley Division of PG&E?

21 A. Myself?

22 Q. Or your unit?

23 A. I'm not familiar with the PG&E system because I
24 work in Los Angeles office, but I know this year we have
25 done an audit. I don't know which region for PG&E, but
26 it's not posted yet because the report is not final.

1 Q. Okay. But prior to 2018, according at least
2 from what's been posted, you've never done an audit of
3 the North Valley Division of PG&E?

4 A. If it's not here, we have not done it.

5 Q. All right. So let's talk about audits itself.
6 One of the audits that was listed there was the Victor
7 Division that you did an audit in 2016. So look at
8 Exhibit 635 in front of me or in front of you.

9 I'm sorry. And do you recognize 635?

10 A. Yes, I do.

11 Q. What is 635?

12 A. It's an audit report that we sent to the utility
13 after our audit.

14 Q. And this audit report is signed by yourself?

15 A. That's correct.

16 Q. All right. So this is an audit somewhere else
17 in the State of California in the PG&E system; correct?

18 A. Correct.

19 Q. Specifically, this is the PG&E Victor Division?

20 A. Correct.

21 Q. So walk us through what goes into a CPUC audit
22 and SED audit of PG&E transmission level facilities.

23 A. So we have an audit procedure that the engineers
24 are supposed to follow when they do an audit. So during
25 the audit we meet with the -- we supposed to meet with
26 the staff from PG&E that do their own inspections and

1 maintenance. We inspected inspection records. We see
2 how often are they inspecting their facilities, when was
3 the last time the facility was inspected, are they
4 following their procedures that they have established in
5 inspecting their facilities.

6 We look whether or not they are documenting any
7 violations they have discovered, are they correcting the
8 violation that they have discovered, are they
9 prioritizing the violations that they are discovering as
10 required by GO 95 Rule 18, are they giving corrective
11 action dates for those violations, and we talk to the
12 inspectors to see if the inspectors are even qualified to
13 do an inspection of their system.

14 Then we take samples from the -- from their
15 facilities to the field. And we actually go and we see:
16 Okay. Did they actually document all the violations
17 during the last inspection?

18 I'm talking about PG&E. Did they actually
19 correct those violations that they discovered like
20 they're saying to just confirm that their records are
21 accurate.

22 Q. All right. So let's go on to page 2 of 635 and
23 starting off it talks about audit findings and
24 Subsection 1, records review. And it lists records that
25 were reviewed as part of the audit.

26 A. That's correct.

1 Q. And can you tell us exactly what records were
2 reviewed by your team as part of this audit?

3 A. Okay. So do you want me to read them?

4 Q. Sure.

5 A. "PG&E's GO 95 & GO 128 Inspection Program
6 Records."

7 Q. Now, let me stop you right there. What is
8 GO 128? We haven't talked about that.

9 A. GO 128 is a General Order that is for
10 underground facilities.

11 Q. Okay. Go ahead.

12 A. "Circuit map for Stockton and surrounding area;
13 Closed and open notifications from 2015 & 2016; Pole
14 loading and intrusive test records; PG&E's procedures on
15 infrared inspections, insulator washing, and metal pole
16 inspections; Field inspection records for 10 overhead
17 circuits."

18 Q. What does it mean "Field inspection records for
19 10 overhead circuits"? What are that?

20 A. So if you view the actual inspection for 10
21 different circuits that PG&E inspected that they have
22 documented.

23 Q. Okay. And then the next section is "Field
24 Inspections. My staff inspected the following
25 facilities."

26 Explain to us this.

1 A. So these are the actual facility either poles or
2 towers that we inspected.

3 Q. Okay. So you -- your people inspected five
4 consecutive towers on the Tesla-Tracy 500 kV line?

5 A. Those are the towers, yes.

6 Q. Right. And then one, two, three, four, five,
7 six, seven, eight. Eight towers on the Webber-Tesla
8 230 kV line?

9 A. Correct.

10 Q. And the towers that you did on the Webber -- or
11 your team did on the Webber-Tesla 248, 237, 223, 224, 25,
12 22 --

13 So between 220 and 248; correct?

14 A. Correct.

15 Q. So we assume that that line had at least 248
16 towers on it. Would that be fair to say?

17 A. I really don't know.

18 Q. Okay. Then you did one, two, three, four, five,
19 six on the Tesla-Tracy line; is that correct? That's
20 what it says.

21 A. That's correct.

22 Q. Okay. And then we go in -- there's more here.
23 Five towers on the Kyoho Tap 115 kV line. That's what
24 the report indicates.

25 All right. So when you go out and physically
26 inspect -- when your people go out and physically inspect

1 these facilities, explain to us what they're doing.

2 A. First, we inspecting to confirm that the
3 utility's records are accurate. So we go to a tower that
4 has been inspected previously or pole or whatever. So we
5 inspect it to see if there are any violations of GO 95.
6 And if there are, we determine whether the utility has
7 actually documented these violations and has a corrective
8 action plan to correct them.

9 So we are trying to confirm that the records
10 that are provided to us by the utilities are accurate.
11 That is the first thing we do. The second thing is we
12 just confirm that they fixed what they told us we fixed.

13 And then we will just to get an idea about the
14 inspection system -- for example, if we start finding
15 violations that the utility does not document, they are
16 not in the record, this will tell us that your inspection
17 program is not accurate. It's not -- I mean, it's not
18 credible because we're finding violations that are not
19 documented by your own inspectors.

20 Q. How do you decide which facilities to go out and
21 spot check?

22 A. We don't. We just pick some facilities.

23 Q. Okay. I mean, what factors go into which
24 facilities that your auditors are going to go out and --
25 your inspectors are going to go out and check the work of
26 PG&E?

1 A. Okay. So as I said before, before we do an
2 audit, the engineers supposed to review previous audit,
3 supposed to get complaint we received from the public in
4 the area. And we need to focus on those area. If we
5 know there's an area that has many complaint or we know
6 there's an area that we have received many incidents that
7 are in this area or if we know there's a specific problem
8 in an area, then the engineers would have to focus on
9 this area and spot check this area.

10 Otherwise, if they see something in the record
11 that may indicate problems for them, they may decide this
12 area. But we don't have a scientific method to decide
13 which area to go and spot check.

14 Q. Okay. Going on to your field inspections
15 document, we don't need to talk about that.

16 All right. For your auditing program and for
17 your supervision of the investor-owned utilities in the
18 state of California, how important is it that the
19 utilities keep complete and accurate inspection and
20 maintenance records?

21 A. It's extremely important especially when there's
22 no specific guideline of what to keep and what not to
23 keep. If the utility's records are not accurate, their
24 own inspection program is questionable. The people that
25 do their own inspections, the qualification is
26 questionable. We rely on the utility to give us correct

1 and thorough records. If we believe these records are
2 not accurate, then the entire program is not credible
3 anymore.

4 Q. So if inspections were routinely inspecting --
5 or inspectors were routinely inspecting tower structures
6 that no longer existed, would that -- what would that
7 tell you about a maintenance or an inspection program?

8 A. Well, this will tell us, first, there's a
9 problem with the certification of one of the inspectors.
10 There's a problem with how they keep records.

11 There is always an exception, but we have to get
12 to the bottom of it. So if PG&E or Edison or any
13 utilities are sending inspectors to inspect facilities
14 that don't exist, it's my opinion that the inspection
15 program is not in compliance with any safety rules.

16 Q. How about if the records don't accurately
17 reflect who actually did the inspections?

18 A. So what you're saying is if there's someone
19 else's name?

20 Q. So, for instance, if one person essentially acts
21 as a scribe and takes credit for doing an entire
22 inspection that was actually done at least partially by
23 other people.

24 A. Well, if the utility is aware of this, we will
25 look to see what have they done to correct it? Is it a
26 mistake by an individual or is it something systematic

1 that the company allowed to happen? It depends.

2 Q. Why is it important to you as the auditor, as
3 the regulator of the investor-owned utilities that
4 records clearly and correctly identify who did
5 inspections or maintenance?

6 A. Well, the reason it's important because part of
7 our audit is to talk to the inspectors who did the actual
8 inspection to see if they're qualified to do the right
9 type of inspection. Are they familiar with the rules?
10 Do they know how to identify problems? Do they know how
11 to identify violations?

12 So it's very important the qualifications the
13 inspectors have. It's very important. So it's important
14 for us to have the name of the actual person who did the
15 inspection.

16 MR. NOEL: Thank you. I have nothing further.

17 The jury have any questions for this witness?

18 Just a moment. We have some questions here.

19 [Conferring off the record.]

20 MR. NOEL: Okay. The jurors have some questions
21 for you. I'm going to ask you to -- read them to you
22 really quickly. We have gone over them. Actually, I'm
23 going to read them to you not quick.

24 **CONTINUED EXAMINATION**

25 BY MR. NOEL:

26 Q. Were you aware in November of 2018 or before

1 then of any inspection or audit of PG&E Caribou-Palermo
2 transmission lines that would indicate this line was not
3 in compliance with CPUC rules?

4 A. Myself I wasn't aware. I don't work for PG&E.
5 As I said, I work in the Los Angeles office. I deal
6 mostly with Edison. So personally, I'm not aware.
7 Someone else in the commission is aware probably. I
8 don't know.

9 Q. Would you characterize CPUC regulations as being
10 effective in maintaining the safety of lines?

11 A. Okay. So the rules in GO 95 are not rules that
12 ensure safety of communication line or electric line.
13 Somebody a long time ago decided that there's a certain
14 safety level that should be maintained and decided this
15 is the safety levels that is acceptable. And they came
16 up with these rules. That's why we have Rule 31.1 that
17 says if for any reason under local condition you need to
18 exceed this rule, we expect you to exceed this rule. But
19 again, I don't think there's any rule that guarantees
20 safety.

21 Q. Does the CPUC have any method for determining
22 the reliability of a utility's inspection program?

23 A. Okay. So we can determine whether the authority
24 is complying with the rules, whether the inspection
25 program is reliable or not. Again, our mandate is to
26 determine whether they comply with GO 95 or GO 128 or

1 GO 165.

2 Q. What, if any, enforcement mechanism does the
3 CPUC have to mandate compliance?

4 A. Okay. So we have three type of enforcement
5 actions. The first one is called notice of violation;
6 NOV. So we find a violation, we send the utility a NOP
7 and tell them "Here's the violation. Correct it."

8 The second rule of enforcement -- we were just
9 given this authority in 2015. It's a citation.
10 Basically, the only entity within the commission that
11 have the jurisdiction to impose penalty on the utility is
12 the commission itself, the commissioners. Staff don't
13 have this jurisdiction or authority.

14 In 2017 the commission gave the division
15 authority to issue a citation when necessary for a
16 violation of any of the commission rules. A citation is
17 limited to \$8 million per violation. And only the
18 division director have the authority to determine whether
19 to issue a citation or not.

20 So I cannot issue a citation. My staff cannot
21 issue a citation. The director will decide whether a
22 citation is warranted or not. And if the director decide
23 a citation is warranted, then we can issue one. And the
24 limit on the citation is up to \$8 million.

25 The third mechanism is called an OII; Order
26 Instituting Investigation. This is a formal proceeding

1 that's opened against a utility. In an OII it's like an
2 Order to Show Cause for the utility why they should not
3 be fined because of a violation they committed. It's a
4 proceeding that lasts like 16 months up to 18 months.

5 In it there can either be a supplement agreement
6 reached in which the utility will pay a penalty and will
7 revise their system and inspection system or whatever
8 policy they have or we go to a hearing and the commission
9 will make a decision about the final outcome.

10 But when an OII is issued, usually what's
11 involved in the penalty is some kind of change of the
12 utility policy. And it will be the commissioner who will
13 decide this, not the staff. This is completely different
14 mechanism of how to enforce our rules.

15 Q. So I believe you've already answered the next
16 question. To your knowledge have you or any of your
17 subordinates ever audited the PG&E overhead transmission
18 facility known by PG&E as the Caribou-Palermo line?

19 A. I have not audited it. Again, all of the audits
20 are here listed. They were listed. As I said, I became
21 aware that we have conducted an audit for PG&E this year.
22 I just don't know where because it's our San Francisco
23 office that handled this.

24 Q. Were you or anyone or to your knowledge anyone
25 in the CPUC aware that the Caribou-Palermo line was
26 almost 100 years old as of November 2018?

1 A. I don't know.

2 Q. Is there, to your knowledge, any CPUC safety
3 rule or regulation that requires overhead transmission
4 lines and associated equipment be inspected or audited
5 more frequently based upon the age of such equipment?

6 A. Of course. It's Rule 31.2. Rule 31.2 that's
7 how I define it. If you have a violation in your system,
8 you don't have any good inspection program because an
9 inspection program -- based on Rule 31.2 you need to
10 audit and inspect your facility to make sure it complies
11 with the rules, with every rule in GO 95. So if you have
12 a violation, you're not inspecting your facility as
13 frequently or as thoroughly.

14 That's how I define it.

15 MR. NOEL: Uh, we have one more.

16 [Conferring off the record.]

17 MR. NOEL: All right. So we've got one more
18 question here.

19 BY MR. NOEL:

20 Q. In your opinion, is it a violation to complete
21 an inspection on multiple days filling in the temperature
22 of the line and the sag distance from ground, basically
23 the clearance, by guessing what the temperature was on
24 the day that the inspection was done but without
25 physically taking a temperature at the locations?

26 So let me see if I can put this -- you're out

1 doing an inspection. Part of that inspection is
2 clearance measurements every mile or, you know, ever so
3 often sections. You don't take the temperatures as you
4 were doing the clearance and then later you go back and
5 add in a guesstimate as to the temperature. Would that
6 be a violation?

7 A. Okay. Okay. So when it comes to temperatures,
8 we're talking when you do your pole loading calculations
9 or installing something on your system. Many equations
10 are different. There are certain equations --

11 THE COURT REPORTER: I'm sorry. What is the
12 beginning of the sentence?

13 THE WITNESS: Okay. So the 103 degree Fahrenheit
14 we talked about, this is involved in the calculating and
15 the equation you use when you're installing in your
16 facilities. You need to -- when you do your pole loading
17 calculation, part of your calculation is tension times
18 the distance of your facility from the ground. And the
19 way you do it is you assume 130 degrees. This will give
20 the biggest sag and the shortest distance.

21 But when you do an inspection or an audit,
22 you're looking for clearance. Clearance requirements are
23 specified in GO 95. This is totally different.

24 So I don't know if that answers the question or
25 not.

26 MR. NOEL: Okay. Anything further?

1 It doesn't look like we have any further
2 questions for you. Madam Foreperson is going to read you
3 an admonishment and then you are done.

4 THE WITNESS: Okay.

5 GRAND JURY FOREPERSON: Mr. Daye, you are
6 admonished not to discuss or disclose at any time outside
7 of this jury room the questions that have been asked of
8 you or your answers until authorized by the grand jury or
9 the Court. A violation of these instructions on your
10 part may be the basis for a charge against you of
11 contempt of court. This does not preclude you from
12 discussing your legal rights with your own attorney.

13 Mr. Daye, what I have just said is a warning not
14 to discuss this case with anyone except the Court, your
15 lawyer, or the district attorney.

16 Do you have any questions?

17 THE WITNESS: No, Ma'am.

18 GRAND JURY FOREPERSON: Okay. Thank you for
19 your time today.

20 THE WITNESS: Thank you.

21
22 [DISCUSSION OMITTED.]

23
24 [Matter adjourned at 10:31 a.m.]

25 --oOo--
26

COURT REPORTER'S CERTIFICATE

This is to certify that I, Lisa McDermid Welch, a Certified Shorthand Reporter of the State of California was present at the time and place the foregoing grand jury proceedings were had and taken in the within matter; and that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings; and afterwards caused my said shorthand writing to be transcribed into typewriting; and the foregoing pages, beginning at the top of Page 1 to and including Page 64 hereof, constitute a full, true, accurate, and complete record of the proceedings.

DATED: This 6th day of June, 2022.

[Lisa McDermid Welch](#)

LISA MCDERMID WELCH, CSR, RPR
CSR LICENSE NO. 10928

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

BCSC-2019-GJ-01

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REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, NOVEMBER 5, 2019

VOLUME 24

OROVILLE, BUTTE COUNTY, CALIFORNIA

JENNIFER L. HUNT, CSR 10735, OFFICIAL COURT REPORTER

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FOR THE BUTTE COUNTY

DISTRICT ATTORNEY'S OFFICE:

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(Present) Marc Noel, Deputy District Attorney

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Oroville, California 95965

FOR THE STATE OF CALIFORNIA

DEPARTMENT OF JUSTICE

OFFICE OF THE ATTORNEY

GENERAL:

(Not present) Nicholas M. Fogg, Deputy Attorney General

(Not present) Megan Richards, Deputy Attorney General

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OROVILLE, BUTTE COUNTY, CALIFORNIA

TUESDAY, NOVEMBER 5, 2019

8:30 a.m.

(Confidential Grand Jury Proceedings)

[PROCEEDINGS OMITTED.]

[ROLL CALL OMITTED.]

[DISCUSSION OMITTED.]

GRAND JURY FOREPERSON: Mr. Manegold, before
you have a seat, would you please raise your right hand
to be sworn.

WILLIAM MANEGOLD

having been called as a witness in
the matter now pending, having been first
duly sworn, testifies as follows:

THE WITNESS: I do.

GRAND JURY FOREPERSON: Thank you. Have a
seat, please.

EXAMINATION

BY MR. NOEL

Q. Mr. Manegold, for the record, can you please
state your full name, spelling your last name.

A. William, William Joseph Manegold,

1 M-A-N-E-G-O-L-D.

2 Q. What do you do for a living, Mr. Manegold?

3 A. Retired.

4 Q. How long have you been retired?

5 A. Since near the beginning of 2014.

6 Q. I'm going to pull this microphone down for you.

7 A. Thanks.

8 Q. What did you do before you retired?

9 A. I worked for PG&E for 35 years.

10 Q. In what capacity?

11 A. Different jobs. When I retired, I was, like
12 the sign said, supervising engineer, but I had a lot of
13 different jobs in the 35 years I worked there.

14 Q. All right. Let's start from the beginning.
15 Walk us through your educational background.

16 A. I have a, I have a, I have a BS in engineering,
17 civil and nuclear engineering, from UC Berkeley. I have
18 a master's degree in geotechnical engineering from
19 Berkeley.

20 Q. When did you get your bachelor's degree in
21 engineering?

22 A. December '78.

23 Q. You said you had -- your degree was in two
24 types of engineering, civil and technical?

25 A. Civil and nuclear.

26 Q. I'm sorry, civil and nuclear. And when did you

1 get your master's?

2 A. June of 1983.

3 Q. What is geotechnical engineering?

4 A. It's the study of soil and buildings and how
5 they work with civil structures from tunneling, to dams,
6 to building foundations, earthquake design, anything to
7 do with the earth.

8 Q. Are you a licensed engineer?

9 A. I am.

10 Q. And what fields are you licensed in in
11 engineering?

12 A. In California, mechanical and civil.

13 Q. Just to remind us, what does a mechanical
14 engineer do?

15 A. As a mechanical engineer, it's a wide field,
16 but what I did was I worked on analysis of piping
17 systems.

18 Q. When did you start working for PG&E?

19 A. January of 1979.

20 Q. Walk us through your PG&E career from the start
21 all the way up to 2005.

22 A. I started as a field engineer at Diablo Canyon
23 Nuclear Power Plant, as I did design work there as well
24 as oversaw construction of the facilities. I worked
25 there until 1982 when I transferred to our San Francisco
26 office and oversaw a design group also working on Diablo

1 Canyon. I worked there until the fall of that year when
2 I went back to school for my master's degree.

3 In June of 1983, I graduated, I went back to
4 work for PG&E. And at this time I was working at Diablo
5 Canyon Nuclear Power Plant again. And I worked there
6 until I think spring of 1984 when I took a job at the
7 Mechanical Engineering Department. And I worked on our
8 fossil fuel power plants. It would be like -- at the
9 time, that was the Pittsburgh Power Plant, Contra Costa,
10 Moss Landing, Morro Bay, and Avon, Martinez.

11 And then, after about I believe six months or a
12 year, I took a job as an estimating -- not estimating --
13 a design unit supervisor overseeing design of piping
14 facilities at all our power plants. And I worked there
15 until, I don't remember the year, it was '85, '86, I took
16 a rotational assignment in our Steam Generation
17 Department. That was the department of PG&E that ran the
18 power plants. And I worked on a system, a management
19 system that we installed in the plants trying to automate
20 how we did our work.

21 I came back to the Mechanical Nuclear
22 Engineering Department in the late '80s, I don't remember
23 the year, as an instrument and controls engineer. And I
24 did design, worked on the design of instrument and
25 controls systems for our Pittsburgh Power Plant.

26 In the late '80s we reorganized our system and

1 I took a new job as a design supervisor for our
2 electrical and mechanical systems at the power plants.
3 And I worked there until I think 1996.

4 And I took a job in our De Anza division in
5 Cupertino as the gas planner and project manager for
6 different sorts of relocation projects in De Anza.

7 And in 1998 I took a job in our Fremont office
8 as the supervisor of the design group that designed gas
9 and electric distribution facilities in Fremont, Newark,
10 and Union City.

11 In 2005, I took a job in our Gas Transmission
12 Department as a senior engineer in our system integrity
13 group.

14 And in September of, September-October time
15 period of 2006, I became the supervisor of the, of the,
16 of the Integrity Management Group in Walnut Creek. And I
17 worked there until I think June of 2011 when I
18 transferred to our Pipeline Safety Enhancement Program,
19 which was developed in the aftermath of San Bruno. I
20 worked there until I retired, ultimately retiring as a
21 supervising engineer.

22 Q. What is Diablo Canyon?

23 A. It's a nuclear power plant.

24 Q. Is it a nuclear power plant or the nuclear
25 power plant?

26 A. It's the only operating nuclear power plant in

1 the state of California right now, commercial nuclear
2 power plant.

3 Q. What was your jobs with the Diablo Canyon?

4 A. In the Construction Department, I did design
5 work for what we call small bore piping. And I also
6 oversaw projects like the reconstruction of pipe supports
7 for the containment spray rings at Diablo Canyon. And
8 I'm trying to remember what other products I oversaw. I
9 think we did some work -- after Three Mile Island we did
10 work on the, a new system, the reactor heading. In the
11 event of a melt down, hydrogen can built up to --

12 (Court reporter interrupted proceeding.)

13 A. To get the hydrogen from the reactor head. So
14 I oversaw some of that work.

15 Q. And what is a field engineer? What was your
16 job as a field engineer is probably a better way to say
17 it.

18 A. Those things that I just described.

19 Q. And you said later you were a mechanical and
20 nuclear engineer?

21 A. I worked in the Mechanical and Nuclear
22 Engineering Department.

23 Q. Okay. What is that?

24 A. It was the Engineering Department at PG&E that
25 did the, that did the responsible engineering work for
26 the nuclear and non-nuclear power plant at PG&E, which

1 included everything except for the hydroplant.

2 Q. During your career with PG&E, did you ever work
3 in the Electrical Transmission division?

4 A. No.

5 Q. All right. Now, we want to concentrate on your
6 time in the Integrity Management division of the Gas
7 Transmission. So 2005 to 2011; is that correct?

8 A. Yes.

9 Q. So describe for us further your first job when
10 you came into the Gas Transmission, the Integrity
11 Management Program.

12 A. The first job that I had was to review audit
13 change log in our GIS system. And I -- do you want me to
14 describe what that is?

15 Q. I was going to ask you, what is the audit
16 change log.

17 A. The audit change log was a computerized system
18 that tracked the changes to our GIS system on a daily
19 basis for fields that were important to the System
20 Integrity Group.

21 GIS, Geographic Information System, was a
22 mapping system that we used to track all our transmission
23 lines. And GIS is a system that maps things with
24 databases and allows you to add different layers,
25 depending on what you want to look at. So one layer
26 might be the physical arrangement of the pipeline, saying

1 that it runs down this street, that street. Another
2 layer might be this is where all the landslides are in
3 the area. Another layer might be these are all the
4 earthquake faults. Another layer was, and the one that I
5 was most concerned about, was pipeline features; things
6 like the pipe diameter, the seam type, the coatings, the
7 year the pipe was installed, the -- any test information
8 that had been transferred into GIS. And there's probably
9 60 or 70 other fields.

10 Then there are a whole bunch of other layers
11 that are, that may or may not be important to the work
12 that I did. But the system was widely used, and if there
13 was something that was important to the group, there
14 might be a layer associated with that. Might be things
15 like parcel data, like where houses are along -- within
16 our service territory that we would then lay down on top
17 of that map where all our piping facilities were in
18 relation to those buildings.

19 Q. Why is the audit, why is the audit change log
20 important to the System Integrity Group?

21 A. Probably forgetting, probably forgetting some
22 of the reasons, but the most, probably the most important
23 reason was to see on a fairly current basis what new
24 information that had come into the system might tell us
25 about plans that we already had in the works for the
26 pipelines. So if the pipeline diameter changed, that

1 could affect whether it was in a high consequence area or
2 not.

3 Under the System Integrity rule, which is what
4 the System Integrity Group was concerned about, the HCA
5 was defined, in large part, by the diameter of the pipe.
6 And so a change in that piece of information could change
7 whether we considered it in or out of our program.

8 Q. What does the Integrity Management Group do?

9 A. There's a whole bunch of stuff. I don't think
10 I could remember it all. But we described it in our
11 procedure, RMP 6, which was a document we prepared to
12 comply with the federal code of regulations for
13 pipelines, 49 CFR 192, Subpart O.

14 Q. All right. So you started off in the audit,
15 doing the audit change logs, then you said in 2006 you
16 were promoted?

17 A. That's correct.

18 Q. So what was your next job?

19 A. I was a supervisor of the group that I had been
20 part of.

21

22 (Grand Jury Exhibit 636 was marked for identification.)

23

24 Q. So I'm going to break this down. You have in
25 front of you Exhibit 636. I have it up on the big board.
26 Do you recognize Exhibit 636?

1 A. I recognize most of the names but not all of
2 them.

3 Q. Okay. Do you recognize what 636 is?

4 A. It's an organization chart.

5 Q. Okay. And an organization chart from May 14th,
6 2010?

7 A. That's what it says, yes.

8 Q. All right. So walk us through this. This is
9 for the Integrity Management Group; correct?

10 A. Correct.

11 Q. And who was the manager of the Integrity
12 Management Group?

13 A. Sara Burke.

14 Q. Did Sara Burke have another name that she used?

15 A. Well, Sara was married at one point and I don't
16 remember if Burke or Peralto (phonetic) is her married
17 name or maiden name.

18 Q. Okay. So Sara Burke and Sara Peralto are the
19 same person?

20 A. Yes.

21 Q. She at some point changed her name during the
22 time you were in the unit?

23 A. Yes, sir.

24 Q. All right. Sara was your boss; is that
25 correct?

26 A. In May of 2010, yes.

1 Q. All right. And then down below that, directly
2 below her, it says "Supervisor Supervising Engineer,
3 William Manegold." Is that you?

4 A. That is.

5 Q. And WJM8@PGE.COM, is that your email address?

6 A. It was, yes.

7 Q. Now, who were the other people, if you can tell
8 us?

9 A. Michael Boles, I don't recognize that name.
10 Alexis Jones-Anderson was the unit clerk. Frank Dauby
11 was the supervisor of the ILI group. And Kevin Armato
12 was the supervisor of the DA group.

13 Q. This is as of 2010?

14 A. May of 2010.

15 Q. Okay. Now, let's delve a little bit more into
16 yours, which is Exhibit 638.

17 A. 367?

18 Q. Maybe I put the wrong number on here. Should
19 be 637.

20 A. Okay.

21 Q. Put the wrong number on the slide, I'm sorry.

22

23 (Grand Jury Exhibit 637 was marked for identification.)

24

25 Q. Do you recognize 637?

26 A. I recognize this chart, yes.

1 Q. And what is Exhibit 637?

2 A. It's a list for the people who worked for me on

3 May 14th, 2010. That's what it says. I don't think it's

4 quite right, but --

5 Q. Okay. Why don't you think it's quite right?

6 A. I don't think Chang Liu worked for me in May.

7 And I don't remember that Jeremy did either. The other

8 names look right.

9 Q. Okay. So this is the division that you were

10 supervising in 2010?

11 A. In May, yes.

12 Q. And let's walk through the people. Who is

13 Janet Volker?

14 A. She was a gas engineer in our group.

15 Q. So is she an engineer?

16 A. Yes.

17 Q. A licensed engineer?

18 A. No, I don't think so. I don't think she had a

19 license.

20 Q. Trained engineer?

21 A. Yes.

22 Q. What is a Gas Technical Specialist?

23 A. I don't remember the form that I filled out to

24 create (NAME REDACTED's) position, but the work that he

25 did for us was support of our GIS System primarily.

26 Q. Okay. What is a Senior Application Support

1 Specialist?

2 A. Dave Baker supported a number of different
3 software programs that we used to provide field support
4 to our gas distribution system.

5 Q. What is a Gas Engineer Associate?

6 A. It's an entry-level engineering spot.

7 Q. That's occupied by someone named Calvin Lui?

8 A. Calvin Lui, yes.

9 Q. Is Calvin Lui an engineer?

10 A. Yes, he is.

11 Q. A licensed engineer?

12 A. Yes, he is, but I don't think he was at this
13 time.

14 Q. Okay. And what is Senior Transmission
15 Specialist?

16 A. R. L. Mulder also supported our GIS system.

17 Q. And then we have a Senior Consulting Gas
18 Engineer. What is that position?

19 A. Chih-Hung Lee did a number of things for us.
20 Probably the most important for System Integrity was he
21 was the lead author for our long-term Integrity
22 Management plans.

23 Q. And was Mr. Lee actually a licensed engineer?

24 A. Yes, he is.

25 Q. Okay. So let's talk about Risk Management now.
26 Define some terms. You've used the term HCA a couple of

1 times. Can you define that for us?

2 A. A HCA is a high consequence area. It's a, it's
3 an area around a pipeline that has enough people in it
4 that would be significantly impacted by a explosion to
5 the pipeline that the that the federal government
6 specifically defines it as an area that requires special,
7 that requires application of inspection rules under
8 Subpart O.

9 Q. Okay. So, so a place where there's a high
10 concentration of people, would that be fair to say?

11 A. High concentration of people within an area
12 that would be affected by an explosion of the pipeline.

13 Q. Okay. So downtown San Francisco, would that be
14 an HCA?

15 A. It would depend on the pipe, but most likely
16 yes.

17 Q. The middle of Death Valley, if there was a
18 transmission pipe running through there, would that be a
19 HCA?

20 A. If there was a visitor center, probably. If
21 there wasn't, probably not.

22 Q. Okay.

23 A. If it was near an area where a lot of people
24 would gather on a regular basis, then it would be. Like
25 a camping area, that could be an HCA, even in Death
26 Valley. And in San Francisco it might not be if the pipe

1 was small enough, because if the pipe was really small
2 the area that it affects would be small as well.

3 Q. So are there special rules, statutes, that deal
4 with inspection and maintenance of gas transmission pipes
5 in high consequence areas?

6 A. Yes, there are.

7 Q. Who make those rules?

8 A. The federal government.

9 Q. So those are codified?

10 A. And amended by the state governor.

11 Q. Okay. So talk to us about what is the job of
12 Risk Management.

13 A. So, like I said, our jobs -- I think I told you
14 when we spoke a few weeks ago, that the job changed with
15 time. In May our job was to identify HCAs, prioritize
16 them for assessment using risk management techniques;
17 identify threats to the pipeline; and then coordinate
18 remediation efforts after the assessments of pipelines
19 had been performed.

20 Q. When you say "risk management techniques," or
21 "risk assessment techniques," explain to us what you're
22 talking about.

23 A. The risk management techniques refers to how we
24 perform a risk analysis. There's different types of risk
25 analyses that are allowed under the code. There is
26 what's called SME method, which means subject matter

1 experts. The people that know the most about the thing
2 that you want to assess risk for will get together and
3 talk about all the things that go into causing a line to
4 be at risk. That's one kind of risk analysis.

5 Another kind of risk analysis is a relative
6 risk analysis. And that's one of the methods that we
7 used, is the second method we used. We used both subject
8 matter expert method that I just mentioned and a relative
9 risk method. And the relative risk method means that you
10 take a look at attributes of the pipe and you determine
11 not necessarily what the likelihood is of anything to
12 fail, but what the likelihood is that one thing will fail
13 before another.

14 So in a relative risk model, I could say, "I
15 think this thing in this component of the pipeline will
16 probably fail first, but I don't know if that's going to
17 be next year or a hundred years from now." I just know
18 that when I'm looking at things, I want to look at this
19 thing first.

20 Then there's probabilistic methods that
21 actually will tell you, yeah, there's a one-in-five
22 chance in the next year that this will fail. And those
23 kind of methods require a lot of information about the
24 pipeline.

25 And I think there's another method, too, and I
26 don't remember what it was. But we used primarily the

1 first two.

2 Q. All right. So when you referred to "when we
3 talked before," are you talking about the interview we
4 did with you in San Ramon a few weeks ago?

5 A. That's correct.

6 Q. That would have been myself, Investigator
7 Moore, and Investigator Haggerty?

8 A. Yes.

9 Q. And you've been interviewed about this stuff
10 multiple times; correct?

11 A. Yes, but not for several years, which is why
12 I'm kind of stumbling here a little bit.

13 Q. And you previously have been asked to testify
14 about all of these things in other court proceedings?

15 A. Yes.

16 Q. So one of the terms that, that you've talked
17 about in the past was "calculating and managing risk."
18 Can you explain that process to us first.

19 A. So we used risk analysis for, under the System
20 Integrity rules, for two things: One was to determine
21 which pipes we needed to assess first. And maybe I
22 should back up a little bit and explain a little bit
23 about the assessment process.

24 We have to, under the federal rules that were
25 passed in I think 2002, every pipeline, every
26 transmission pipeline owner needs to assess within ten

1 years all pipe that are within HCAs for risks as they are
2 prescribed in both the CFR 192 as well as in ASME B31.8S,
3 which is incorporated by reference into the code. And to
4 know which ones you're going to assess first, you need to
5 do a risk analysis, risk analysis so that you will
6 concentrate your assessment efforts on those that are
7 most at risk first. But all pipes need to be assessed in
8 the first ten years, then they need to be assessed
9 subsequently every, I think, seven years at a maximum,
10 and possibly more frequently, depending on what you might
11 find in your first assessment.

12 We used our relative risk assessment to make
13 that determination of which pipes needed to be assessed
14 first. And then once you've done your assessment, you
15 need to integrate the information that you got about that
16 assessment with all of the other information that you
17 have about the pipeline and make a determination as to,
18 one, when you're going to assess it the next time; and
19 two, what other remediation efforts you may need to
20 undertake.

21 So you may need to assess it in seven years,
22 but before the seven years is out, you may determine that
23 you need to recoat a pipeline or replace it. You may
24 need to put in ground movement monitoring stations. You
25 may need to do a number of different things.

26 So, so that's -- and that second risk analysis

1 is that subject matter expert, but that's what we did and
2 that's what my group did as part of risk assessment.

3 Q. Okay. Let's talk a little bit about assessing
4 risk. You said that in PG&E you used a relative risk
5 assessment; correct?

6 A. That was the first method we used, yes.

7 Q. If I understand right what you said, that means
8 you look at the likelihood of an event happening and the
9 consequences of the event happening; correct?

10 A. That's correct.

11 Q. So walk us through that.

12 A. You mean how we did it?

13 Q. What that means. How you'd assess something on
14 a relative risk.

15 A. Well, so the likelihood of an event is sort of
16 straightforward. It's what's the likelihood that a
17 particular part is going to fail.

18 It doesn't matter, as Marc said, whether it's
19 in Death Valley or San Francisco, what that number is
20 going to be. If -- you'll make some sort of a
21 determination. And in a relative risk model, again,
22 you're not saying it's going to happen this year or next
23 year, the year after, you're just going to say with a
24 relative risk model, "We think this piece is going to
25 fail before this other piece." And then the consequences
26 of that failure would be what would happen if it actually

1 fails.

2 And for the System Integrity rule, what they
3 were really looking at was, in defining HCAs, the pipe
4 blowing up. A double-ended rupture of the pipeline that
5 ignites. And then the pressure from the gas continues to
6 feed that fire.

7 And so there's all sorts of ways to calculate
8 the consequences, but for the work that we did in, in,
9 the risk analysis that we did for HCA work -- and I sort
10 of skipped over that we did risk analysis for non-HCA
11 work as well. But for the risk analysis that we did in
12 HCA work, we looked at the impact on people, whether --
13 how people would be affected by that event.

14 Other kinds of consequences, which weren't used
15 for our HCA analysis but were used for other work that we
16 did, might be what are the impacts on reliability to the
17 system? Would we lose gas to a certain town or area if
18 that line failed?

19 So those are other kinds of consequences, but
20 they weren't part of what we considered for the System
21 Integrity Program.

22 And when you take those two numbers together,
23 the likelihood of an event times the consequence, that's
24 how you wind up with the risk number.

25 Q. Okay. How do you prioritize assessments?

26 A. For -- we prioritize the highest risk items

1 first.

2 Q. Explain to us how this process works.

3 A. So under the federal code, it says you need to
4 assess the highest risk segments of your pipeline first,
5 but it doesn't tell you what a high-risk item is. Each
6 operator was left to their own devices as to figure out
7 what a high-risk number was.

8 For us, what we did was to assign weight to
9 each one of the threats that we looked at in our system
10 based on past leak history that we had. So, for
11 instance, the most common and usually the most dangerous
12 kind of leaks are third-party leaks, because -- they
13 happen because somebody hits the pipeline. And they tend
14 to be the most dangerous because somebody's right there
15 when it happens. The back hoe digs into the line or a
16 homeowner hits the service line with a shovel and the gas
17 comes out immediately and they're right there. Other
18 kinds of leaks -- and they also tend to be much larger.
19 If a back hoe hits a pipeline with a tooth and tears it
20 open, you get a tremendous amount of gas instantly.

21 Other kinds of leaks, like corrosion leaks, for
22 instance, might start out very small. You might get a
23 lot of warning. Somebody will call in and say, "I smell
24 gas in my neighborhood." And that could be true whether
25 that's a transmission line or distribution line.

26 So we weighed the different -- and I think I

1 may have wandered a little bit. Can you repeat your
2 question?

3 Q. We were just talking about how you prioritize
4 risk assessments.

5 A. So we look at all those things and we come up
6 with a number. And there are -- and those numbers are,
7 because it's a relative risk analysis, those numbers are
8 sort of arbitrary. We, we assign the numbers so that we
9 get a pretty big spread of numbers. We didn't want to
10 have -- there's about 25,000 pipe segments in PG&E's
11 system at that time, and we didn't want to have the
12 highest risk number to be 1 and the lowest risk number to
13 be .99 because we couldn't differentiate anything. So we
14 assigned the numbers so that we could get some spread.

15 And then we said, we took a certain percentage.
16 And I don't remember how exactly the number was arrived
17 at. I think it had to do with the number of standard
18 deviations above the mean. And we assigned all the pipe
19 segments that were above that number as high risk. And
20 we did those first.

21 But the intention was, again, that between 2002
22 and 2010 every pipe segment that was in an HCA would be
23 assessed and then every seven years after that would be
24 reassessed, at a minimum.

25 Q. You explained to us earlier what GIS is. Can
26 you explain to us the role of GIS in the risk management

1 and the calculating and managing of risk?

2 A. So it's two things. The -- but it's --
3 primarily, it's the location of the pipeline, which is
4 the mapping portion of GIS.

5 And then there's a database with the pipeline
6 attributes that I talked about. And those pipeline
7 attributes, primarily the diameter of the pipe and the
8 pressure determine whether, what the impact circle is,
9 how big an impact would occur if the pipeline were to
10 rupture. And then the, and then you count the buildings
11 and -- within that circle. And then the risk number
12 itself is arrived at based on a whole bunch of other
13 attributes, including the diameter of the pipeline, the
14 pressure in the line, the type of coating that it might
15 have, the leak history of the pipeline, the wall
16 thickness of the pipe. And I can't remember them all,
17 but there's probably 12 or 15 other attributes that we
18 looked at, maybe 20.

19 Q. Where do you find these attributes?

20 A. They're in GIS, but where we got them from
21 initially, we started with our Pipeline Survey Sheets as
22 well as project information.

23 So the GIS system was started in the mid '90s,
24 mid-early '90s.

25 Then, as projects and the Pipeline Survey
26 Sheets were returned, drawings that showed pipeline

1 attributes that were developed around 1970 to comply with
2 the new, what at that time was the new Pipeline Safety
3 Act of 1968, which required pipeline operators to
4 identify class locations along the pipeline and to make
5 sure that the pipelines were safely operating at certain
6 pressures within those class locations.

7 Q. How thorough was the information in GIS that
8 you needed for your risk assessments?

9 A. Could you be a little more specific about what
10 you mean by "thorough"?

11 Q. Were you able to find all the information that
12 you needed in the PG&E records to adequately assess risk?

13 A. We found what we needed to do to make the risk
14 assessment, but a lot of times that information was
15 assumed.

16 Q. One of those factors would be leak history;
17 correct?

18 A. Yes.

19 Q. And were you able to find leak history on
20 lines?

21 A. We did, but I don't know that it was complete.
22 And it was constantly being improved. And that's true
23 for all of GIS. It was started as a -- with a framework,
24 and it was built on as time went on, and it continually
25 got better.

26 Q. So explain to us the concept of assumed values

1 in GIS.

2 A. So it depends on the field that was involved,
3 but for some fields we wouldn't necessarily have
4 information, and we would make assumptions about the
5 value that, for that piece of data. I'd have to look at
6 the instructions which said this is, these are how we're
7 going to come up with assumed values. But, as an
8 example, I think, for instance, if we had a piece of pipe
9 in the ground and we didn't have a record to say what the
10 specified minimum yield strength was, the federal code
11 says if it's steel, you can assume that it will at least
12 have a strength of 24,000 pounds per square inch. And so
13 we would assume something like that. But that's very
14 conservative.

15 So, in addition to that, we supplemented that.
16 The code says there's -- as I'm talking I'm sort of
17 remembering some stuff. The code says that where you
18 don't have information, you can use information from a
19 book prepared by John Keefner in the, I think the late
20 '80s, maybe '90s, I'm not sure, about the history of
21 pipeline manufacturing in North America. And then if you
22 have reason to believe that you have better information,
23 you can use that.

24 And we used the information that was gathered
25 by two of our senior gas engineers who went back through
26 all our purchasing records and said, for instance, when

1 we had this size pipe, this is the minimum stress pipe
2 that we bought for any of our projects. It could go as
3 high as 60 ksi, but the lowest might have been 30 ksi.
4 So the 30 ksi value would have been the one that was
5 populated in GIS until we could show something better.

6 Q. So when you're assessing risk, you're looking
7 at the attributes of an individual pipe to determine the
8 likelihood of a failure; correct?

9 A. Correct.

10 Q. But the attributes that you're looking at
11 aren't real in many cases, those are assumed attributes
12 because PG&E didn't actually know what they had under the
13 ground; correct?

14 A. We thought they were conservative.

15 Q. Okay. But, first up, you didn't actually have
16 the information. PG&E didn't go out and examine each of
17 the pipes to determine what actually was underground;
18 correct?

19 A. Correct. Although, just to add on, that was
20 when we did the initial risk analysis. When we did the
21 assessments, we would pick up the pipe and look at it.

22 Q. So you kind of jumped the gun on me a little
23 bit there.

24 A. Sorry.

25 Q. Can you explain to us what it means that it's
26 conservative assumptions?

1 A. Well, conservative in that the assumption that
2 we made we thought would tend to result in a higher risk
3 number.

4 Q. And why is that important?

5 A. For purposes of the assessment, it would tend
6 to, it would mean that -- if it was high risk, it would
7 mean that it would be assessed in the first half of the
8 program.

9 Q. Okay. All right. So let's move on.

10 September 9th, 2010. Were you still in charge
11 of the Risk Management and HCA ID group?

12 A. Yes.

13 Q. What happened on September 9th, 2010?

14 A. Pipeline exploded in a neighborhood in San
15 Bruno and killed eight people.

16 Q. What kind of pipeline?

17 A. Steel pipeline. What do you mean?

18 Q. More general than that. Gas transmission?

19 A. Gas transmission line.

20 Q. All right. A PG&E gas transmission pipe?

21 A. Yes.

22 Q. And that's something that your group would have
23 been looking at; correct?

24 A. Yes.

25 Q. Assessing risk on; correct?

26 A. Yes.

1 Q. You said it killed eight people?

2 A. Yes.

3 Q. Destroyed at least 35 houses?

4 A. I thought it was higher, but yes.

5 Q. As a result, PG&E was charged with federal
6 felonies?

7 A. I don't think they ever tied the -- I think
8 that's what happened, but I don't think the Court ever
9 made that determination. I think the charges were not
10 about line 132.

11 Q. You testified as a witness in the federal
12 criminal trial?

13 A. Yes.

14 Q. You testified under a grant of immunity from
15 the United States Attorney; correct?

16 A. I did.

17 Q. Ultimately, PG&E was convicted of multiple
18 federal felonies, violations of the Pipeline Safety Act?

19 A. Correct.

20 Q. Okay. After San Bruno, you said sometime in
21 2011 you went to work in the Pipeline Safety Enhancement
22 Program?

23 A. I did.

24 Q. What was the Pipeline Safety Enhancement
25 Program?

26 A. It was a plan that, a program that initially

1 was conceived by PG&E and ultimately mandated by the
2 state for PG&E to upgrade its natural gas transmission
3 lines.

4 Q. This is something that was initiated in the
5 wake of the San Bruno explosion; correct?

6 A. Yes.

7 Marc, I'd like to go see my attorney, if I
8 could?

9 MR. NOEL: Okay.

10 THE WITNESS: Thanks.

11 MR. NOEL: Okay. I guess it's almost break
12 time anyway, so let's -- want to take a 15-minute break?

13 GRAND JURY FOREPERSON: Admonition first?

14 MR. NOEL: Pardon?

15 GRAND JURY FOREPERSON: Admonition first?

16 MR. NOEL: Yes. Absolutely.

17 THE WITNESS: To me?

18 MR. NOEL: She's going to give you an
19 admonition real quick.

20 GRAND JURY FOREPERSON: Mr. Manegold, you're
21 admonished not to discuss or disclose at any time outside
22 of this jury room the questions that have been asked of
23 you or your answers until authorized by the Grand Jury or
24 the Court. A violation of these instructions on your
25 part may be the basis for a charge against you of
26 contempt of court. This does not preclude you from

1 discussing your legal rights with your own attorney.

2 Mr. Manegold, what I have just said is a
3 warning not to discuss this case with anyone except the
4 Court, your lawyer, or the district attorney. Do you
5 have any questions?

6 THE WITNESS: No. I'm glad you told me that.
7 Thanks. I would have.

8 [DISCUSSION OMITTED.]

9 THE WITNESS: Supposed to tell me I'm still
10 under oath?

11 GRAND JURY FOREPERSON: Yes. You're still
12 under oath.

13 THE WITNESS: Thank you.

14 GRAND JURY FOREPERSON: Sorry.

15 Q. (By MR. NOEL) You've gone through this a few
16 times.

17 A. I have. I saw you looking like you were
18 expecting it.

19 There's one other thing I wanted to add about
20 the Org Charts that I should have mentioned before, which
21 is that Kevin had other duties besides being supervisor
22 of the DA under Sara.

23 Q. Okay. Thank you.

24 When we left off, we started talking about post
25 San Bruno, the Pipeline Safety Enhancement Program. You
26 were assigned to the Pipeline Safety Enhancement Program;

1 correct?

2 A. I was.

3 Q. What was your job within the Pipeline Safety
4 Enhancement Program?

5 A. I had helped develop the decision tree that was
6 used to decide which pipes were within the program and
7 which ones weren't. And I helped review and confirm the
8 projects that we would undertake to repair and replace
9 pipes. And I was ultimately in charge of the group that
10 determined the subset of projects from pipeline
11 replacement, where we looked at individual features along
12 the pipeline that posed significant individual risks,
13 things like Dresser couplings or wrinkle bends, or
14 historic pipe features that are, that reflect the
15 materials or types of construction that are no longer
16 used today and that we, we thought should be removed from
17 the pipeline.

18 Q. Describe for us in a little bit more detail
19 exactly what the Pipeline Safety Enhancement Program did.

20 A. There's a bunch of different parts of it.
21 There was a part that looked at installing automatic
22 shutoff valves around the system at key spots. That was,
23 again, in response to what happened after -- with San
24 Bruno.

25 There was a portion of it that looked at leak
26 surveying pipelines more frequently.

1 There was a section that looked at -- very
2 important part of the program was to hydrotest all
3 untested lines.

4 And then there was the portion that I worked
5 on, which was primarily pipeline replacement.

6 Q. So is it true that as a part of the Pipeline
7 Safety Enhancement Program, that PG&E did complete and
8 enhanced reinspections of the gas transmission system?

9 A. I wouldn't put it that way. Let me add one
10 other thing, too, another part of the pipeline safety
11 program. And I was to look at enhancing the information
12 that was in GIS. We talked before -- I talked before
13 about there was a lot of assumed values in GIS.

14 Q. We're going to get to that in just a minute.
15 Under the term lessons learned.

16 A. That was part --

17 Q. Part of the program was reinspection?

18 A. I included the hydrotesting, but the
19 inspections like we did under -- and we were making pipes
20 ready for ILI, but that all still stayed -- the ILI and
21 DA work that was done under System Integrity stayed under
22 System Integrity.

23 Q. Explain to us briefly what is the hydro
24 pressure testing you're talking about?

25 A. One of the things that was what the state
26 mandated after the explosion in San Bruno was that any

1 pipe that hadn't been tested to the requirements of
2 Subpart J, which is just a part of a federal code having
3 to do with gas transmission lines and how they are to be
4 tested with under pressure prior to being put into
5 service, it required that we test all lines that hadn't
6 been tested at code to that standard. And that included
7 pretty much, I would think, most of the pipes that were
8 installed before 1970, if not all of them, because that's
9 when the new federal rules came into effect and that's
10 when Subpart J was created.

11 Pipelines had been tested prior to that time
12 under state rules, but the state rules weren't as
13 rigorous as the federal rules.

14 Q. Why would a pipeline that was being used,
15 transmission pipeline that was being used, not have been
16 hydro pressure tested prior to the Pipeline Safety
17 Enhancement Program?

18 A. So it wasn't industry practice when PG&E first
19 started putting in pipelines in 19 -- gas transmission
20 pipelines in 1929, 1930, to do those tests. But in 1955,
21 '56, the American Society of Mechanical Engineers
22 developed a new standard for the construction and
23 operation of gas pipelines.

24 Q. Let me -- we'll get into that in a minute.

25 A. Okay. Sorry.

26 Q. The question is -- maybe I didn't phrase the

1 question right -- was hydro pressure testing available
2 before San Bruno?

3 A. Yes.

4 Q. Was hydro pressure testing used on the
5 transmission lines prior to San Bruno?

6 A. Prior to 2000 -- September 9th, 2010?

7 Q. Yes.

8 A. Yes.

9 Q. How often was it used?

10 A. For all pipes installed after 1970, it should
11 have been done. And for all pipes that were installed
12 after 1961, it should have been done. And for all pipes
13 installed after 1950, but to a lesser level. And most
14 pipes installed after 1956, it should have been done.

15 Q. Okay. But you had a lot of pipes that were
16 installed before 1956 that were still in service on
17 September 9th, 2010; correct?

18 A. Correct.

19 Q. And those were never pressure tested?

20 A. Most of them weren't. There are sections.

21 Q. Pressure testing was available?

22 A. It was.

23 Q. It could have been done?

24 A. Yes.

25 Q. The federal regulation actually mandated that
26 at some point you had to do that, correct, under certain

1 circumstances?

2 A. Under certain circumstances, pipelines that
3 were installed before 1970 do need to be pressure tested.

4 Q. But that wasn't the regular part of the
5 inspection process within PG&E?

6 A. Under the System Integrity rule, no, it was
7 not.

8 Q. You spent almost three years in the Pipeline
9 Safety Enhancement Program; correct?

10 A. Yes. Two and a half, yeah.

11 Q. From your experience, in Integrity Management
12 prior to San Bruno, through your experience in the
13 Pipeline Safety Enhancement Program, what lessons did you
14 learn?

15 A. The -- probably the most important lesson that
16 I learned was that, that if you haven't tested pipe, you
17 need to test it. I think that's the biggest lesson that
18 came out of San Bruno. And it was one I learned as a
19 result of San Bruno, and we applied in the Pipeline
20 Safety Enhancement Program.

21 Q. Okay. Other things we talked earlier, about
22 the GIS system and the attributes of pipes?

23 A. Yes.

24 Q. And those attributes were very important to the
25 risk assessment; correct?

26 A. They were important.

1 Q. And you said in a lot of times that those
2 attributes were assumed?

3 A. That's correct.

4 Q. And that they were what you thought were
5 conservative assumptions?

6 A. Correct.

7 Q. As part of the Pipeline Safety Enhancement
8 Program, did they actually go back and check the actual
9 pipes against the assumed values?

10 A. They did.

11 Q. What was the finding?

12 A. It varied. I don't -- there's no summary that
13 I can give you right here.

14 Q. Okay. Were what you thought were conservative
15 values determined to be conservative values in some
16 cases?

17 A. There were cases where they were not
18 conservative.

19 Q. Meaning that your entire risk assessment for
20 that section of pipe was off; correct?

21 A. Well, again, we were risk assessment, whether
22 it was high or low risk. And I can't say on a
23 case-by-case basis whether it was off or not. It still
24 might have been a different value, but it still could
25 have been labeled as "high risk," or might have been a
26 low value and it changed but it still remained a low

1 risk. I don't know. We didn't never do that kind of
2 analysis afterwards.

3 Q. Okay. How about leak records? What did you
4 learn about the leak records in PG&E's record-keeping
5 system?

6 A. Well, what we learned was that the -- and I
7 don't know that this was a, something that we didn't know
8 beforehand, but that GIS wasn't complete as far as the
9 number of leaks we had in the system.

10 I think I've talked to you about this before,
11 but if not, I'll tell you. We, at each time that we did
12 an assessment of a pipeline that had been labeled high or
13 low risk but required assessment under the Subpart O of
14 the, for System Integrity, the group that was doing the
15 assessment would go out and try to find all leak records
16 they could. So they would add to whatever was in GIS as
17 well.

18 Now, after San Bruno there were leak records
19 that were found that those groups doing their enhanced
20 look for leaks hadn't found either. So we found, we
21 found new leak reports that we weren't aware of.

22 Q. How important were historic leak records to
23 risk assessment?

24 A. For risk assessment, probably not real
25 important. For threat assessment, very important.

26 Q. That was going to be my next question. What is

1 threat assessment as opposed to risk assessment?

2 A. So the federal code references that ASME
3 standard I mentioned before. It identifies nine
4 different threats to a pipeline that an operator needs to
5 look at and manage. Most of those threats don't require
6 a particular assessment, like the DA and the ILI process
7 that I -- or even a hydrotest that I previously
8 mentioned. But some of them can't. If it's a, if it's a
9 stable type of a threat that becomes unstable, or if it's
10 a time-dependent threat, it needs to be assessed.

11 And leak records can be particularly important
12 for the, whether it's a stable or unstable threat.
13 Because things like a leak on a seam in a pipe, if there
14 is a leak on a seam and it's a particular type of a seam,
15 then that's considered to be a manufacturing threat
16 that's unstable. Not all leaks on seams are
17 manufacturing threats that need to be assessed, but some
18 are because the way that they can leak is by rupturing.
19 It's not an uncommon way for them to fail.

20 Q. So what exactly is a manufacturing threat?

21 A. There's a bunch of different ways to make pipe.
22 Today, the most common way today to make it is either a
23 seamless type of pipe, which means they -- I don't know
24 all the different ways that pipe can be made, but you can
25 take a big block of very hot steel and push a mandrel
26 through it and they'll make a pipe out of it.

1 For really big pipe, a more common method is to
2 take big plates or even rolls of steel, looks like a,
3 looks like a roll of toilet paper, but it's steel. And
4 they'll unroll that in a big factory, they'll send it
5 through a bunch of machines that will form it up into the
6 shape of a tube, and they'll press it together and apply
7 an electric current to it, and that will force that steel
8 together and fuse it and make the pipe. That's how it's
9 done typically today. But historically, there have been
10 a bunch of different ways it's been done. And some of
11 those ways, they work great, but when they fail, they can
12 fail catastrophically. And the manufacturing threat
13 assessment is particularly concerned about those types.

14 Q. So are there actually gas transmission lines in
15 the ground today with manufacturing threats, known
16 manufacturing threats?

17 A. There are pipes that have those kind of, that
18 were manufactured under those older techniques, yes.
19 Especially, because one of those techniques is what's
20 called the -- that last method I described where you take
21 this big tissue roll of pipe and you form into a cylinder
22 and then apply an electric current and push it together
23 and heat it up and melt it to make that, make that pipe,
24 it's called electric resistance welding. And that method
25 today is different than the way that they would have made
26 electric resistance welding pipe 50 years ago, something

1 like that. And that pipe is what's called "Low Frequency
2 Electric Resistance Welding Pipe," L-F-E-R-W. And that
3 pipe, because of the way that that seam is formed, it
4 tends to be more brittle and tends to be, it can have
5 cracks and flaws in it. And it can be great, but if it
6 fails, it can fail catastrophically. And there's a lot
7 of that around.

8 Q. So if you have a pipe in the ground, let's say
9 a 50-year-old pipe with a manufacturing threat being it
10 was, it was low intensity electrical, electrical
11 resistance welding, and you have a leak history, what are
12 you required to do?

13 A. If you have a seam weld leak on one of those
14 pipes and you have that kind of pipe in an HCA, whether
15 the leak was in the HCA or not, you need to assess that
16 seam's integrity.

17 Q. And how do you do that?

18 A. There's a couple different ways. It can be --
19 in certain instances, it can be assessed with an in-line
20 inspection. And it can always be assessed with a
21 pressure test.

22 Q. As part of your job, or as part of the Pipeline
23 Safety Enhancement Program, did you find examples of
24 documented historical leaks on lines that had
25 manufacturing threats that weren't known to you prior to
26 San Bruno?

1 A. PG&E might have. I don't know the answer to
2 that question, though.

3 Q. Did you find records of leaks that you, that
4 were unknown prior?

5 A. Yes. To make clear, Marc, there was a big
6 effort to look for those leak records. I just wasn't --

7 Q. Right.

8 A. -- I don't remember being involved with it. I
9 could have been, but I don't remember that.

10 Q. Well, one -- let's talk about one in
11 particular. What was the line that was involved in the
12 San Bruno explosion?

13 A. Line 132.

14 Q. Prior to the explosion, were you aware of any
15 leak history on line 132?

16 A. There were a lot of leaks on line 132.

17 Q. After, during the post Pipeline Safety
18 Enhancement Program, did you become aware of additional
19 leaks on line 132?

20 A. I remember very distinctly hearing about,
21 during the course of the NTSB investigation which
22 followed the explosion, of a leak that came to light on
23 132, yes.

24 Q. And prior to the explosion, you were in charge
25 of Risk Management and the Integrity Management Group;
26 correct?

1 A. Yes.

2 Q. And your job was to assess risks and threats to
3 the pipeline and prioritize inspections and maintenance;
4 correct?

5 A. Inspections, correct. There's a lot of
6 maintenance that goes on along the pipeline. It's
7 unrelated to the System Integrity Group.

8 Q. Okay. So at least in the case of San Bruno,
9 after the explosion you found out that there was a leak,
10 there was a historical leak on that line that you didn't
11 know anything about; correct?

12 A. That's correct.

13 Q. So that one didn't come into play when you were
14 doing your risk assessment on that line?

15 A. That's true. It would have -- I don't think it
16 would have made a difference in the risk assessment,
17 because we had already identified that line as a high
18 risk line due to the high consequences of a failure in
19 that area.

20 Q. And the San Bruno line was in a high
21 consequence area?

22 A. Yes.

23 Q. HCA?

24 A. Yes. One of the first lines we assessed.

25 Q. That line had never been pressure tested?

26 A. Not under Subpart J, no.

1 Q. Okay.

2 A. Not the part that failed.

3

4 (Grand Jury Exhibit 638 was marked for identification.)

5

6 Q. All right. Going to move on. And you have in
7 front of you Exhibit 638, an email. Do you recognize
8 Exhibit 638?

9 A. Yes.

10 Q. What is Exhibit 638?

11 A. It's an email that I wrote to my friend Wayne
12 Ciardella, and his response.

13 Q. Okay. Well, let's start off with defining some
14 terms. Who is Wayne Ciardella?

15 A. He was a friend of mine that had worked in the
16 Mechanical Engineering Department with me.

17 Q. A fellow engineer?

18 A. He was, yes. Is.

19 Q. Did Mr. Ciardella work for PG&E?

20 A. He did.

21 Q. And do you know where Mr. Ciardella worked in
22 PG&E at the time of this email?

23 A. He worked in the Safety, Health, and Claims
24 Department.

25 Q. Do you know what the Safety, Health, and Claims
26 Department is?

1 A. I don't -- I know that my interactions with him
2 as a supervisor previously had been when there were
3 employees that had workers' compensation claims.

4 Q. Okay.

5 A. And -- but he probably prepared a lot of the
6 safety materials for the company, too. I, I don't know,
7 though, that for sure.

8 Q. Don't want you to speculate. You said that the
9 two of you worked together previously in the Nuclear
10 Engineering?

11 A. In the Mechanical Engineering.

12 Q. Mechanical and Nuclear, I'm sorry.

13 What did Mr. Ciardella do in Mechanical and
14 Nuclear Engineering?

15 A. He was a supervisor in the instrument and
16 control group.

17 Q. So a few other things. Let's go through some
18 of these names. Who is Dan Curtis?

19 A. Dan Curtis was another friend of mine.

20 Q. Was Dan Curtis also a PG&E employee?

21 A. He had been, but he was not at this time. He
22 was a contract employee. He was contracted back to PG&E,
23 working for me.

24 Q. When Dan Curtis worked for PG&E, do you know
25 what he did?

26 A. He had been, he had also a bunch of different

1 jobs. His last job before he retired was the job that I
2 took when he retired.

3 Q. So you succeeded him in Risk Management HCA?

4 A. System Integrity at that time. Yes.

5 Q. System Integrity.

6 Okay. You said at this point he was working
7 for a contract with PG&E?

8 A. Correct.

9 Q. All right. Do you know which contractor?

10 A. Mears Cooperation.

11 Q. Now, you start off somebody named Glen. Do you
12 know who Glen is?

13 A. Glen is Glen Carter.

14 Q. Who is Glen Carter?

15 A. He was the -- I don't remember what his job
16 title was, if he was the manager or a senior director or
17 director, but he was in charge of the Gas Transmission
18 Engineering group.

19 Q. Okay. Next name, Chris Johns?

20 A. He was the president of PG&E.

21 Q. Somebody named Thach?

22 A. Thach.

23 Q. Thach, okay.

24 A. He was on -- you didn't ask me about him, but
25 he was one of the engineers on the organization chart
26 that we went through earlier for my group.

1 Q. Okay. Then later the name comes up, Peter?

2 A. Let me read it. I've seen this a million

3 times, but I haven't read it recently. Where is it?

4 Q. It's in Mr. Ciardella's response.

5 A. All right. Well, I'm speculating, but I think

6 he's talking about Peter Darbee.

7 Q. Who is Peter Darbee?

8 A. Peter Darbee the CEO of PG&E.

9 Q. So that would make sense, because you said

10 Chris Johns was the president of PG&E; correct?

11 A. Right.

12 Q. And Peter Darbee, the CEO, Chief Executive

13 Officer?

14 A. Right. CEO, Chief Executive Officer, of PG&E

15 Cooperation, I think.

16 Q. All right. Finally, Dick Clarke. I'm going to

17 assume that it's not the guy from the radio shows on New

18 Year's Eve?

19 A. I would make the same assumption.

20 Q. Do you know who Dick Clarke is?

21 A. I think he's -- but I don't know -- I think

22 he's talking about the CEO.

23 Q. All right. So as we've learned on the emails,

24 we start at the bottom, work our way up. Can you read us

25 your email that starts this conversation.

26 A. I sent this to Dan Curtis.

1 Q. Okay. Hold on. First, let's do the
2 foundational stuff. This is from you, William Manegold;
3 right?

4 A. Correct.

5 Q. When did you send this?

6 A. It says I sent it on October 21st, 2010, at
7 10:22 in the morning.

8 Q. So this is 12 days after the San Bruno
9 explosion; correct?

10 A. Sounds right, yeah.

11 Q. And you sent this to Wayne Ciardella?

12 A. Correct.

13 Q. Ciardella?

14 A. Correct.

15 Q. And the subject?

16 A. It says, forwarded, "I blew my chance."

17 Q. Okay. Now, go ahead, read it to us, your
18 email.

19 A. And I know I start out I said, "I sent this to
20 Dan Curtis. Glen brought Chris Johns to different
21 offices today, Thach was in a DIMP meeting, but I'm stuck
22 writing explanations on why something went up or down
23 from one year to the next in the top 100. Fortunately,
24 it's for someone else to explain why they never did
25 anything with any of them. And when they stopped by,
26 Glen said I could say what I thought. This was after an

1 explanation by Chris that we were looking at all our
2 processes. I said our problem wasn't our processes, that
3 we had a lot of well-maintained but old pipe and that we
4 should spend more to replace it and add people to manage
5 that spending. That well-maintained 1956 Cadillac is not
6 as safe as a new car."

7 Q. All right. So you're talking at this point to
8 Chris Johns, who is the CEO of PG&E; correct?

9 A. I had talked to him. I wrote -- by the time I
10 wrote this note.

11 Q. You're writing this describing your
12 conversation with Mr. Johns?

13 A. To Wayne and to Dan, correct.

14 Q. Right. Now, this referenced processes that
15 Chris -- "We were looking at all of our processes."

16 And your response, "I said our problem was our
17 processes."

18 What are you talking about?

19 A. I interpreted what Chris told me. And this is
20 -- I'm trying to remember what I thought in 2010, but I
21 -- what I remember is that I thought Chris was thinking
22 that we needed to change a lot of our procedures and
23 that, that is where our focus for post San Bruno needed
24 to be, was our procedures. And they were going to look
25 at all of them, change what they needed to change.

26 Q. And you disagreed with that?

1 A. Well, I did. It probably wasn't right. We
2 probably did need to look at a lot of our processes. A
3 lot of things probably did need to change. And they did,
4 of course, afterwards, but I thought it was the wrong
5 place to focus on initially.

6 Q. How about your reference to "old pipe." Would
7 you explain that to us?

8 A. I talked to you already about how they made
9 some of that older pipe. It's good, it's serviceable.
10 If it's cathodically protected, it can last a thousand
11 years, but it's not made as well as pipe that's made
12 today.

13 Q. Probably should have you define what you mean
14 by "cathodically protected." Probably start with
15 spelling cathodically for our court reporter.

16 A. C-A-T-H-O-D-I-C-A-L-L-Y. Cathodically. I
17 think that's right.

18 You put pipe in the ground or leave it out in
19 the air, and it's going to, if there's any moisture at
20 all, it will start to corrode. But you can put a current
21 on that pipe when it's buried in the ground, and you can
22 keep it from corroding. It can last -- like I said, it
23 can last, look brand new when you take it out of the
24 ground, clean off, clean it off. But pipe that's
25 cathodically protected since, say, 1940, you take it out
26 of the ground, it will look brand new.

1 And for gas lines, most gas lines, they can --
2 at the time I probably would have thought they could last
3 forever. I found out afterwards that that's probably too
4 long. But they can last more than a hundred years;
5 couple hundred years if they're properly maintained.

6 Q. You go on to say, "We should spend more to
7 replace it." Explain to us your thinking on that.

8 A. Let's see here. I want to read the sentence.
9 I've got to find it.

10 Yeah, I was thinking that the processes around
11 maintaining the pipelines is what, what Chris was talking
12 about. I didn't think that was the issue. I thought we
13 needed to replace more pipe.

14 Q. Okay. And you go on to analogize that "a
15 well-maintained 1956 Cadillac is not as safe as a new
16 car"?

17 A. Right.

18 Q. Can you explain that to us, please.

19 A. Well, just like a new car has all sorts of -- I
20 mean, you all have new cars. New cars have
21 collision-avoidance systems, when they get in a crash
22 they have crush zones, you wear seat belts. They have
23 better head lights. They have better braking lights,
24 better braking systems. Everything is better about a new
25 car than an older car, even a really well-maintained car.
26 A lot of great old cars, but for safety-wise, a new car

1 is better. And that's true in a lot of cases for pipe.
2 Some of those pipes that I talked about with those older,
3 older manufacturing methods, they're just not as good as
4 the pipe that's made today.

5 Q. So you said that even with those issues, with
6 seam weld threats and other manufacturing threats, that
7 if it those pipes are properly maintained, that they
8 should last over a hundred years; correct?

9 A. Yes.

10 Q. Properly maintained, does that include properly
11 inspected?

12 A. I don't think that's necessary to make them
13 last. I think it's necessary to ensure that the, that
14 the, that the maintenance systems that you have in place
15 are working.

16 Q. How do you maintain a pipe that's buried
17 several feet underground?

18 A. Well, as I was, as I was explaining about the
19 cathodic protection system, you can apply it, you can
20 impress a current on the pipeline, and you can make sure
21 that that pipe doesn't corrode.

22 Q. Okay. That's from the exterior. What about
23 from the interior?

24 A. If it's a dry gas, it's not going to corrode on
25 the inside either.

26 Q. What's the difference between a dry gas and a

1 wet gas?

2 A. Well, when gas comes out of the wells, there
3 can be a lot of fluids that are associated with them.
4 Natural gas comes out of the ground. It's pressurized in
5 rock formations, and they drill down and they release
6 that gas. And the, a lot of fluids often come up with
7 it. And those fluids have to be separated out.

8 Q. So would the PG&E gas transmission pipes have
9 dry gas or wet gas in them?

10 A. All the contracts that PG&E has I believe call
11 for dry gas.

12 Q. So what are the internal threats to Gas
13 Transmission pipes?

14 A. Well, if those, if those systems, to make sure
15 that you have dry gas break down, you can have corrosion
16 on the inside.

17 Q. Okay. All right. Let's go on, pick up where
18 we left off, the second paragraph.

19 A. "But, of course, they are going to spend more
20 dough anyway, so it was a wasted opportunity. What I
21 should have said was that in this review process don't
22 assume that the people working on this stuff now are
23 idiots that should be ignored, as seems to me has been
24 done. Secondly, let me know we are not prepared --
25 secondly, let him know we are not prepared for major
26 earthquakes. Oh, well."

1 Q. Why did it seem to you that people like Chris
2 Johns were assuming that you were all a bunch of idiots?

3 A. It's embarrassing to say it, but I was, I was
4 feeling sorry for myself. It's kind of stupid, but
5 that's how I felt that day. And, in any event, I think I
6 felt that because I was doing a lot of stuff that wasn't
7 involved in either looking at the accident, which I
8 thought was very important to understand what happened so
9 it couldn't happen anywhere else, and that there was a
10 lot of work going on that I thought was natural for our
11 group to be involved in and we weren't.

12 Q. Okay. Now, let's move up to Mr. Ciardella's
13 response to you. If you can read that to us.

14 A. "Excellent way you put it. Think about this as
15 I said, this is not the complete fault of Peter or Chris
16 since 2004, this is a deliberate and tragic strategy, a
17 bleeding problem that started with the completion DCP
18 and Dick Clarke. Five to 10 percent or more cutbacks
19 each year and funneling money out for other investments
20 outside of the infrastructure where it should have gone.
21 Money that engineers would have used to add safety
22 margins, replacements, et cetera over all these years.
23 And yes, maybe not meeting the authorized rate of return.
24 This problem is across gas and electric. I only thought
25 about electric and thought, I thought is just, is was
26 just there, but now we see the gas side, too. The piping

1 and valves and design. The old '56 Cadillac that runs
2 like a top but is not up to current standards and safety
3 criteria.

4 This is the near criminal fault of all the
5 financial people running the show since the 1980s. And
6 Peter and Chris continued that same philosophy,
7 therefore, are not free from fault.

8 This truth needs to be fully aired out to the
9 state and federal authorities."

10 Q. What was the DCPD?

11 A. Diablo Canyon Power Plant.

12 Q. Mr. Ciardella talks about 5 to 10 percent or
13 more cutbacks each year. Is that consistent with your
14 experience?

15 A. I don't remember that one way or the other.

16 Q. Okay. "Money that engineers would have used to
17 add safety margins, replacements, et cetera, over all
18 these years. And yes, maybe not meeting the authorized
19 rate of return." Do you agree with that statement?

20 A. I, I talked to Wayne a little bit afterwards.
21 I told him I did not agree with him.

22 Q. Okay. Why not?

23 A. I just hadn't seen that.

24 Q. Okay. Now, you had been in the System
25 Integrity Management since 2005; correct?

26 A. Correct.

1 Q. You had been a supervisor in that system since
2 2006?

3 A. Yes.

4 Q. We'll save this for a minute.

5 Now, before we get into the next stuff, let's
6 talk about the history of pipeline safety. If you could
7 walk us through the history of pipeline safety in the
8 state of California as well as the federal government.

9 A. So my knowledge is incomplete. I'll tell you
10 what I know. Some of the stuff that I tell you might be
11 wrong, but it's what I understand happened.

12 B31.8 is a, is an offshoot of a, of a national
13 standard that's maintained by the American Society of
14 Mechanical Engineers for the design and construction of
15 gas transmission/distribution lines. And I should know
16 this, but I, but it wasn't the group that I worked in. I
17 think it also covers offshore, some offshore piping as
18 well.

19 In 1955 or so there was a major effort to
20 upgrade that code. PG&E's involvement with that for a
21 goal point was Rosco Smith, who later became the head of
22 the gas department. He might have been the head at that
23 time. Was a member of that committee that promulgated
24 that standard so that when it was implemented as a
25 national voluntary standard, he brought it back to PG&E.

26 1961, the State of California enacted GO 112,

1 General Order 112, which governs how the state required
2 companies that ran gas lines to operate -- to build,
3 maintain, and operate those lines. They largely adopted
4 the ASME standard from 1958. I think the '58 standard
5 had been -- they had the standard in '55, and they had
6 enough experience after a couple years and they upgraded
7 it in '58. And the standard the state adopted in '61 was
8 based on that '58 standard. They added a lot of
9 requirements. The ASME code is a voluntary standard, and
10 the state added a number of different requirements. Like
11 I think, for instance, the length of time for a hydrotest
12 I think was part of that '61 change from the ASME '58
13 standard. I think the ASME standard required a pressure
14 test, but I don't believe it set a time period, you know.
15 I'm not sure. But, as an example, there were things that
16 were made mandatory in the '61 code that were not in the,
17 in the '58 code.

18 Then, as a result of a number of accidents, I
19 think especially sparked by a big explosion down in
20 Louisiana, the Pipeline Safety Act of 1968 was passed and
21 it went into effect in essentially in 1970. And PG&E
22 works under that system along with GO 112, which has been
23 updated to match the federal standard. Then they've
24 added, the state has added some additional requirements
25 on top of what the federal requirements are. They've
26 operated under those rules since that time.

1 Do you want me to say something about 2004?

2 Q. Yep.

3 A. So the federal rules are part of 19 -- 49 CFR
4 192. And there's a bunch of different parts to that.
5 And in 19 -- or in 2002, as a result of a number of new
6 explosions that said, that told the federal government
7 and the industry then all these safety rules that we've
8 had up to now weren't enough because these two events
9 happened. One was on a liquid line up in Bellingham,
10 Washington; one was on a natural gas line down near
11 Carlsbad, New Mexico. The federal government passed a
12 new Pipeline Safety Act, and that led to the rules that
13 are part of Subpart O, and that went into effect in 2004.
14 But the rule, because the law was passed in 2002, some of
15 the requirements of this 2004 act are retroactive to
16 2002.

17 Q. All right. Somewhere in the mid '50s -- '54,
18 '55, '56, somewhere in there -- the American Society of
19 Mechanical Engineers passes the new standard B31.8 for
20 gas transmission pipes nationally; correct?

21 A. Yes.

22 Q. One of the people involved in that you said was
23 Rosco Smith, who was the head of Gas Transmission for
24 PG&E?

25 A. Uh-huh.

26 Q. Remember, answer out loud for her.

1 A. Yes.

2 Q. All right. So prior to the new B31.8, there
3 was already gas transmission pipe in the ground; correct?

4 A. There was.

5 Q. So what happens to all that old pipe when 31.8
6 comes into play?

7 A. It depends. There's different parts of B31.8.
8 Some of them are for construction; they don't apply
9 because the pipeline's already built. But those that
10 apply to maintenance and operations would apply.

11 Q. Okay. So somewhere around 1958, PG&E adopted
12 the American Society of Mechanical Engineers' B31.8
13 standard for the company; correct?

14 A. '58, I believe so, but I -- the research that I
15 did indicated that.

16 Q. Okay. Then in 1961, the State of California --

17 A. Let me add that I think, I think they had also
18 looked at adopting the 1955 standard. But, again, I'm
19 not a hundred percent sure about that.

20 Q. Okay. 1961, the state adopts that standard?

21 A. GO 112. And they incorporated B31.8.

22 Q. And that's CPUC, in the California Public
23 Utilities Code, or Commission, General Order 112 that
24 we're talking about; correct?

25 A. Correct.

26 Q. Then in 1968, the feds adopt the first pipeline

1 safety, national pipeline safety laws; correct?

2 A. Yes.

3 Q. So in 1968 was there still pre B31.8 pipe in
4 the ground?

5 A. There is today.

6 Q. So pipe that was put in there, installed, and
7 is still being used that wasn't manufactured up to the
8 standards of B31.8; correct?

9 A. That might not have been correct.

10 Q. So how does that happen? How is that allowed?

11 A. I can't answer that question.

12 Q. Okay. Have you heard of what's called a
13 "grandfather clause"?

14 A. Yes.

15 Q. Okay. Was there a grandfather clause in the
16 federal legislation that allowed under certain
17 circumstances for preexisting pipes to continue in use?

18 A. Yes.

19 Q. Then in 2004, feds come back --

20 A. Yeah. The grandfathered -- to be a little more
21 specific, the grandfathering clause specifically applies
22 to what pressures you can operate those pipelines at.

23 Q. Okay. In 2004 we have the pipeline, the gas
24 pipeline integrity rules that are enacted by the feds;
25 correct?

26 A. Yes.

1 Q. And that included Subpart O?

2 A. Correct.

3 Q. What was Subpart O?

4 A. It's identified as the System Integrity Rule.

5 Q. Okay. And can you give us a brief description
6 of Subpart O.

7 A. It required an operator to identify pipelines
8 that are in high consequence areas and to inspect those
9 pipelines and to remediate what they find and develop
10 programs to manage those pipelines with rules that are
11 above and beyond what's required in the rest of the code.

12 Q. And were there special rules for pre B31.8
13 pipes, anything installed prior to 1955?

14 A. Not specific to that year, no.

15 Q. Okay.

16 A. Not that I am aware of.

17 Q. Were there specific rules for these aging and
18 older pipes that were still underground and still being
19 used in 2004, 2005?

20 A. I'm not sure what you're looking for.

21 Q. Well, were there any requirement that they be
22 hydrotested?

23 A. No.

24 Q. Any requirement of any type of enhanced
25 inspection for those older pipes?

26 A. Yes. And that could include it, but it didn't

1 require it.

2 Q. Okay.

3 A. Could include hydrotesting. It didn't require
4 hydrotesting.

5 Q. Okay. Explain to us.

6 A. What the rule required was that those pipes
7 that are in HCAs need to be assessed regularly for
8 time-dependent threats like corrosion, which if it's left
9 unmitigated will get worse with time. And the methods
10 that are, that the operator was allowed to use included
11 in-line inspections, direct assessments, other
12 technologies which aren't specified but was put in the
13 code because they understood that there might be things
14 that would be developed with time that weren't developed
15 at the time the code was written. And pressure testing.

16 Marc, can I take a break? I want to talk to my
17 lawyer.

18 Q. Sure.

19 A. Thanks.

20 Q. It's actually up to her.

21 GRAND JURY FOREPERSON: Okay.

22 THE WITNESS: William Manegold.

23 GRAND JURY FOREPERSON: Mr. Manegold, you are
24 admonished not to discuss or disclose at any time outside
25 of this jury room the questions that have been asked of
26 you or your answers until authorized by this Grand Jury

1 or the Court. A violation of these instructions on your
2 part may be the basis for a charge against you of
3 contempt of court. This does not preclude you from
4 discussing your legal rights with your own attorney.

5 Mr. Manegold, what I have just said is a
6 warning not to discuss this case with anyone except the
7 Court, your lawyer, or the district attorney.

8 THE WITNESS: Thank you.

9 GRAND JURY FOREPERSON: Thank you.

10 MR. NOEL: Take a brief recess. Come back in,
11 finish before lunch.

12 (Break taken.)

13 GRAND JURY FOREPERSON: We are ready to resume.
14 You're still under oath.

15 THE WITNESS: Thank you.

16 MR. NOEL: We make our record of we're all
17 here?

18 GRAND JURY FOREPERSON: We're all here. All
19 juror members are present and ready to resume.

20 THE WITNESS: I'd like to amend something that
21 I said earlier. Wayne had written that, about cutbacks
22 that had been going on since Diablo Canyon. And I said I
23 didn't agree with that. And I didn't. But I wanted to
24 make sure that at the time that I was in System Integrity
25 there were cutbacks.

26 Q. (By MR. NOEL) We're going to talk about that

1 in depth probably after lunch.

2

3 (Grand Jury Exhibit 659 was marked for identification.)

4

5 Now, next I want to call your attention to
6 what's on the deck in front of you, Exhibit No. 659. And
7 in the PowerPoint it is misnumbered as 688 -- or 668, I'm
8 sorry. It's actually 659.

9 Do you see that document?

10 A. Yes.

11 Q. Do you recognize that document?

12 A. I believe so.

13 Q. What is Exhibit 659?

14 A. It was a report prepared for the CPUC on our
15 Gas Transmission program mandated, I think, as part of
16 our -- the PUC.

17 Q. I have 659 up on the big board behind you. And
18 this is entitled the 2007 Gas Transmission Facilities
19 Risk Management Annual Report; right?

20 A. Yes.

21 Q. Did you play a part in the drafting of this
22 report?

23 A. I could have. I wrote it one or two years,
24 maybe three, I'm not sure. And before I wrote it, Chris
25 wrote it. I don't know if this is the one Chris wrote or
26 I wrote. Let's see, who signed it? Is it signed? Bob

1 Fasset. Probably I wrote this, but I'm not sure.

2 Q. Okay. You mentioned --

3 A. At least most of it.

4 Q. We'll get to the end of that. We'll get to
5 that when we get to the end of it.

6 Now, it starts off, "The mission of PG&E's
7 Integrity Management Program." You were part of the
8 Integrity Management Program; correct?

9 A. Yes.

10 Q. "And Risk Management Program." You were
11 actually the supervisor of the Risk Management Program;
12 correct?

13 A. Not at the -- well, I mean functionally, yes,
14 but I don't think that title existed in 2007.

15 Q. Okay. What would your title have been in 2007?

16 A. Probably Supervisor System Integrity Group.

17 Q. Okay. So why don't you read us the first
18 paragraph of this report.

19 A. "The mission of PG&E's Integrity Management
20 Program and Risk Management Program is to operate a safe
21 and reliable gas transmission system by ensuring
22 compliance with the Gas Transmission Integrity Management
23 Program Rule CFR 49 Part 192, Subpart O, and effectively
24 invest PG&E's resources in ongoing assessment,
25 investigation, and mitigation of the high-risk pipeline
26 in station facilities not cover by this rule. In 2007,

1 the IMP and RMP directed \$49,600,922 to projects focused
2 on achieving these goals."

3 Q. All right. Talking about the mission of the
4 program, in your experience, is that an accurate
5 depiction of your mission and the Integrity Management
6 Program?

7 A. I -- as part of the group effort, yeah, that's
8 what we did, and that's what I did.

9 Q. Now, the next section talks about Subpart O.
10 If you'd read that for us.

11 A. "On December 17th, 2003, the Office of Pipeline
12 Safety issued a new rule, CFR -- 49 CFR Part 192, Subpart
13 O, requiring integrity assessments for pipelines in high
14 consequence areas. Currently, 935 miles of PG&E's gas
15 transmission lines are in HCAs that need to be assessed
16 by December 17th, 2012. Due to the over testing required
17 to assess the HCA pipelines, approximately 2,200 miles of
18 PG&E's gas transmission lines will be assessed by 2012.
19 In spite of the scope of this rule, over 60 percent of
20 PG&E's transmission lines will not be assessed. The
21 higher risk pipelines in this population will continue to
22 be assessed and mitigated under PG&E's RMP."

23 Q. So explain to us what that means.

24 A. I don't know how far back to go. If I'm going
25 beyond when they invented the wheel, tell me. But PG&E
26 had two risk management programs that they worked to.

1 One was required by Subpart O, which I described to you
2 previously where the risk assessment was done primarily
3 to prioritize when we assessed pipes and when we didn't.
4 But starting in about 1985, we had approached the
5 Commission about developing a program to replace older
6 at-risk pipes, the Gas Pipeline Replacement Project, to
7 look at pipes that fell into the category that Marc
8 talked about that were made before these rules that went
9 into effect in 1970 or '61 mostly.

10 On the Gas Transmission side, that was focused
11 in the beginning in the mid '80s on pipes that were in
12 fault zones. We were particularly concerned that older
13 girth welds would be more brittle and might fail.
14 Usually a girth weld is not a point of failure on a
15 pipeline. But if in an earthquake, if it is brittle, we
16 were concerned it could fail. So we had gone to the
17 Commission in the mid '80s, and we had said on the
18 Distribution side there's this class of pipes we'd like
19 to replace, and on the Transmission side we'd like to
20 focus on pipelines in earthquake areas.

21 Q. Let me interrupt you real quick. You didn't
22 get involved in the Gas Transmission line business until
23 2005; correct?

24 A. I wasn't in the department, but I had done some
25 work before that.

26 Q. Okay. When you're saying, talking about in the

1 '80s, that "we," "we," "we"?

2 A. I'm talking about PG&E.

3 Q. Right. Okay. And you weren't involved at that
4 point?

5 A. Correct. But you were asking me for a history
6 of what happened.

7 Q. Not necessarily a history. We're talking about
8 what this means right here, that you've got --

9 A. I'm talking about the wheel. So to speed it up
10 then, what we said was that, when we came up with a new
11 risk program, that we were -- we came up with a new risk
12 program in the early 2000s that said we wanted to replace
13 pipe in more than just earthquake zones. And that's what
14 this is referring to.

15 Q. Okay.

16 A. This is not related to Subpart O, but it does
17 look at other pipes that might be at risk.

18 Q. All right. Next, "Both programs are directed
19 by the Risk Management Procedures, RMP." What is RMP 06
20 and RMP 01?

21 A. RMP 06 is the program document that defines how
22 we ran the risk management, how we did most of the work
23 the required under Subpart O. RMP 1 was the -- so under
24 RMP 6 might be this, this is how we're going to identify
25 HCAs, high consequence areas; these are the people that
26 are going to do the work; these are the qualifications

1 those people need to have; this is the training these
2 people need to have in order to do that work; this is how
3 we're going to do assessments. And it steps through each
4 of the requirements that were set out in Subpart O. And
5 it tried to address each one of those and identified the
6 people that were responsible for the different parts of
7 Subpart O and what they were going to do.

8 And it referred to other RMPs as well. For
9 instance, it might say, "ILI work will be done in
10 accordance with RMP 11." Then if you looked at RMP 11,
11 it would have the same thing, how we're going to conduct
12 ILI inspections.

13 RMP 01 was the document that was prepared
14 before there was a Subpart O. It described initially how
15 we were going to do the risk analysis for pipes that we
16 were to replace under that non-Subpart O portion of the
17 rule. The part that dates back to the 1980s, when we
18 first wanted to look at pipes that were at risk as
19 earthquake zones and expanded that to a broader group in
20 the early 2000 to look at pipes across the system that
21 might be at risk.

22 Q. All right. Next paragraph: "The risk
23 assessments that are utilized in these procedures were
24 developed and are being maintained using a deliberative
25 process that employs" what?

26 A. "Industry best practices for risk management

1 and steering committees composed of subject matter
2 experts and the Risk Management Team."

3 Q. What are industry best practices for risk
4 management?

5 A. Those are the kind of practices that are
6 described in B31.8S. B31.8S is the -- so at that time,
7 it included B31.8S, but it was developed before that
8 time. Did you want me to talk about that?

9 Q. No, that's good.

10 A. All right.

11 Q. What is a steering committee composed of
12 subject matter experts and the Risk Management Team?

13 A. The RMPs looked at risk. RMP 1 described the
14 overall risk program and defined how we determined what
15 the consequences component of that risk equation that
16 Marc had on the board earlier. Risk being the likelihood
17 of an event times the consequence. RMP 01 described
18 those consequences and how we would calculate them. And
19 they were different between these two programs. The
20 consequence portion, for instance, for, for the Integrity
21 Management Rule only looked at the impact on population.
22 The consequence factor for the, that earlier program,
23 looked at things besides population, like reliability.

24 And then RMP 2, 3, and 4 were this, which is
25 the -- looked at individual threats. And the steering
26 committees that you asked about are, are made up of

1 people who are experts in each one of those areas that
2 would participate in reviewing the, that risk analysis,
3 the risk analysis component, the weightings that we gave
4 them in calculating what the likelihood of failure was or
5 the consequence of failure, and they would revise them
6 based on their experience and based on what we would see
7 in the system.

8 Q. Is there a name for these steering committees?

9 A. Yes, but I don't remember what they all are.

10 Q. Is this something within the structure of PG&E,
11 within the structure of the Gas Transmission Division?

12 A. They were -- yes. And they're defined by these
13 RMPs.

14 Q. Next up, if you can read the next paragraph.

15 A. "Risk is calculated using a relative
16 calculation methodology that assesses individual pipeline
17 segments for both the likelihood and the consequence of
18 failure. The relative risk of each unique pipe segment
19 and calculated by integrating more than 30 different data
20 sets that are managed within PG&E's geographic
21 information system."

22 Q. This is what we were talking about earlier, the
23 relative risk calculation?

24 A. Correct.

25 Q. And that, the relative risk, comes from the GIS
26 system; correct?

1 A. The calculation of it.

2 Q. Calculation of it?

3 A. Almost all of it, but not all of it. We also
4 use data sets, data information that was outside of GIS
5 as well.

6 Q. Right. We already talked about that GIS
7 sometimes used assumed values?

8 A. Yes.

9 Q. And the GIS was missing leak information?

10 A. Some leak information, yes.

11 Q. And the other information was just completely
12 missing from GIS?

13 A. I didn't know that it said that. That's
14 probably -- that may be true, but I am not sure what
15 you're talking about right now.

16 Q. All right. And then we start going through
17 "project selected based upon two methodologies." Let's
18 see, we have anything else in here?

19 All right. Next paragraph, "Starting in 2004,"
20 if you can read this paragraph for us.

21 A. "Starting in 2004, PG&E began to make
22 significant investment in assessing the integrity of IMP
23 covered pipeline segments. Since many of the
24 highest-risk segments -- since many of the highest-risk
25 pipelines are covered by the IMP Rule, the voluntary
26 spending in the RMP decreased. However, there's a

1 substantial overall increase in pipeline safety resulting
2 from the combination of both programs."

3 Q. So, again, what is IMP?

4 A. Integrity Management Program.

5 Q. That's referring to the 2004, 2003 legislation
6 that went into effect in 2004 to federally include
7 Subpart O?

8 A. Right.

9 Q. So that created new requirements for you,
10 mandated new inspections that had to be done; correct?

11 A. Correct.

12 Q. So am I reading this right, that because of
13 that, because you had more inspections that were now
14 covered by the IMP, by Subpart O, that non-Subpart O
15 inspections had to decrease?

16 A. No. They're not talking about -- I don't think
17 -- I mean, it's been a long time since I read this and
18 wrote it. I think what it's talking about is the number
19 of pipeline replacement projects that were performed were
20 less.

21 Q. Okay. Says, "Voluntary spending and the RMP
22 decreased"?

23 A. It wasn't all replacements. I think there was
24 some work that overlapped what we did in IMP. I think,
25 for instance, cathodic protection surveys that would have
26 been done under the IMP program, if there were some, they

1 might have been less. Because I know we did some of
2 those even after, even after the rule went into effect.
3 And so those would have been less because we're already
4 doing those as part of the IMP.

5 Q. So let me make sure I got this straight.
6 Basically, we're talking about a zero sum gain, that if
7 you spend more on the left side, you spend less on the
8 right side, so it all balances out in the middle?

9 A. I don't think that's true.

10 Q. Okay. So --

11 A. But I'd have to look at the dollar numbers to
12 know that. I don't think that's true, though.

13 Q. But that's what it seems to be saying in here,
14 that because some of the highest risks are covered by the
15 IMP, the voluntary spending in the RMP decreased. So
16 because we're spending more in the IMP, we're spending
17 less on RMP?

18 A. That could be true without them being equal.
19 In other words --

20 Q. Okay. Well --

21 A. -- for this to go up, this, this might go down
22 a little, but it's not going to go down this.

23 Q. Okay.

24 A. To know for sure, you'd have to look at the
25 spent numbers for those years.

26 Q. Now this goes into the various programs. And

1 we're not going to go through each one.

2 All right. If you could read for us the
3 conclusion.

4 A. "After the eighth year of formalizing its Gas
5 Transmission Risk Program -- Risk Management Program,
6 PG&E continues to improve and expand its impact. A total
7 of \$49,600,922 was spent to evaluate and reduce the risk
8 to more than 5,766 miles of transmission pipelines. This
9 work included a system-wide review for over 13 miles of
10 new HCAs and an updated system-wide risk analysis to be
11 used in evaluating future projects. By December 17th,
12 PG&E had assessed 509 miles, or 56 percent, of PG&E's HCA
13 pipe and 83 percent, or 23 miles, of StanPac HCA pipe as
14 identified in their respective 2004 base assessment
15 plans. The federal requirement was to assess 50 percent
16 of our HCA piping by December 17th, 2007, and this
17 requirement was met."

18 Q. All right. So explain this requirement of 50
19 percent, 56 percent, 83 percent.

20 A. So for the -- the federal rule required that by
21 December 17th, 2007, five years after the law was signed,
22 which I think was December 17th, 2002, that the operators
23 that, that operated pipelines -- and PG&E operated them
24 under two ownership groups, one as part of PG&E the
25 company and one as part of a joint venture with Chevron
26 that dated back to the '30s, thus the name StanPac,

1 because Chevron used to be Standard Pacific or Standard
2 Oil. StanPac is PG&E. It required that in five years
3 that 50 percent of those lines be assessed. And that was
4 completed that year. In fact, we assessed, it looks
5 like, 56 percent of the PG&E pipelines and 83 percent of
6 the StanPac lines.

7 Q. What's StanPac?

8 A. That is that company, that joint company, that
9 I mentioned that's owned by PG&E and Chevron, and
10 operated by PG&E.

11 Q. Okay. All right. And so 50 percent by
12 December 17th, 2007. What about the other 50 percent?

13 A. That was scheduled to be finished by 2012.

14 Q. Okay. December 17th?

15 A. Yes.

16 Q. All right. And now, this includes a letter, a
17 cover letter that goes with it. And I just want to get
18 down to the bottom here. Who is Robert Fassett?

19 A. In July of 2008 he would have been my
20 supervisor. I think he was my supervisor at this time.

21 Q. Your direct supervisor?

22 A. I believe so. Sara Burke, slash, Peralta
23 became my supervisor, but I didn't think she became
24 supervisor until that fall or maybe even 2009. I'm not
25 sure. In fact, I think -- I don't know. I don't know.
26 I don't remember. But at one time he was my direct

1 supervisor.

2 Q. All right. So let's talk about pipelines,
3 pipeline inspection programs. And first, before,
4 probably leading us up to lunch, let's talk about the
5 inspection methods available and define them and discuss
6 each one.

7 Now, to start with, what are the utility -- the
8 universally accepted standard methods for inspecting gas
9 transmission pipe?

10 A. So I think I talked a little bit earlier about
11 how there are a number of different threats that we look
12 at on a pipeline. There's nine of them.

13 Q. Right. We're going to get into that in a
14 second. But let's just talk to --

15 A. But it relates to the inspection methods.

16 Q. That's what we're going to talk about in a
17 minute, is how we -- how we associate methods of
18 inspections with threats.

19 A. Right.

20 Q. But right now we just want to go into --

21 A. So direct assessment is a method of looking at
22 different types of corrosion. It's a way to assess
23 whether a pipeline is susceptible or has problems with
24 external corrosion or internal corrosion or stress
25 corrosion, cracking.

26 Q. So describe for us what would go into a direct

1 assessment of a gas transmission pipe?

2 A. There are tools used to, to -- it depends on
3 whether it's internal, external, or stress corrosion,
4 cracking. But for external corrosion, it involves
5 looking at the cathodic protection system. And then
6 there -- tools are used to go along the pipeline and
7 measure how effective that cathodic protection system is
8 working. And where there are indications that it's not
9 working as well, those spots are identified. They call
10 out types of anomalies they find along the pipelines
11 using those tools. Then they dig them up and examine
12 those anomalies and repair them as necessary.

13 Q. So how do you assess something that is buried
14 underground?

15 A. So these indirect tools let you look at how
16 well that cathodic protection system is working. I think
17 I mentioned earlier that if you have effective cathodic
18 protection system, the pipe isn't going to corrode. And
19 these tools, even though the pipe is buried, let's you
20 look and see is that system working or not.

21 There are some other tools, too. They look at
22 what condition the coating is in. I'm not an expert in
23 DA, but I was familiar with the product they produced.
24 And I, I went along on different inspections and, et
25 cetera, but I may be leaving things out.

26 Q. Next, what is in-line inspection?

1 A. In-line inspection is when you put what's
2 called a "pig" into the pipeline and you, through
3 different types of tools, inspect either the geometry of
4 the pipeline, you might want to look and see if somebody
5 -- I talked before about how oftentimes the most
6 dangerous kind of damage is third-party damage because if
7 it breaks through the pipeline, the person is right
8 there, they can get injured right when it happens. They
9 don't have time to get away from whatever it is that
10 fails. And in-line inspections can look at deformities
11 or, or where the pipe's been hit or damaged. There's
12 other types of pigs that can look at where there's metal
13 loss in the pipeline. And of those metal loss tools,
14 these so-called "smart pigs," there's different kinds of
15 them, some that are better at looking at axial flaws,
16 some better at looking for radial-type flaws.

17 Q. Finally, what is hydro pressure testing?

18 A. There's different-- hydro is one type of
19 pressure testing that's allowed, it's the most common,
20 and it's where you fill the line with water and you
21 pressurize it to some value above what you normally
22 operate the pipeline at with the idea being that if it
23 can operate at a higher value than what it normally
24 operates at, then it's proved itself safe to operate at
25 the pressure you've designated as the normal operating
26 pressure.

1 Q. CFR 192.921, Subpart A. "An operator must
2 select the method or methods best suited to address the
3 threats identified to the covered segment"?

4 A. Right.

5 Q. Is that an accurate summary of Subpart A?

6 A. I'd have to pull out the book to be sure. But
7 it sounds right.

8 Q. Okay. How do you select the appropriate method
9 or method of inspection based upon the threats
10 identified?

11 A. If it's a -- some tools are good for assessing
12 some threats. There's an overlap among the tools. For
13 instance, DA, ILI, and hydrotesting can all check for
14 significant corrosion damage. Some tools are not good
15 for types of threats. If one of the threats that is
16 identified is a seam threat on the pipeline -- I talked
17 about how the pipes are made together, if you make the
18 seam. There's older types of pipes that were made that
19 had a seam that wasn't necessarily as good. Some of
20 these -- one of these inspection methods, in particular,
21 direct assessment, is not a tool that you can use to
22 inspect for that kind of a threat if you need to assess
23 for it. And ILI is a tool that can sometimes assess for
24 it and sometimes can't. It depends on the pipe.

25 Q. So let's talk about that, because we have spent
26 some time with it. If you have a pipe with a known

1 manufacturing threat, for instance a seam weld, an ERW
2 seam weld, under 192.921 A, what would be the best method
3 of inspecting that pipe?

4 A. Depending on -- could be either in-line
5 inspection or pressure testing.

6 Q. But direct assessment would not be the
7 appropriate method?

8 A. Correct. If it needed to be assessed.

9 Q. How do you make a determination if a pipe has a
10 manufacturing threat?

11 A. Not all threats need to be, not all
12 manufactured threats need to be assessed, but a
13 manufacturing threat is defined in both the B31.8S and in
14 the CFR 192, Subpart O, under "Threat Identification,"
15 which is, I think, section 917.

16 Q. Other than manufacturing threats, what are the
17 other threats that you'd be looking at to determine the
18 inspection method to use?

19 A. External corrosion, stress corrosion, cracking,
20 internal corrosion, and -- let's see -- I think that's
21 it. There are other threats to the pipeline, but they're
22 managed through other means than these tools.

23 Q. Right. Things like external threats, no amount
24 of inspection is going to lessen or account for; correct?

25 A. Correct. Even third-party damage, which can be
26 assessed for under ILI, is normally handled through the

1 management of excavation programs around the pipeline.
2 The USA program that you've all hopefully heard about,
3 "You call before you dig," that's part of that effort.

4 Q. So walk us through how you would assess the
5 threats and identify the best inspection method available
6 to deal with, to deal with threats on a segment of pipe.

7 A. It's described in RMP 06. And I don't have it
8 in front of me. And it's been a while since I've looked
9 at it. But threats, the nine threats to the pipeline are
10 divided into three categories, those that are
11 time-dependent need to be assessed if they affect the
12 pipe. The three time-dependent threats are the types of
13 corrosion.

14 PG&E had said that because all our pipes are
15 made of a ferrous material, steel or cast iron, that they
16 all need to be assessed for external corrosion. The
17 internal, whether they are susceptible to a threat of
18 internal corrosion and external corrosion, is the process
19 that is developed in RMP that I'm not real familiar with.
20 It would have normally -- that work would have normally
21 been performed outside of my group. And the product
22 would have given us, been given to us and we would have
23 just been told this line has internal-corrosion threat or
24 this line has stress-corrosion cracking threat. That's
25 the time-dependent threats.

26 Then the time -- then the stable threats that

1 do need to be assessed, the manufacturing threats are the
2 seam weld threats, would have come to us through leak
3 histories and through pressure monitoring.

4 If a line is -- there are some rules, and I'm
5 sure Marc will go through them a little later on, but
6 when a pipeline exceeds a certain, that's susceptible to
7 one of these manufacturing threats that has a seam that
8 needs, that can potentially have an active threat, sees a
9 pressure higher than it should see, then that threat
10 becomes activated, then they need to be assessed for.
11 That's one criteria. Then the other criteria would be is
12 if it has a history of leaks on the seam.

13
14 (Grand Jury Exhibit 639 was marked for identification.)
15

16 Q. I'm going to pull up and I have in front of me
17 Exhibit 639. Do you see Exhibit 639?

18 A. I do.

19 Q. Do you recognize Exhibit 639?

20 A. No.

21 Q. Okay. Well, let's walk through Exhibit 639.
22 It's up on the board.

23 A. Okay.

24 Q. "Decision Making In-Line Inspection Versus
25 Direct Assessment." That's the title of 39; correct?
26 639?

1 A. Yes.

2 Q. Presented to NACE External Corrosion Direct
3 Assessment Seminar. Do you know what that is?

4 A. I don't know what the seminar is. I know what
5 NACE is.

6 Q. What is NACE?

7 A. NACE is the National Association of Corrosion
8 Engineers.

9 Q. And this was presented by Robert P. Fassett,
10 Pacific Gas & Electric. Do you know Mr. Fassett?

11 A. Yes.

12 Q. Who is Mr. Fassett?

13 A. I believe I said he was my supervisor. And at
14 this time I think that was still true.

15 Q. Okay. It says on here, "Director Integrity
16 Management and Gas Issues, Pacific Gas & Electric." Was
17 that his position?

18 A. I don't know, but it sounds right.

19 Q. So this appears to be a presentation by
20 Mr. Fassett comparing in-line inspection versus direct
21 assessment; correct?

22 A. Yeah.

23 Q. So the introduction, "The decision as to what
24 technology to utilize for the baseline inspection of a
25 pipeline within an HCA must take into consideration a
26 number of criteria"; do you see that?

1 A. Yes.

2 Q. Do you agree with that statement?

3 A. Yes.

4 Q. What is a baseline inspection?

5 A. It's the first inspection done under that
6 Subpart O rule that we talked about.

7 Q. So one of those inspections that had to be done
8 between 2004 and 2012?

9 A. Actually, 2002. Some inspections that were
10 performed prior to the introduction to the rule can be
11 counted under the rule as meeting the requirement. As
12 long as it was done between 2002 and 2004 -- 2012.

13 Q. So goes on, "Subpart O of CFR 192 has some
14 sections which are prescription -- prescriptive.
15 However, it is mostly a performance-based standard which
16 allows gas transmission pipeline operators flexibility in
17 meeting the regulations as long as they can demonstrate
18 that they are operating a safe pipeline."

19 Do you agree with that statement?

20 A. Probably not.

21 Q. Why not?

22 A. Well, there are parts of regulation that allow
23 a operator to implement a performance-based program, but
24 we weren't one of the companies utilizing that system.
25 And it's separate from the -- we were using the
26 prescriptive work rule, and it is separate from

1 performance-based program. That's how I would read it.
2 I didn't write it, so I don't know what, exactly what Bob
3 means.

4 Q. What is a performance-based standard?

5 A. A performance-based standard under the rules
6 would be, these are the kind of results we're getting,
7 everything is working great, so we don't need to assess
8 quite as often. The prescriptive part of the rule would
9 say you can't -- you have to assess everything every
10 seven years after that first baseline assessment. And in
11 some cases every five years or less. But there are -- it
12 says, you know, you have to do this. You can't go beyond
13 seven years. Under a performance-based system, it could
14 be longer. But I don't know -- but PG&E didn't use that.

15 Q. Basically under a performance-based, as long as
16 it's operating safely, you don't have to inspect it?
17 Wouldn't that be a --

18 A. No. Well, you don't have to do the DA work.
19 There may be other requirements. Again, we didn't use
20 it, so -- and I'm talking about what I read into the
21 code. Again, I don't know what Bob means when he's
22 talking about this here.

23 Q. "Additionally, the methodology and technology
24 selected must be that which is best suited to address the
25 threats to a given pipeline section."

26 Do you understand that sentence?

1 A. I think he's referring to the section of the
2 code that you referenced earlier.

3 Q. I was going to say, that sounds a lot like the
4 language from 192. -- 192.921, Subsection A; correct?

5 A. That sounds right. Again, I just don't -- that
6 code section I don't have memorized.

7 Q. Do you agree with the statement in this
8 sentence?

9 A. I'd want to pull up the language of the code to
10 compare it to it. It sounds like, it sounds like that's
11 true. But, again, I want to have it right side by side.

12 Q. Okay. Let's go on. What's DOT?

13 A. Department of Transportation. PHMSA falls
14 under the umbrella of the Department of Transportation.
15 The Pipeline Hazardous Material Safety -- I can't
16 remember what the A is. But, in any event, all the rules
17 fall -- this rule is -- the Pipeline 192 is a DOT rule.

18 Q. We probably need to stop and define that. I'm
19 getting sideways looks from our court reporter. PHMSA is
20 P-H-M-S-A. And what is it, Pipeline --

21 A. -- Hazardous Material Safety Administration, I
22 believe.

23 Q. All right. So part 192.919. Will you read
24 that to us.

25 A. States, "The methods selected to assess the
26 integrity of the line pipe, including explanation of why

1 the assessment method was selected to address the
2 identified threats to each covered segment."

3 Q. And down below.

4 A. "Currently, pipeline operators have no industry
5 guidance on the assessment method to comply with
6 regulations and ensure pipeline integrity."

7 Q. Do you recall if that was true?

8 A. I would not agree with that statement, no.

9 Q. Basically when this was done in 2008, there was
10 -- what would be industry guidance?

11 A. B31.8.

12 Q. Okay. Okay. So you don't agree that there was
13 no industry guidance on the assessments that could be
14 used to comply with regulations and ensure pipeline
15 integrity?

16 A. In my opinion, no, but I don't know what Bob
17 was thinking of. Sure, if he gave this as a
18 presentation, he talked about it in addition to having
19 the slides.

20 Q. Right. We don't care about what Bob was
21 thinking. We're just going through with your impression
22 and helping us to understand this and whether you agree
23 or disagree with it.

24 A. All right.

25 Q. I think we're going to jump down to page 7,
26 PG&E draft process. Do you understand what the, this

1 section is talking about?

2 A. I'm not sure. I think so, but I'm not sure.

3 Q. Okay. There's ten things listed on this
4 presentation. Do you recognize any or all of those ten
5 items?

6 A. Yeah, although I can't explain all of them
7 anymore -- each one of them anymore, but I can explain
8 some of them.

9 Q. Okay. Let's start off with do you know what a
10 failure curve is?

11 A. That I can't give you good definition of. I
12 know it was -- and I can -- okay. No, offhand, I can't.
13 I'll let you ask the questions.

14 Q. How about CP shielding?

15 A. Yes. Cathodic protection shielding. The way
16 cathodic protection works is you apply a current to the
17 pipeline. And by applying that current, it completes a
18 circuit back to the point where your, the current
19 originates from by going, the current throwing along the
20 pipeline from outside the pipeline. And if the pipeline
21 is prevented from having the current come onto the
22 pipeline, that's called shielded, and it means that the
23 cathodic protection system won't work.

24 Q. Pig-able?

25 A. That means whether you can run one of the -- I
26 think it's talking about whether you can run one of those

1 smart pigs through the pipeline. There's all sorts of
2 different kinds of pigs, but the one that would have been
3 of interest for purposes of anything to do with System
4 Integrity would have been a smart pig.

5 Q. External corrosion threat?

6 A. It means the threat that the pipeline had to
7 external corrosion. Although plastic transmission lines
8 are allowed under the rules, they wouldn't necessarily be
9 susceptible to external corrosion, but steel pipelines
10 are.

11 Q. Internal corrosion threats?

12 A. We've talked about that already. That's the
13 threat of the pipe corroding from the inside out.

14 Q. CP interference?

15 A. That would be where you have two pipelines that
16 are right next to each other, they have their own
17 protection systems. One might be by company A, one could
18 be by company B. And they each have a cathodic
19 protection system that they applied. And those systems
20 can interfere with each other. The current can actually
21 cross from one pipe to the other. They can dig a hole
22 into the other pipe. That CP interference is talking
23 about the conflict between those systems.

24 Q. Long seam threat?

25 A. That refers to pipes that have a manufacturing
26 threat along the seam.

1 Q. Third-party damage?

2 A. That's dig-ins to the pipeline from people
3 operating around the pipeline.

4 Q. Ground forces threat?

5 A. That could be landslides, in California. And I
6 mentioned it in my email, earthquakes.

7 Q. And DA-able?

8 A. Means can the pipeline be DA'd? If there's a
9 lot of shielding, if there's -- there are times when,
10 even with just external corrosion, DA would not be an
11 appropriate technique.

12 Q. Go ahead, read to us the next paragraph.

13 A. "Although the TG is still in its infancy, PG&E
14 went ahead starting to revamp the tool selection process
15 we use internally. The new selection process at PG&E is
16 not finalized yet, but the following slides and
17 discussions are what make up the draft. These slides
18 make up the items PG&E is considering in the final draft
19 of our Risk Management procedure to address the tool
20 selection."

21 Q. What is TG, if you know?

22 A. I don't. I don't know.

23 Q. We've talked a little bit about failure curves.

24 Next page, page 8. Do you recognize?

25 A. Yes.

26 Q. What is this?

1 A. It's a curve. It's a series of curves showing
2 how -- when a pipe fails -- the most important part of
3 this curve is this one right here.

4 Q. So that's the --

5 A. Pipes that are --

6 Q. Darkest?

7 A. Pipes that have flaws that are on this side of
8 that line will tend to fail by rupture; those that are on
9 this side of the line tend to fail by leak. Rupture is
10 much more hazardous.

11 Q. When you say "this side," there's this dark
12 line that's marked M-A-O-P; correct?

13 A. Correct.

14 Q. When you say less likely to rupture, you're
15 talking about above that line?

16 A. No, this line right here.

17 Q. Right. Okay. Now you're talking about the
18 dark side?

19 A. Anything on this side is likely to fail by
20 rupture. That's what this mark is right here. Anything
21 on this side is chanced to fail by leak.

22 Q. The problem is she can't tell which is "this
23 side." So there we go. I'm going to give you a pen. So
24 now you can write on this. We've got all different
25 colors.

26 And, first, let's talk about the line we're

1 talking about. Make that red. Trace the line you're
2 talking about.

3 A. The leak versus rupture line.

4 Q. Okay. You've now traced that line in red.
5 We'll switch off to blue.

6 So when you're saying this side -- yes, this
7 side -- no, let's use some blue, another colored ink to
8 define terms.

9 A. Blue is where it's going to fail by leaking.

10 Q. Okay. Now green.

11 A. Green is where it's more likely to fail by
12 rupture.

13 Q. Okay. What part did this dark line that says
14 MAOP play in that calculation?

15 A. The -- what this is saying right here is that
16 the higher the -- well, let's see. That these curves are
17 different for each MAOP. And for this area for Maximum
18 Allowable Operating Pressure and this flaw depth in here,
19 that's indicated in the upper right side of this graph,
20 it's saying that this is the leak-versus-rupture line
21 that you're going to get.

22 Q. Okay. So this is something that somebody at
23 PG&E presumably would plot out these failure curves for
24 segments of line?

25 A. I don't think that's what happened with this.
26 I think this is from another report that's, that -- I

1 don't know that, but I know that as we're talking about
2 this, I do remember working on a process to, that was
3 referenced in one of the other slides about how we're
4 developing this new methodology for selecting inspection
5 tools. And I do remember looking at different failure
6 curves, and they were not anything PG&E developed, they
7 were from industry papers.

8 Q. Okay. All right. And we have saved your work,
9 and we will mark that later as --

10 A. Worthless.

11 Q. Nope.

12

13 (Grand Jury Exhibit 639A was marked for identification.)

14

15 GRAND JURY CLERK: 639A.

16 MR. NOEL: Yep. 639A.

17 It's now 11:59, so let's take a break for
18 lunch.

19 GRAND JURY FOREPERSON: Okay.

20 MR. NOEL: Okay?

21 GRAND JURY FOREPERSON: Yes.

22 MR. NOEL: You can read him the admonition.
23 He's getting used to this. He's already waiting.

24 GRAND JURY FOREPERSON: I could read it right.

25 THE WITNESS: I like to hear you talk.

26 GRAND JURY FOREPERSON: Thank you.

1 Mr. Manegold, you are admonished not to discuss
2 or disclose at any time outside of this jury room the
3 questions that have been asked of you or your answers
4 until authorized by the Grand Jury or the Court. A
5 violation of these instructions on your part may be the
6 basis for a charge against you of contempt of court.
7 This does not preclude you from discussing your legal
8 rights with your own attorney.

9 Mr. Manegold, what I have just said is a
10 warning not to discuss this case with anyone except the
11 Court, your lawyer, or the district attorney.

12 MR. NOEL: Got it? Break until 1:30.

13 GRAND JURY FOREPERSON: Break until 1:30.

14 MR. NOEL: Be back about 1:20, 1:25 so we're
15 ready to go.

16 (Lunch break taken.)

17 [ROLL CALL OMITTED.]

18 [DISCUSSION OMITTED.]

19 Q. (By MR. NOEL) Hi, Mr. Manegold. You're back,
20 you understand you're still under oath?

21 A. Yes.

22 Q. Before we start, I realized at the break going
23 through my notes that I never asked you to describe for
24 us or define for us what a "pig" is.

25 A. It's an instrumented device that -- well,
26 there's different types of pigs. A pig is a device that

1 goes through the pipeline, travels through the pipeline.
2 There's cleaning pigs, which is like a big styrofoam
3 thing that travels through the pipeline and pushes stuff
4 out of the pipe, whether it's water, oil, whatever else
5 is in the line. There's -- an ILI guy could tell you
6 more about them than I could. But that's what the pigs
7 do. There's pigs that have calipers on them that can
8 measure deformation as they travel along the pipeline, so
9 you can look for dents and deformations in the pipeline.

10 Then there's -- there's a smarter kind of a
11 pig. And then there's pigs that are called MFL tools.
12 And they induce a magnetic field around the pipe and they
13 measure the deformations in that magnetic field as they
14 travel. And those deformations are then interpreted by
15 an expert to say this change in the field means that
16 there's a loss of metal at this spot. And they use those
17 reads to -- and they're made up of a whole bunch of
18 sensors. And, and they use those reads to say, "Uh-huh,
19 we have damage here," and then it gets dug up and it gets
20 confirmed either it's what the damage they say.
21 Sometimes that damage needs to be repaired, sometimes it
22 doesn't need to be repaired, even though it's damage.
23 There's a small amount of wall loss, it doesn't
24 significantly affect the pipe's ability to handle the
25 pressure, and so they just leave it alone, or they could
26 put a repair sleeve on it or do something else.

1 Then there's another type of a smart pig, and
2 that's where they take those magnets that are on this pig
3 that create that magnetic field and they rotate them 90
4 degrees. And those pigs, which tend to be bigger than
5 the pig that's typically used, are really good at finding
6 axial flaws. And they're the kind of pigs that would be
7 used if you were interested in looking for seam defects,
8 which is what those failure curves that we looked at
9 before are used for as well. They're used in conjunction
10 with each other.

11 If the failure occurred -- we didn't talk about
12 it, but -- I did talk about it, but some of the curves on
13 there showed flaw depth-to-wall thickness, I think a
14 ratio. And if the flaw is a certain size -- the bigger
15 flaws show, are the ones that cause ruptures. If the
16 smallest of the flaws that can cause a rupture can be
17 found by that smart pig, the one that where the magnets
18 are rotating 90 degrees, then you can use that pig to
19 look for seam weld defects. And if the smallest defect
20 that can cause a rupture is beyond the resolving capacity
21 of the pig, then you can't use pigging as a tool.

22 Q. So in short, a pig that you're referring to as
23 an ILI tool is a man-made tool and not a four-legged
24 mammal?

25 A. Yeah. I guess I should have said that at the
26 start.

1 Q. So we're not setting loose little piggies
2 through the system?

3 A. No.

4 Q. All right. Now, going back one slide -- or one
5 page that we missed is page 5 of the Exhibit 539 -- 639,
6 sorry, entitled "Next Steps." And starts off,
7 "Initially: Stress, operation, and cost." And then goes
8 down and talks about cost, involvement of cost in the
9 tool selection process. "As stated before, originally
10 the main drivers for tool selection were stress level,
11 operational constraints, and cost, as was evidenced in
12 the previous slide."

13 Can you explain to us the role of cost in
14 determining the method of assessment.

15 A. Not just in assessment, but in any engineering
16 endeavor. If you have a bunch of different ways to
17 achieve the same result, you're generally going to use
18 the one that's the cheapest. And that's what this is
19 talking about.

20 Q. Okay. Is there a cost difference between
21 pressure testing versus ILI versus direct assessment?

22 A. Yes.

23 Q. Of those, which is the cheapest?

24 A. I'm not sure. I think DA. I say I'm not sure
25 because I know DA is cheaper than ILI, but I don't -- at
26 one time, I was familiar with the cost of all three of

1 them, but I never worked on all three of them together,
2 so I don't remember what the costs are for hydro testing.

3 Q. Was hydro testing a regular part of your
4 assessment methods?

5 A. Only for pipes that were brand new.

6 Q. Okay. So --

7 A. Because we were required to test anyway.

8 Q. When you're doing your assessments in the
9 normal course, hydro testing was not -- I mean pressure
10 testing was not one of the methods available for you;
11 correct?

12 A. No, I wouldn't say that. I'd say it was the
13 method of last resort. If, for instance, we talked about
14 the -- I talked about. I don't know why I say "we." I
15 talked about how smart pigs, the TFL tool, the one with
16 the 90-degree rotating magnets, can look for a seam weld
17 defect. We did that on one line where we had a seam weld
18 defect, we used a smart pig. But if we had determined
19 that the pig was not capable of resolving that defect
20 that could cause a rupture, we would have had to hydro
21 test the line. And that was a consideration.

22 Q. Okay. So your normal method would be ILI or
23 DA, and if for whatever reason you couldn't use ILI, then
24 pressure testing is on the table?

25 A. For seam weld defects, yeah. We didn't really
26 consider it for second assessments. We didn't consider

1 it for things that weren't manufacturing defects.

2

3 (Grand Jury Exhibit 640 was marked for identification.)

4

5 Q. All right. Let's move on to 640. This, again,
6 is a series of emails. Should have it in front of you.
7 It's four pages of emails.

8 A. Want me to read it through?

9 Q. Look through it and tell me if you recognize
10 640.

11 A. I recognize it's an email I was on the chain of
12 and participated in writing.

13 Q. So the initial email is sent Thursday, June
14 18th, 2009, by somebody named Frank Maxwell; is that
15 correct?

16 A. Yes.

17 Q. Who is Frank Maxwell?

18 A. Wait. I'm sorry, did you say -- yeah. 2009
19 you said?

20 Q. Yeah.

21 A. Frank was the, I believe at this time he was
22 the program manager for the expense budget in Gas
23 Transmission.

24 Q. Okay. Then this email was sent with -- to
25 someone named Les Buchner?

26 A. Buchner.

1 Q. Buchner. Do you know who he is?

2 A. I think he was Frank's boss.

3 Q. Steve Whelan, Trista Berkovitz, Robert Fassett,
4 Todd Hogenson, Glen Carter. Can you tell us who those
5 people are?

6 A. They were all people that, in the gas
7 department. Trista and Steve, I knew them, but I don't
8 know what their jobs were. Bob Fassett was, at this
9 time, again, I think he was my boss. Todd Hogenson was
10 the -- I don't know if he was a manager or director of
11 the pipeline group, I believe. And then Glen Carter was
12 the overall head of the gas engineering group.

13 Q. Okay. Then there's an additional list of
14 people to whom this was CC'd --

15 A. Right.

16 Q. -- correct? One of those being Sara Burke?

17 A. Right.

18 Q. Who we also know is Sara Peralta?

19 A. I don't think -- I could be wrong, but -- I
20 don't think she's my boss yet. I think Bob's including
21 her -- or, well, Frank did. I don't know why he put her.
22 I don't think she was my boss then. I don't think she
23 was in the department.

24 Q. At some point did Sara Burke, or Sara Peralta,
25 become your direct supervisor?

26 A. Yes.

1 Q. At that point, did Robert Fassett become Sara's
2 direct supervisor?

3 A. Yes.

4 Q. Okay. And this is an email about budgeting for
5 2010; correct?

6 A. Yes. That's what it looks like.

7 Q. And you're not included in that?

8 A. Not in that first incoming.

9 Q. But then in the second email from Robert
10 Fassett to yourself and Frank Dauby. Same day; correct?

11 A. Yes.

12 Q. And this is a -- he forwarded you the original
13 email from --

14 A. Next day.

15 Q. -- from Maxwell?

16 A. Next day.

17 Q. Next day?

18 A. First one, June 18th. This is June 19th.

19 Q. You're right. Sorry.

20 All right. So can you read us the email.

21 A. "Attached is the first cut of the 2010 budget
22 and prioritized final request is due by close of
23 business," COB, which stands for close of business,
24 "6/25/09. Please provide me with a list of the ILI jobs
25 for 2010, 2011, and 2012. And let me know if you've
26 already determined, one, whether or not they could be DAs

1 or not, and if they can be, what's the add to the DA
2 budge and the delete from the ILI budget; two, if all the
3 proposed jobs are in an HCA. If they're not in an HCA,
4 please provide justification. I'll need your response by
5 close of business 6/22."

6 Q. Okay. So let's start with number two first.

7 A. Okay.

8 Q. If the jobs aren't in an HCA, why do you have
9 to provide justification?

10 A. Okay. Okay. So you read what it said. Is
11 there a question?

12 Q. Yes. Why is that so?

13 A. Why is he asking that?

14 Q. Right.

15 A. I don't know.

16 Q. Why are you being told --

17 A. I assume he's thinking -- if I was to ask --
18 when I was asked that question, I would probably have
19 guessed he was thinking that since it was not in an HCA,
20 it would have been a discretionary job. It's one that we
21 could -- we would not have to, would not be compelled to
22 do by the code.

23 Q. Okay. And then this part, "Please provide me
24 with a list of the ILI jobs." This is the inline
25 inspection jobs; right?

26 A. Right.

1 Q. "For '10, '11, and '12." And then he wants to
2 know whether or not DAs can be substituted for the ILI
3 jobs?

4 A. Yes.

5 Q. Why would you substitute DAs for ILIs?

6 A. I don't know why he wrote that. I assume it's
7 cost, but I don't know.

8 Q. Okay. Let's go up. The second one from him,
9 then your response.

10 All right. So then on Monday, June 22nd, you
11 respond. Can you read the first paragraph of your
12 response.

13 A. "Our current assessment plan is based on our
14 current assessment criteria, which we have been working
15 to revise. The current criteria does not really address
16 reassessments, so if it was ILI'd the first time, it
17 would be ILI'd the second, et cetera. The effort Kevin
18 has been leading will address that issue. Kevin is
19 planning one last get-together to review the assessment
20 selection criteria we've come up with prior to presenting
21 you our results for comment. Currently that criteria
22 will still probably lead to most of the first-time
23 assessments for these lines remaining ILI. To pick
24 another method, as you know, we will need to be able to
25 say that the other method is the best method for
26 assessing the threats to the lines that require

1 assessment."

2 Q. So explain this last sentence to us, please.

3 A. When I wrote that, I believe that the section
4 of the code that we previously referred to meant that if
5 we had two, the same threat of external corrosion to be
6 assessed by ILI or DA, if we thought one was better at
7 doing that, we had to pick the better of those two. I
8 didn't think that later on, but I did think that when I
9 wrote this.

10 Q. Okay. Then you give a list of different lines.
11 You talk about the cost for DA; correct?

12 A. Yes.

13 Q. All right. So Frank -- or Bob Fassett is
14 asking you guys what scheduled ILI assessments can be
15 changed to DA assessments; correct?

16 A. Correct.

17 Q. He's doing that in response to an email talking
18 about the budget for the coming year; correct?

19 A. That's what it looks like.

20 Q. And your response to him is, we got to use the
21 best method to do the assessment?

22 A. That's one of the things that I wrote in here.

23 Q. So now Bob Fassett responds to you that same
24 day. And where I want to go is starting the second
25 paragraph of, "Also."

26 A. "Also, I'm not familiar with the requirement of

1 picking the best method for assessing the threats to the
2 line that require assessment for assessing the HCA
3 portion of a pipeline or what criteria the codes provides
4 for determining best method for assessing the threats to
5 the line that requires assessment."

6 Q. Okay. This is in June of 2009; correct?

7 A. Correct.

8 Q. If we go back to 639, this is a presentation in
9 January of 2009; correct?

10 A. Correct.

11 Q. By Mr. Fassett, the same guy who is writing
12 that email?

13 A. Correct.

14 Q. In this email, doesn't Mr. Fassett say that the
15 code requires that you pick the best method based upon
16 the criteria?

17 A. It looks like that.

18 Q. Again, "Additionally, the methodology and
19 technology selected must be that which is the best suited
20 to address the threats to a given pipeline section."

21 So that's basically what he's asking you about
22 in that email, saying, "I had no idea"; is that correct?

23 A. It appears that way.

24 Q. This is the guy that's the boss of the
25 Integrity Management Program; right?

26 A. Yes, he was the, he was the lead supervisor.

1 Q. Now, you responded to Mr. Fassett the next day.
2 I want you to read the second paragraph.

3 A. "The requirement I paraphrased is 192.921(a).
4 An operator must select the method or methods best suited
5 to address the threats identified to the covered
6 segment."

7 Q. So somehow Mr. Fassett wasn't aware of that; am
8 I reading the email correctly?

9 A. I don't know what Bob was thinking.

10 Q. So he wants to do DA instead of ILI, and you're
11 trying to explain to him why you can't do that; correct?

12 A. I'm trying to tell him what some of the
13 considerations are and make sure that he's considered
14 all, make sure he's considered everything that he needs
15 to consider in making changes.

16 Q. Now, eventually Bob Fassett became the big
17 boss; correct?

18 A. "Big boss." What does that mean?

19 Q. It went Bob Fassett, then Sara Peralta, slash,
20 Burke, then you; right?

21 A. I think Sara was inserted in that hierarchy,
22 but I think Bob is already in charge of the System
23 Integrity Program I think at this time.

24 Q. Okay. When you started in System Integrity
25 back in 2005, what was Bob Fassett's position?

26 A. I think he was the supervisor of the DA group.

1 Q. So the group that did the DA assessments?

2 A. Correct. That's my recollection.

3 Q. What's the job of Frank Dauby?

4 A. He was in the Pipeline Engineering group, and
5 he supervised the ILI.

6 Q. During your time in Integrity Management, was
7 there friction between Fassett and the DA group and Dauby
8 and the ILI group?

9 A. I wouldn't characterize it that way. It may be
10 true, but it's, it's not what I observed. What I
11 observed was there were disagreements sometimes between
12 what Bob thought should be DA'd and what Frank did. But,
13 yeah, so I don't know if that's friction. I observed
14 that.

15 Q. Would it be fair to say that Mr. Fassett and
16 the DA group were pushing DA for everything?

17 A. Bob thought it was a good tool; he would want
18 to use it for a lot of different projects.

19 Q. It was also the cheapest tool; correct?

20 A. From what we just saw, almost always, yes. Not
21 always, but almost always.

22 Q. So what role did the budget play in determining
23 which assessment tools were used?

24 A. I'd have to go back and look at the assessment
25 criteria. It's in RMP 6. And then I referred to it in
26 email, but proof that Kevin talked about it. I'd have to

1 say what they said. I don't remember off the top of my
2 head.

3 Q. But in reality, what role did cost play?

4 A. Well, it was important, but obviously it wasn't
5 definitive or we wouldn't have been ILI'ing lines,
6 because we could have DA'd almost everything. And it was
7 cheaper, but we didn't do it. So it was a consideration.
8 But, again, to give you a better answer, I'd want to look
9 at the criteria and then look at when they -- when they
10 originally decided what they were going to ILI and DA,
11 there was a study done. That was before I got there, but
12 the results of that study would probably be some
13 information about that as well. I don't have it.

14

15 (Grand Jury Exhibit 641 was marked for identification.)

16

17 Q. Let's talk about budgeting. Let's start with
18 the 2008 budget. You have in front of you what's marked
19 as 641.

20 A. Okay.

21 Q. Recognize 641?

22 A. I don't remember it, but I wrote it, so.

23 Q. Okay. Well, it starts off, the initial email
24 in the chain is from Frank Maxwell again, on July 3rd,
25 2008. It's addressed to yourself and Kevin Armato. And
26 remind us who Kevin Armato is.

1 A. It's addressed to Bob. The first one down
2 below? Kevin was the, at this time, 2008, I think he was
3 the head of the DA group, but I'm not sure. I'm not sure
4 is my answer. I don't know. And the reason I say that
5 is because there were just a lot of organization changes,
6 and I just don't remember the timing on them --

7 Q. Okay.

8 A. -- real well.

9 Q. So what is the subject of this initial email
10 from Frank Maxwell?

11 A. IM Expense Program -- reforecasting and
12 reductions.

13 Q. Explain to us the topic of this email.

14 A. Well, it's Frank's title, but I assume what
15 he's saying is that he's been asked -- or he's performing
16 a new forecast, end-of-the year forecast for spend on --
17 doesn't say in here, does it? Yeah, it does. Looks like
18 he's looking at trying to get a new estimate of what the
19 cost will be at the end of the year and the expense
20 program and looking for, probably looking for reductions.
21 I don't know if it says that, but I would guess it does
22 because of what I wrote on the top.

23 Q. Specifically says, asks you, "Please work with
24 the project managers to reduce spending in 2008 while
25 still accomplishing program objectives."

26 A. Okay.

1 Q. Is that correct?

2 A. Where do you see that?

3 Q. That's right in the middle of the third -- the
4 second paragraph. "As a second step --"

5 A. Okay. Yes, I see that.

6 Q. So we're talking about budget problems here?

7 A. He's looking for budget reductions. That's
8 what it looks like.

9 Q. Okay.

10 A. Starts it off by saying that the program is at
11 great risk of overrun. So whatever has been forecast is
12 now expected to go above that forecast. He's looking for
13 reductions.

14 Q. And then you respond to this on July 17, 2008?

15 A. Yes.

16 Q. And go ahead, read us your response.

17 A. "We met" -- I'm writing this to Bob Fassett and
18 Kevin Armato. "We met with Frank Tuesday and let him
19 know that we could make some reductions through the rest
20 of the year. For my part, I let him know that I had
21 budgeted my time to the year completely for Transmission
22 and would be charging more to Distribution throughout the
23 end of the year, so I gave back 50k." I didn't make that
24 much. But, "Kevin was able to make even larger
25 reductions. I let him know, though, that I may be asking
26 for more money later for the semi-annual leak surveys.

1 Most of that work is in the future, and there are a
2 number of factors that could cause our forecasted costs
3 to be in error. We won't really know until they do that
4 work, mostly in the September-October time frame."

5 Q. All right. So in 2008, summer 2008, you're
6 running into budget problems in Integrity Management;
7 does that accurately summarize?

8 A. It looks -- well, Frank is looking at
9 reductions in the overall spending for GT. That's what
10 his email is about. He's looking at different
11 departments to make reductions in. The email he wrote to
12 Kevin and me was to look at IM in particular. He's
13 asking if we can reduce what was projected for spending
14 year.

15 Q. Let's move on to 642.

16 A. What page are we on?

17 Q. Well, first, do you recognize 642?

18 A. Doesn't look like I was copied on it, and I
19 don't recognize it.

20 Q. Okay. Well, I want to go over -- okay. So
21 strike that one then.

22

23 (Grand Jury Exhibit 643 was marked for identification.)

24

25 Q. Let's go on to 643. Do you recognize 643?

26 A. I'm copied on it. Again, these are all, this

1 one is, what, 11 years ago? I don't remember it.

2 Q. Right. But it's the, an email chain that
3 you're part of?

4 A. Yes.

5 Q. So this is an email chain, starts with an email
6 from Frank Maxwell on July 2nd; is that correct?

7 A. Yes. 22nd, yes.

8 Q. 22nd. This was CC'd to you?

9 A. Correct.

10 Q. So what is the subject of Frank Maxwell's
11 initial email?

12 A. He says, "Follow-up to IMP discussion at work
13 prioritization meeting 7/18."

14 Q. What is IMP?

15 A. Integrity Management Program.

16 Q. Okay. And in general, what is the topic of
17 this email?

18 A. Let me read it a little more carefully.

19 It looks like it's steps that we can take to
20 reduce the IM cost for the end of the year, and what, and
21 what we can't change. What we can and what we can't
22 change, both.

23 Q. Okay. And then above that there is a response
24 from Bob Fassett that's again CC'd to you and others.

25 A. Yes.

26 Q. What's a weekly LT meeting?

1 A. I think, but I don't know, I think -- I should
2 say I don't remember, but I knew at the time, I think it
3 means local -- yeah, local -- leadership team. I think
4 that means leadership team.

5 Q. So can you read us the text of Mr. Fassett's
6 email.

7 A. "Frank, at Bob Howard's weekly LT meeting
8 today, Les mentioned we're forecasting a 1- to \$1.3
9 overrun for Transmission expenses. Any chance you can
10 call a meeting with Todd, Dan, Kevin, Bill, and myself to
11 review the overall Transmission expense budget and see
12 where we might be able to make some tough cuts?"

13 Q. So you're having to cut budget in the middle of
14 the year; is that correct?

15 A. That's what it looks like, yeah.

16 Q. Who is Les?

17 A. Les Buchner; I believe was Frank Maxwell's
18 boss.

19

20 (Grand Jury Exhibit 644 was marked for identification.)

21

22 Q. All right. Let's go on to 644. Do you
23 recognize 644?

24 A. Same thing. It's -- I mean, I wrote this, at
25 least the top part, and -- but I don't remember writing
26 it. Obviously, it's too long ago, so --

1 Q. All right. Just, in general, what's the topic
2 of the emails in 644?

3 A. It looks like -- let's see. Let me read the
4 bottom part.

5 Looks like what Frank is asking is he's letting
6 us know that the, that the budget is, for 2009 is low,
7 and it looks like it's the same as 2008, and he wants to
8 know if there's things that we planned for the year that
9 can be deferred until later but still be in compliance.
10 That's what the, "can we still catch up" refers to. I
11 talked before about that we have five years, we have
12 until 2012 to complete all of the work, but there's no
13 requirement that it be done 2010 or '11 or '8, it just
14 has to be done by December 17th, 2012.

15 Q. Okay. So the initial email here is from Frank
16 Maxwell; is that correct?

17 A. Yes.

18 Q. And, again, it's to yourself and several other
19 people: Kevin Armato, Frank Dauby, Bob Fassett, Brian,
20 Brian Daubin?

21 A. Yes.

22 Q. Can you read the email, please.

23 A. "Bill, Kevin, Frank, as expected, we got
24 saddled with a very low 2009 budget. What was unexpected
25 was how low it was, basically equivalent to 2008.

26 The below are the IM projects planned for 2009.

1 I am meeting with Bob Howard and Les to discuss what can
2 be reduced to make ends meet. I realize you have already
3 significantly scrubbed this list, but I must ask again if
4 there are any reductions that can be made while
5 maintaining compliance. Maintaining compliance needs to
6 be broadened to now include deferring some projects a
7 year or more while still retaining feasibility to meet
8 the goals in December 2012. That is, if we can fall
9 behind the 2012 pace a little and still retain
10 feasibility to catch up, I ask that you consider that
11 option when looking for reductions. The comments column
12 below has some questions I need answers to as well as
13 some ideas for places to look.

14 Thanks for your help. Anything I hear from you
15 by Wednesday would be helpful in my meeting with Bob and
16 Les.

17 Q. And then there's a bunch of columns that are
18 very difficult to read. Can you tell us what these
19 columns represent?

20 A. The heading -- so if you scroll back up a
21 little bit, I think there's the heading.

22 The Budget PV, I don't know what that is.

23 The PSRS ID was the job tracking tool that we
24 had that was online that allowed us to share cost of the
25 different projects we were working on.

26 The District and the Job Name. So the district

1 would apply to -- again, these are headings for a general
2 system. In this case, the job name I think is probably
3 the only thing that's relevant.

4 The Project Manager is who was in charge of
5 that particular project. So, for instance, at the bottom
6 of the chart, on the semi-annual leak surveys and the
7 risk and Integrity Management budget.

8 The Forecast for 2008 is the next column over,
9 which shows what we planned for 2008. And I don't think
10 it shows what we, I don't think that's an actual spend, I
11 think that's a forecast. And I don't know what date that
12 forecast was made, but presumably it's in the past.
13 Unless it's forecasted for 2009. So I'm not sure what
14 that column is at this point.

15 Operational Plan Budget Request for 2009 is
16 listed as the next column over.

17 Then the Cumulative Total, I don't know what
18 that means.

19 Q. Okay. So as we go down, these are, these are
20 projects that Maxwell is asking for you to see if
21 anything you can cut money out of them; correct?

22 A. Yeah, looks that way, although some of these
23 people aren't in our groups.

24 Q. But there's projects on here with project name,
25 ILI, Project Manager Frank Dauby. Multiples of those;
26 correct?

1 A. Correct.

2 Q. So those would be ILI projects scheduled for
3 the next year?

4 A. ILI projects were multiple-year projects, but
5 there was work planned to be done as part of that ILI.
6 It doesn't mean that the ILI would be performed, but
7 means there was work done for it.

8 Q. Okay. But one of the suggestions is we cut,
9 cut budget on ILI projects?

10 A. That's one of the suggestions. They could all
11 be run this year, I just don't know.

12 Q. Right. What was unexpected was how low it was,
13 basically equivalent to 2008. That's what Mr. Maxwell
14 says; correct?

15 A. Correct.

16 Q. Now we just went through the second half of
17 2008. And your budget appears to have been woefully
18 insufficient in 2008; is that correct?

19 A. Woefully insufficient? I guess I wouldn't
20 characterize it that way. I think I told you when,
21 again, when we met earlier, that for my group it was
22 enough.

23 Q. Okay. But for other groups with Integrity
24 Management, cuts were having to be made at the end of
25 2008 to stay within the budget?

26 A. That's what it looks like. Changes were made,

1 right.

2 Q. So now you're going into 2009 with the same
3 budget that you had in 2008; correct?

4 A. Correct. Pretty much. It says very low,
5 basically equivalent.

6 Q. Now, two days later, on October 22nd, 2008, you
7 responded to Mr. Maxwell. Can you read us your response.

8 A. "Frank, here are some comments on the budget.
9 We can probably knock the leak investigation budget down
10 to 200k again in 2009."

11 Q. What's the leak investigation budget?

12 A. The code requires that, the federal code for
13 pipelines, the CFR 192 part -- 49 CFR 192 requires that
14 all leaks be investigated. But we -- and there are a
15 lot, there were a lot of leaks in the system; maybe,
16 between distribution and transmission, maybe 17,000 a
17 year. But we had very few leaks in the -- on HCA piping;
18 maybe 12 a year. Around that. It was that order of
19 magnitude, the number of leaks.

20 And the typical leak investigation on those
21 17,000 would be the foreman would have the leak dug up,
22 looked at it, it's rusted out and it's leaking, okay,
23 mark it as a corrosion leak or they find out that
24 somebody hit it with a back hoe and they put it down as
25 third-party damage. And that would be the investigation
26 that they'd do.

1 But for HCA leaks, the very small number of
2 them, we thought we needed a more in-depth analysis of
3 what happened. And we assigned money to look at some of
4 those leaks, especially to be able to -- leaks that have
5 been repaired. Dig them up, cut them out, and do
6 detailed metallurgical examination of the failed
7 sections. That money was allocated to my group, because
8 we used that to, as part of our risk analysis that we did
9 after the assessments. And sometimes they were in areas
10 that had not been yet assessed. And occasionally they
11 were in areas that we had already assessed. And those
12 were really important, because when we're getting leaks
13 in areas that we've already assessed, that's a big flag
14 that maybe there's something that we need to re-look at
15 in our assessment system.

16 The money that we had in the budget was based
17 on the first year that we started doing this when we had
18 to dig up a section of line 153 in Oakland. It's a large
19 pipeline. I think it's --

20 Q. We will get to that in a minute.

21 A. Well, that's -- so the budgets were based on
22 cutting -- digging that up, cutting it out, and examining
23 it. And it was, it was a very expensive dig. But in
24 subsequent years what we found was -- so that's what I
25 asked for every year based on that. Let's say we
26 multiply that by X, this is how much money we need. But

1 we just weren't getting that many leaks. We were winding
2 up with money unspent at the end of the year. And I had
3 talked to Frank about it, and I told him, "You know what,
4 we're not getting these leaks, but I really don't want to
5 give up this money, because if we get a bad leak, you
6 know, I won't be able to have it investigated."

7 And he assured me, "If you need to do this, if
8 you can give me this money now, if you really need it,
9 we'll get it back."

10 Q. Okay. So this was the money that was put aside
11 for doing root cause analysis on leaks in high
12 consequence areas?

13 A. Primarily, although if there was a leak outside
14 of a high consequence area that was significant, the
15 money would also be spent on one of those.

16
17 (Grand Jury Exhibit 645 was marked for identification.)
18

19 Q. So let's go on to Exhibit 645.

20 A. Okay.

21 Q. Recognize 645?

22 A. Same comment. Well, part of this is exactly
23 what we just read. And there's stuff that's been added
24 on.

25 Q. Starts off with the same October 20th email
26 from Frank Maxwell?

1 A. Right.

2 Q. Then multiple responses from Frank Dauby.

3 A. Right.

4 Q. You're CC'd in on the ones, you're included in
5 the two lists for the responses?

6 A. Right.

7 Q. So the first one says, "My team is evaluating
8 again and looking into options regarding L-300A, but, of
9 course, it's not without risks."

10 Do you know what that alludes to?

11 A. I mean, I know it's 300, line 300A, but -- we
12 have two lines that parallel each other, 300A and B, that
13 run from the border with Arizona all the way up to
14 Milpitas station. And we have a number of different
15 projects along the line. Which one in particular, I'm
16 not sure of. I sort of think I know what it is, but I am
17 not sure.

18 Q. Well, was 300A slated for an ILI?

19 A. Not the whole line, but part of it. So we
20 divided it -- for the pig runs, it's a very long run of
21 pipe, it's a couple hundred miles, so we would have
22 divided that up, the sections that were going to be ILI'd
23 I think at that time. And it would have been the whole
24 line, but we had two different projects I think planned
25 for 300A at that time. But again --

26 Q. Okay.

1 A. -- the -- if you have a copy of the list from
2 that time, it would be more complete. And I don't have
3 that right here.

4
5 (Grand Jury Exhibit 646 was marked for identification.)
6

7 Q. All right. Let's go on to 646 -- 646, I'm
8 sorry. Do you recognize 646?

9 A. Well, the top part I didn't get, but the bottom
10 part I did. So let me look at that.

11 Q. Okay. So starts off, again, with an email at
12 this time from Frank Dauby.

13 A. Right.

14 Q. CC'd to you?

15 A. Yes.

16 Q. And this is specifically as to the L-300A
17 reinspection project?

18 A. Yes. Is it the same one? It may be the same
19 one. Okay.

20 Q. Okay.

21 A. Okay.

22 Q. Why don't you go ahead and read us the first
23 paragraph.

24 A. "Guys, I understand you are considering ways to
25 reduce the 2009 expense budget and wanted to let you know
26 my take on the L-300A reinspection for 2009. Both

1 sections from Panoche to Hollister and Hollister to
2 Milpitas were inspected by Rosen in 2002, and the HCA
3 portions of both sections are due for reinspection 2009,
4 seven years. The southern section only has 2.1 miles of
5 HCA out of 57.5 miles, while the northern section has
6 23.7 miles of HCA out of 52.1 miles of pipeline. As most
7 are aware, the Rosen run in 2002 was flawed and the
8 resulting work required a, over \$5 million to perform
9 inspections, repairs, and replacements in 2003. The lack
10 of good correlation between the ILI run and the field
11 conditions were eventually addressed by Rosen, and they
12 reissued their reports to PG&E in January 2005, having
13 used a section of pipe cut out of L-300A to calibrate the
14 results. PG&E performed an additional 4 digs on L-300A
15 in 2005, and Chih-Hung issued amendment reports for both
16 sections of L-300A and the final version of the L-300A
17 south, attached.

18 Q. Who is Rosen?

19 A. Rosen was an ILI vendor. There are a number of
20 different companies that sell the service of performing
21 ILIs. PG&E doesn't do that. Most operators, but not
22 all, most operators don't do it themselves, they contract
23 out. Rosen is one of those contractors. I think an
24 international firm.

25 Q. So let's go on.

26 A. "I believe we have several options as to how to

1 proceed with the reinspection of L-300A.

2 One, the original plan was to re-ILI both
3 sections of L-300A. And we have been working toward that
4 goal the last several weeks. Forecast cost is 2.4
5 million for 2009. When we had our project kickoff
6 meeting on October 16th, it was suggested that we
7 consider inspecting the entire line in one run. Since
8 then, we have confirmed that this is feasible and should
9 be significantly cheaper than performing the runs
10 separately. Forecast cost, approximately \$1.7 million
11 for 2009. There is an increased risk of having the tool
12 damage prior to getting into the HCA section of north of
13 Hollister, but the pipeline has been previously cleaned
14 and inspected and the vendors support this option.

15 Two, another option is to inspect either the
16 north or south portion of L-300A in 2009 in order to gain
17 more confidence in the reissued results from Rosen's
18 original run and use those results to decide if pigging
19 the remaining section is justified or not. We would also
20 need to DA the HCA not ILI'd, but that would only be 2.1
21 miles for the southern section. The unfortunate part
22 about this option is that it could drive us to ILI the
23 remaining section, probably southern, in a subsequent
24 year and the combined cost of both projects would then be
25 more than inspecting them together in 2009. Forecast
26 cost \$1.2 million for the ILI plus point one thousand,

1 plus point -- \$100 --" I think that's a mistake. I think
2 that means "\$1,000 for DA in 2009. Note this does not
3 include ILI digs or future reinspections."

4 Q. So there's a pretty significant cost difference
5 between ILI'ing and DA'ing; is that true?

6 A. In this case. But, again, as he points out,
7 they're going to ILI a heck of a lot more than DA. In
8 general, the ILI would be more expensive.

9 Q. Then keep ongoing.

10 A. The final option is to not ILI either section
11 and rely entirely on DA for the 2009 reinspection. If
12 the Rosen inspection had been flawed, I believe this
13 would be a very reasonable option. The concern about
14 DA'ing the HCA portions of either pipeline section --

15 Q. Let me interrupt you. It says, "If the Rosen
16 inspection had not been flawed"; correct?

17 A. Correct.

18 Q. Okay. You skipped over the "not."

19 A. Oh, I'm sorry.

20 Q. So go ahead.

21 A. "Had not been flawed, I believe this would be a
22 very reasonable option. The concern about DA'ing the HCA
23 portions of either pipeline section is the probability of
24 having locations that were not identified by the original
25 ILI tool in 2002 and would not be inspected by the DA in
26 2009, say non-HCA locations, or not identified by the DA

1 technology and the resulting risk that such an anomaly
2 could result in leak or rupture prior to the next
3 reinspection in 2016. This is a very difficult situation
4 to analyze because we can't rely on tool tolerance or
5 other data to calculate this probability. Forecast cost
6 25.8 miles times \$50,000 per mile, equals 1.29 million in
7 2009."

8 I'm reading, but I'm not understand some of
9 this stuff, just because I'm reading out loud. Do you
10 want me to go on?

11 Q. No. No, but I think we've hit everything.

12 Basically summarize it, Mr. Dauby here is
13 saying we're supposed to ILI this line and justifying why
14 it should be ILI'd; correct?

15 A. That's part of what he's doing, yes.

16 Q. Okay.

17 A. That I think he's doing, yes.

18 Q. All right. So let's move up to the response
19 from Todd Hogenson.

20 A. And read that?

21 Q. Yes.

22 A. "Frank, thank you for your analysis and
23 recommendation. Let me provide some insight into 2009
24 GT," that's Gas Transmission, "expense budget situation.
25 We have currently budgeted \$18.5 million to Major Work
26 Category II, Gas Transmission Integrity Management

1 Program in 2009. This leaves \$8.5 million for all other
2 GT expense work, which includes engine/compressor
3 overhauls, compressor rentals at McDonald Island,
4 pipeline class location and uprates, emergency
5 unforeseen, leaving about \$10 million in projects
6 unfunded."

7 Q. So would the assessment program be considered
8 expense work?

9 A. Part of it is. There's expense and capital to
10 the IM Program. Frank's work was the purest mixture of
11 both.

12 Q. All right. Go ahead.

13 A. "Suffice it to say, the project expense budget
14 cuts are very deep. We're not able to fund all Priority
15 1 work at this time."

16 Q. What is Priority 1 work?

17 A. I don't know.

18 Q. Okay. Go ahead.

19 A. "As much as I would like to support your
20 recommendation to ILI L-300A north of Hollister, I'm not
21 sure it's the highest priority work within GT if ECDA is
22 an option. The Pipeline Integrity Team should take the
23 lead and identify ways to further reduce Major Work
24 Category II 2009 expense costs. Everyone is being asked
25 to make significant cuts to address the 2009 expense
26 budget."

1 Q. Basically, Mr. Hogenson is saying, our budget
2 cuts are deep, we don't have enough money, so you're not
3 going to do ILI if DA is an option; is that correct?

4 A. No, I wouldn't say that. I think what he's
5 saying is he can't support it, but he's not -- I don't
6 think he's saying this is the final word at this point.

7 Q. Okay.

8 A. I think there was -- because I do remember a
9 meeting about the line that Rosen and I ILI'd between.
10 That must have come after this time, because it was at
11 that meeting that a decision was made.

12

13 (Grand Jury Exhibit 647 was marked for identification.)

14

15 Q. Let's move on to 647. This one's a little
16 difficult to read.

17 A. Okay.

18 Q. All right. So starting at the end, this starts
19 with an email from Daniel Menegus?

20 A. Dan Menegus.

21 Q. Who is Dan Menegus?

22 A. At this time, I think he was the supervisor of
23 the station group. I think. But I'm not sure. And from
24 what he's writing here, it looks like that's right.
25 That's what he was, supervisor of the station. That's
26 what I believe he was.

1 Q. And you're not involved in the initial email?

2 A. I don't know if I'm involved in any of these,
3 am I? Yeah, I don't think I'm on any of them.

4 Q. Okay. What I want to go through is right in
5 the middle, this is on page 2, and this is a November
6 26th email from Frank Maxwell.

7 A. Okay.

8 Q. This is going to Todd Hogenson and Daniel
9 Menegus. See that?

10 A. Yes. Did you want me to read it out loud?

11 Q. Sure.

12 A. "Dan, Todd, I have finished the analysis to
13 determine what must be done to meet the 2008 \$1 million
14 expense reduction commitment. Unfortunately, we will
15 have to defer work into 2009. While I thought we could
16 capture enough monies to avoid deferral, some forecasts
17 could not be reduced as expected, and LT," which means
18 Local Transmission," mark and locate costs have jumped
19 due to new time reporting processes in the division."

20 Q. That's good enough. So here we are now at the
21 end of 2008 and we're deferring work because of budget
22 cuts; correct?

23 A. Right. It looks like this is before that last
24 email I read; is that right?

25 Q. Uh-huh.

26 A. Okay. So it's deferring.

1 Q. And do you recall that condition in 2008?

2 A. No.

3 Q. You don't recall that work was being deferred?

4 A. No, I don't recall it.

5 Q. All right. So now we're going to go to the

6 top, the last in the -- who is Jack Dunlap?

7 A. I don't remember.

8 Q. Okay. What is Gas Operations Engineering?

9 A. Where is that?

10 Q. Down below in the signature line.

11 A. I guess that's his group.

12 Q. Okay. So it says, "The 2009 expense funding

13 appears to be even more challenging than 2008, so making

14 the best possible spending decisions will be critical";

15 is that correct?

16 A. Yes, that's what it says.

17 Q. Do you know what the F-O-G process is?

18 A. No, I don't.

19

20 (Grand Jury Exhibit 648 was marked for identification.)

21

22 Q. Okay. Let's go on to 648. Do you recognize

23 648?

24 A. No.

25 Q. Have you ever seen budget documents like this?

26 A. Not that I recall.

1 Q. Okay. Well, we start off 2009, approved
2 budget, 94.6. I'm going to assume that's millions of
3 dollars; correct?

4 A. I've never seen -- it says at the top "millions
5 of dollars."

6 Q. Pipeline Integrity Management, that's column
7 number 2, under Decreases and Costs; correct?

8 A. Yeah. So I was wrong, it's not II, it's 11.
9 So I misrepresented.

10 Q. Okay. That's --

11 A. Well, I take it back. I don't know if that's
12 what that means or not, but it's line 11 on this form.

13 Q. That's your group; correct?

14 A. I'm under that group. I don't think I had any
15 capital work assigned to my group, so I think everything
16 we did was under that category.

17 Q. Okay. So your budget is being reduced for
18 Pipeline Integrity Management work going into 2009;
19 correct?

20 A. The work that my group fell under falls under
21 this, but it's not all the work, so I don't know if my
22 group was cut besides what I volunteered to Frank or not.

23 Q. Okay. Well, it says, "Reduce forecast of
24 Pipeline Integrity Management work"?

25 A. Okay.

26 Q. Is that -- and that's your group; correct?

1 A. It also includes Frank and Kevin and everybody
2 else. But I'm in there.

3 Q. Okay.

4 A. Yeah.

5 Q. You were in the Risk Division, Risk Management
6 Division, of the Pipeline, of the Integrity Management
7 Group?

8 A. At this time, it would have been called System
9 Integrity, but yeah.

10

11 (Grand Jury Exhibit 649 was marked for identification.)

12

13 Q. Let's go on to 649. Another email chain. This
14 one from October of --

15 A. Can I see, go see my lawyer?

16 Q. Sure.

17 A. I'll be back in about five minutes.

18 MR. NOEL: Actually, you've got to ask her.

19 THE WITNESS: Can I leave?

20 GRAND JURY FOREPERSON: Yes.

21 MR. NOEL: Take a break? We've been going an
22 hour.

23 GRAND JURY FOREPERSON: Yes, let's take a
24 break.

25 (Break taken.)

26 GRAND JURY FOREPERSON: All members of the jury

1 are present and accounted for.

2 MR. NOEL: Ready to resume?

3 GRAND JURY FOREPERSON: Yes.

4 Q. (By MR. NOEL) All right. We were talking
5 about this email in October, October 8, 2009. This is
6 from Frank Maxwell again. You said he's the -- what was
7 the term you used for his title?

8 A. Gas Expense Program Manager. I believe that's
9 what his title was.

10 Q. So can you read the first paragraph to the
11 email.

12 A. "GT expense steering team and representatives:
13 Last week Les and I met with Bob Howard to discuss the
14 year-end forecast for Gas Transmission expense. At the
15 time of the meeting, we still had 1, a \$1.1 million gap
16 to close, and I proposed a short list of available
17 actions, both known actions and potential actions, to
18 close the gap. In the meeting, our prior plan was
19 reaffirmed to seek further reductions or deferrals to
20 close the gap and return to budget. Additionally,
21 because of increasing overruns on Gas and Electric
22 Distribution, we have been asked to reduce the year-end
23 forecast to as low as possible with the goal of \$93.6
24 million, or \$1 million under."

25 Q. Again you're being asked to cut your budgets in
26 the Gas Transmission Division; correct?

1 A. I'm not copied on it, but that's what it looks
2 like is happening.

3 Q. Okay. Do you remember that happening again?

4 A. Again specifically no, but again, ten years ago
5 and the impact on my group was generally pretty small
6 with these things.

7 Q. Right. Let's go back. We don't have to pull
8 up the slide. We started off with the email exchange in
9 October of 2010 between you and Wayne Ciardella.
10 Remember in that there was the statement that the budget
11 was being cut 5 to 10 percent every year?

12 A. By Wayne, right.

13 Q. Right. Looks like the years leading up to San
14 Bruno that your budget was, at best, staying stagnant?

15 A. For these last couple years, that's what the
16 emails would indicate, but it doesn't have the numbers
17 right. I don't know what they actually spent.

18

19 (Grand Jury Exhibit 650 was marked for identification.)

20

21 Q. Now we're moving on to 650.

22 A. Do I have that? Here it is.

23 Q. Do you recognize 650?

24 A. Yes.

25 Q. Again, let's start at the end. It starts with
26 an email from Frank Maxwell. We're not going to spend

1 too much time on that, but suffice it to say, it's about
2 budget issues again; correct?

3 A. Yes.

4 Q. And then we go through a response from Chris
5 Warner. Again, budget stuff. This time --

6 A. Is this the same one, same exhibit?

7 Q. Should be. 650?

8 A. Okay. I missed -- so early on Chris had
9 something. Okay. All right.

10 Q. So you get involved in this conversation in the
11 middle on page 3 with an email from Janet Volkar. Now,
12 who is Janet Volkar?

13 A. She was an engineer that worked for me.

14 Q. Can you turn to that page and read us what
15 Janet Volkar sent to you.

16 A. "Out of the EO9 segments, a total of 283
17 segments are high risk, 149 are first assessment, and 134
18 are second assessment. These segments are included in
19 the 21 NSEGs scheduled to be completed this year, which
20 includes the NSEGs listed below."

21 Q. Can you explain to us the meaning of that.

22 A. Out of the EO9 segments, those are the segments
23 scheduled for DA in 2009. And we break up the pipeline
24 into segments that are based on common properties along
25 that particular segment. They have the same HCA ID, same
26 diameter, all the same pipe properties. So there's 283

1 of these segments. And the segments can vary from a foot
2 to a mile long. They're not of any determined length.
3 They just go as long as the properties stay the same.

4 Q. These are all segments that are scheduled for
5 inspection in 2009?

6 A. That's what it says. Right.

7 Q. And these are high risk?

8 A. Correct.

9 Q. What does it mean to be high risk?

10 A. I think we talked about it before. It's a, it
11 refers to a section of the, of Subpart O that talks about
12 doing high-risk segments in the first half of the program
13 from 2002 to 2007. But it's left to each operator to
14 determine what a high-risk segment is.

15 We did our risk analysis as required by the
16 code every year. And each year, because we would add
17 HCAs and subtract HCAs, we might get new high-risk
18 segments. So it wouldn't have been a high-risk segment
19 in 2002, but it might have been a high-risk segment in
20 2005. In that case, we would have five years to assess
21 it. If it had been originally identified as an HCA in
22 2005, if it's one of those, means we really need to get
23 it done by 2010. If it had been a high-risk segment in
24 2006, we have until 2011, et cetera.

25 Q. So read us your response to Ms. Volkar.

26 A. "Thanks, Janet. I probably should have been

1 more specific. We are looking at having to defer some
2 assessments this year in order to meet budget. Which of
3 the NSEGs have high-risk segments. Thanks."

4 Q. So you're not doing inspections, you're
5 deferring some of your inspections because of budget
6 issues in there?

7 A. That's what I'm telling her, yes.

8 Q. Okay.

9 A. We're planning on it. We haven't done it yet,
10 but that's what we're planning to do. And I'm asking her
11 -- she had given me a list of -- out of all the different
12 assessments we had planned, 283 of them were high risk,
13 and I want to know which of the specific segments, which
14 of the specific assessments for DA have high-risk
15 segments.

16 Q. All right. So she sends you a list of NSEGs
17 with high-risk segments scheduled for EO9. And then you
18 respond to her May 27th, 2009, 4:34 p.m.?

19 A. I respond, I sent this to Kevin actually, not
20 to her.

21 Q. Oh, I'm sorry.

22 A. Kevin would have been -- the reason I'm writing
23 to him, presumably, is because he would have been in
24 charge of the DA group at this point. Want me to read
25 what I wrote?

26 Q. Yes, please.

1 A. I don't know if it makes sense in English
2 looking at it now.

3 "Given the list I have is all high risk, if we
4 have to defer, we can defer any that are not
5 reassessments. Let me know which NSEGs are most
6 convenient to reassess. Thanks, Bill."

7 Q. So basically all of these are high-risk
8 segments; correct?

9 A. Yeah. "We can defer any that are not
10 reassessments."

11 Q. Why can't you defer reassessments?

12 A. Okay. The reassessments, they would have been
13 scheduled for -- so the first assessment, the baseline
14 assessment that started in 2002, we had that flexibility
15 to reschedule segments, provided they all get done by
16 2012. Even the high-risk segments can be done later in
17 the program. The rule only says you need to start with
18 the high-risk segments, but PG&E's goal, and one that we
19 met after the first half of the program, was to get them
20 all done in the first half. But once you've assessed it
21 once, the longest reassessment interview you have on a
22 prescriptive reassessment program is seven years. And so
23 they would have been scheduled for the seventh year. And
24 this is saying that seventh year is up, coming up, and,
25 therefore, can't be deferred and still be in compliance.

26 Q. So the ones that are being deferred are the

1 ones that have never been assessed in the first place?

2 A. Correct. They might have been identified
3 recently. But once you identify a new segment, normally
4 you have ten years to assess it from whenever you
5 identify it.

6 Q. How do you identify a new segment?

7 A. Each year we would get new parcel data, which
8 we would overlay on our HCA pipelines. And we would look
9 at that parcel data with new aerial photography and
10 identify any new HCAs within our system. And if we had
11 new HCAs, then we have new segments.

12 Q. Okay. So segments can become HCAs?

13 A. Correct. About -- at the time that we were
14 doing this, out of about 5,700 miles of transmission
15 line, maybe 950 were HCAs.

16 Q. Okay. Now, moving up, Kevin Armato responds.
17 If you can read that.

18 A. "Bill, per our discussion last week, we will
19 have to start cutting the budget by delaying the NSEG 105
20 survey. This should save us about \$600,000.

21 Frank, can you fund us this in 2010? Also, as
22 we continue to defer other NSEGs this year, I will need
23 funding for them in 2010."

24 Q. What is NSEG 105?

25 A. So 105 refers to the pipeline number. PG&E's
26 pipelines all have unique numbers. The -- generally it's

1 the biggest lines, but not always, have a three- or
2 two-digit number. And that's a whole scheme. It goes by
3 number. In any event, it's a Gas Transmission line
4 number.

5 And NSEG has to do with how the DA team has
6 defined an area for survey based on a whole bunch of
7 criteria they have for how lines are DA'd, the soil types
8 and a bunch of other things.

9 So this is the, so NSEG 105 is referring to the
10 105 line that Janet listed when she sent me the email on
11 May 27th.

12 Q. All right. Next, there's a response to Kevin
13 Armato from Frank Maxwell. If you can read that for us.

14 A. "Kevin, I will support a dollar-for-dollar
15 increase in 2010 budget request for any 2009 deferrals.
16 That said, the preliminary 2010 budget is expected to be
17 equal to the 2009 budget, which will leave us extremely
18 short of Gas Transmission expense funds. So for 2010, we
19 will need to find offsets within the program whenever
20 possible. I will work with you and the team to find ways
21 to fund all IM work that absolutely must be done in 2015,
22 but you, Bill, and Frank need to work to reduce costs."

23 Q. Okay. That's good. So now we're going into
24 2010. More budget problems in 2010; right?

25 A. Budget remains flat, right.

26 Q. So essentially the only inspection work you're

1 doing is the bare-minimum that's being required by the,
2 by the Pipeline Safety Act and the Integrity Management,
3 Pipeline Integrity Acts; is that correct?

4 A. For DA work, that's, looks like that's true.
5 The ILI stuff isn't mentioned in here yet. At least I
6 haven't read anything about ILI, so --

7
8 (Grand Jury Exhibit 651 was marked for identification.)
9

10 Q. So let's go on to 651.

11 A. Okay.

12 Q. Do you recognize 651?

13 A. The bottom half, I think we looked at it
14 before; the top half, no.

15 Q. This is in the 2010 budget. It's an email to
16 you from Bob Fassett wanting to know about --

17 A. It's an email from Bob Fassett to Glen Carter.

18 Q. The original one looks like it says from Bob
19 Fassett to Manegold, William.

20 A. I'm looking at this one here. Am I in the
21 wrong spot?

22 Q. Should be 651.

23 A. I'm on 651. I'm at the --

24 Q. You're right. I'm sorry, I was on the wrong
25 page. You're right. The original one was Frank Maxwell
26 to Les Buchner. And then that's followed up with the

1 Fasset email to --

2 A. Yes.

3 Q. -- yourself and Dauby?

4 A. Yes.

5 Q. And you're looking at substituting DAs for ILIs
6 because of budget cuts?

7 A. I think that's what Bob had been proposing,
8 right. That's what it looks like.

9 Q. And then there's a response here from you from
10 June 22nd.

11 A. Right.

12 Q. If you can read us your response?

13 A. "Bob, our current assessment plan is based on
14 our current assessment criteria, which we have been
15 working to revise."

16 We read this before; right? I think.

17 Q. Yep.

18 A. "The current criteria does not really address
19 reassessments. So if it was ILI'd the first time, it
20 will be ILI'd the second, et cetera. The effort Kevin
21 has been leading will address that issue. Kevin is
22 planning one last get-together to review the assessment
23 selection criteria, and we have come up -- we have come
24 up with prior to presenting you, prior to presenting you
25 our results for comment. Currently, that criteria will
26 still probably lead to most of the first-time assessments

1 for these lines remaining ILI. To pick another method,
2 as you know, we'll need to be able to say that other
3 method is the best method for assessing the threats to
4 the line that require assessment."

5 Q. All right. So then there's the alternate email
6 chain that takes off from there; correct? And this is --

7 A. Looks like it.

8 Q. -- to Glen Carter. Can you read us that.

9 A. "Glen, I'm still working on it, but the
10 following email from Bill provides a breakout of the pig
11 runs for 2010 through 2012 and shows the breakout of HCA
12 miles to total miles. On some of the lines where the HCA
13 miles is a small portion of the total miles, I've asked
14 that the team look closer into why we have to ILI over
15 DA. I hope to have something by the end of this week, if
16 not early next week."

17 Q. So who is Glen Carter?

18 A. Bob's boss. The head of our engineering
19 department.

20 Q. So Bob is specifically saying, he's telling,
21 he's asking you to look at doing ILL instead of DA;
22 correct?

23 A. For where the HCA miles is a small portion of
24 the total. He's asking us to look at why we would ILI
25 over DA. And I think, I assume he's referring to the
26 assessment criteria we've been developing.

1 Q. Okay. And this is in reference to the budget?

2 A. Bob's note to Glen, that's what it appears to
3 be.

4
5 (Grand Jury Exhibit 652 was marked for identification.)
6

7 Q. All right. Let's move on to 652. Ask you if
8 you recognize 652.

9 A. No. Doesn't look like I was copied on this.

10 Q. Okay. Well, let's go over some of the
11 information on here.

12 A. All right. Do you want me to read it from the
13 beginning?

14 Q. Sure. You can go ahead.

15 A. Out loud or --

16 Q. No.

17 A. -- to myself? Okay.

18 Q. All right. So, first off, an email from Frank
19 Maxwell to Greg Kiraly and Robert Howard?

20 A. Yes.

21 Q. Do you know who those people are?

22 A. I don't know Gregory Kiraly. Bob Howard was
23 the vice-president of Gas Engineering Operations, I
24 believe.

25 Q. CC'd to various people that include Robert
26 Fassett, who was your boss?

1 A. At this time I think Sara was my boss.
2 Q. Okay.
3 A. But yeah.
4 Q. Sara Burke is on this chain?
5 A. He was, he was in my line of supervision.
6 Q. So Sara Burke would have been your direct boss
7 at this time, and Robert Fassett would have been her
8 direct boss?
9 A. Yeah, I think she joined in like September or
10 October time frame or something like that.
11 Q. Okay. So, according to this, the 2010 budget
12 for GT expense, first draft is \$89.8 million; correct?
13 A. That's what it says, yes.
14 Q. Now, going back to the '80 -- to the '08 and
15 '09 budgets, those were 92- and \$93 million?
16 A. Those were the budgets. I don't know what was
17 spent, but that's what it said was the budget.
18 Q. So in 2010 now your budget has gone down about
19 \$4 million?
20 A. About 5 percent, right.
21 Q. Yep. And then go up, and the next is from
22 Mr. Fassett to Mr. Maxwell. If you can read that for us,
23 please.
24 A. "Frank, where did you come up with a \$4 million
25 reduction in IM? In the meeting the other day, I
26 committed to a \$900 reduction. Bob."

1 Q. So IM, that's Integrity Management; correct?
2 A. That's what I believe he's talking about, yes.
3 Q. That's your division?
4 A. Yep.
5 Q. Is looking at a \$4 million budget reduction for
6 the year 2010?
7 A. That's what Frank is proposing in October,
8 correct.
9 Q. Okay. So what are you having to do in 2010 to
10 cover for a \$4 million budget deficit -- or reduction?
11 Sorry.
12 A. I don't know. I mean, I didn't see this, so I
13 don't know.
14 Q. Okay. But you were working it; correct?
15 A. Working? I was working in IM.
16 Q. Integrity Management?
17 A. Yeah. Yeah, but I wasn't -- the only budget I
18 was responsible for was my own.
19 Q. Okay.
20 A. And that didn't see much of a reduction.
21
22 (Grand Jury Exhibit 653 was marked for identification.)
23
24 Q. Move on to 653. Do you recognize 653?
25 A. Yes.
26 Q. We had talked earlier, you had brought up seam

1 weld leak failure investigation, and specifically one in
2 '05.

3 A. Correct.

4 Q. Is this 29-page document in reference to that
5 incident?

6 A. 2007? 2008. Once the leak happened, it took
7 us quite a while to get the clearance and cut it out and
8 everything else. I think it is. I believe it is.

9 Q. Okay. Who is Dave?

10 A. I don't remember another leak on 153.

11 Q. Who is David Aguiar?

12 A. David Aguiar was a metallurgist, a corrosion
13 specialist, within the IM group. He worked for -- at
14 this time I think he worked for Bob.

15 Q. Okay. So can you read us the first paragraph.

16 A. Might have worked for Kevin.

17 "All, the cause of the subject leak was not
18 corrosion, but was related to the pipe fabrication
19 process. Specifically, the leak was caused by weld metal
20 solidification problems and porosity that was created
21 during the seam welding process. That leaked only after
22 approximately 56 years of service. Since we did not find
23 any evidence of service-related progression of any kind,
24 we speculate that the porosity was sealed all those years
25 with high temperature oxide, which eventually cracked and
26 was blown out by line pressure. Since internal or

1 external corrosion was not a factor in the leak, the
2 effectiveness of the year 2005 ECDA inspection is not an
3 issue. More details gleaned from the Anamet failure
4 investigation and my interpretation of it follow."

5 Q. Okay. So, first of all, is it safe to say this
6 is a manufacturing threat?

7 A. By the code, no, it's not.

8 Q. Why not?

9 A. The code B31, references B31.8S criteria for
10 defining manufacturing threats, and it specifically
11 identifies certain types of seam welds as having that
12 threat. And the kind that the seam weld -- and the
13 reason that they're identified is because those kind of
14 seams tend to, when they fail, can open up and cause a
15 rupture. Other kinds of welds don't or are -- don't
16 generally, and they're not required to be treated that
17 way. It doesn't mean that an operator can't treat it
18 that way, but it's not required.

19 Q. Okay. What is a 2005 ECDA inspection?

20 A. So this was one of the early ECD inspections
21 that we did. And it was an assessment of the pipeline
22 for a time-dependent threat of external corrosion. And I
23 think I mentioned before that one of the reasons that we
24 were particularly interested in leaks in HCAs, especially
25 if it had been on an area that had already been assessed
26 was, it went to the heart of our program's effectiveness,

1 if something leaked after we inspected it. So it drew
2 extra attention.

3 And Dave is addressing the fact that, because
4 it was probably something I was beating him over the head
5 about, was that the ECDA problem wasn't, program wasn't
6 at fault for not finding this leak before it happened.
7 It's nothing that ECDA would find.

8 Q. So this leak wasn't found during a direct
9 assessment?

10 A. Well, the leak hadn't happened yet. But the
11 flaw wasn't found, that's correct.

12 Q. When did the leak happen?

13 A. Well, I don't know. Is there a leak form in
14 here? It says, it acknowledges the root cause leak was
15 detected after the 2005 survey through the area. So I
16 don't know exactly when the leak happened. It may say in
17 here someplace.

18 Q. It says, "Further investigation --"

19 A. Probably 2005 or '6 something like that.

20 Q. "Further investigation showed the leak may have
21 been present prior to 2005"?

22 A. Where does it say that?

23 Q. Second star, right here. "The leak was
24 detected after the 2005 ECDA survey through the area.
25 Further investigation showed the leak may have been
26 present prior to 2005."

1 A. Okay. It does say that. It may have been such
2 a small leak that they couldn't detect it --

3 Q. So --

4 A. -- when they went by.

5 Q. They did an inspection and they missed it,
6 potentially?

7 A. Well, not -- the ECDA group doesn't, doesn't
8 have the tools to look for leak survey to leaks. They
9 may -- I'm not familiar enough with the ECDA process to
10 know if they schedule a leak survey or not, but it's
11 different set of tools. They use a flame pack, which
12 goes over the pipeline and has a bunch of -- it ionizes
13 -- it burns any kind of gas that it collects, along with
14 the hydrogen in the detector. And any increase in the
15 flame tells it, hey, there's a leak here. But that's a
16 totally different set of tools than the DA tool. DAs are
17 just looking for corrosion.

18 Q. Okay. The DA in this case was not designed to
19 be looking for things like leaks?

20 A. Right. We have a separate program for that.
21 Transmission lines are inspected every year, and some are
22 inspected semi-annually for, there's a leak survey done.
23 But if it's a really small leak, even with the flame pack
24 that we do, it's, at that time -- I mean, there are more
25 sensitive tools today than there were in 2005. It's
26 possible that a small leak could evade detection.

1 Q. All right. Can you read us the next star down,
2 starting with "The leak."

3 A. "The leak was caused by a seam weld
4 solidification defect. The defect was created at high
5 temperature during welding, wherein a void was created
6 between the solidifying front from both sides of the weld
7 toes. It appears that inadequate feeding of molten metal
8 into the centerline of the weld combined with porosity
9 formation was the problem. The solidification and
10 porosity problem during welding is related to the filler
11 metal/flux selection and the essential welding
12 variabilities, most notably heat input. This is as
13 opposed to hot cracking that is caused by segregation.
14 The other 13 defects found in the 39 inches of seam
15 examined by radiography are of identical origin. These
16 defects do not represent a rupture concern, as
17 demonstrated they are a leak-before-rupture concern
18 only."

19 Q. So 39 inches of the pipe -- or the seam were
20 examined?

21 A. As part of the cylinder that we cut out, right.

22 Q. Thirteen other defects in that 39 inches?

23 A. That's what it says.

24 Q. That means 14 total defects in 39 inches?

25 A. Right. Teeny little pieces of oxide in there.

26 Right.

1 Q. Okay. But those are defects that the --
2 A. Correct.
3 Q. Leaks?
4 A. Could.
5 Q. Okay.
6 A. In 50 years it led to one.
7 Q. All right.
8 A. Or whatever the number of years was he said.
9 Fifty-six years.
10 Q. So after you find a leak like this -- and, by
11 the way, we talked earlier about, and how this came up,
12 we were talking about your budget for leak research, leak
13 investigation; correct?
14 A. Correct.
15 Q. This is what we're talking about; right?
16 A. This is the leak that generated a lot of the
17 subsequent budget estimates, because it was very
18 expensive to dig this thing out.
19 Q. Right. You dug that out, you can out that
20 piece of pipe or had it done?
21 A. We cut it out. Anamet did the analysis. Dave
22 did the review, and he worked with Anamet on it.
23 Q. He did a root cause analysis report?
24 A. Right.
25 Q. Which is included in the exhibit?
26 A. Right.

1 Q. Sent it off for forensic work at Anamet lab?

2 A. I told you before that they didn't require that
3 we -- this kind of a defect wouldn't have required a, us
4 to do a seam weld assessment. And that's normally true.
5 But if Dave had come back and said, talking about those
6 failure curves about leak before rupture, if he had said
7 this was rupture-before-leak threat, even if it hadn't
8 done it this time, we would have probably looked at doing
9 something different.

10 Q. Okay. Okay. So after an incident like this,
11 what do you do to ensure that there's no other pipe out
12 there like this?

13 A. There probably is, but -- so we accept the fact
14 that once every 56 years we may have a small leak that we
15 have to repair.

16 Q. Well, I'm guessing that this probably wasn't
17 the only pipe that was installed in 19 -- or 56 years
18 ago; correct?

19 A. 153 I think goes -- I can't remember what the
20 name of the station, something like Fairview Crossover in
21 Hayward, goes from Fairview Crossover up to Romana
22 (phonetic) Station. So, I don't know, 15, 20 miles,
23 something like that, of pipe. And that would -- most of
24 it would have all been installed at the same time.

25 Q. Okay. Probably there were other gas
26 transmission line installments that same year in other

1 parts of the state; right?

2 A. It wouldn't surprise me. I don't know if they
3 would have used this size of pipe, but we would have put
4 in other pipe in 1949.

5 Q. Well, when you have a leak like this, what do
6 you do to ensure that you don't have other situations
7 just like this in other parts of the system?

8 A. For something like this, we wouldn't. The code
9 says that certain kinds of leaks that are nonhazardous,
10 inherently nonhazardous like this one is, you fix them
11 when they fail. And -- now, and we weren't getting a lot
12 of leaks in the system, like I said, maybe 10, 12 a year,
13 so it wasn't much of a concern. It was a concern until
14 we got the report. And even after the report, I was
15 concerned some, but -- so if -- some of what I tell you
16 is based on -- it's kind of hard to put myself back in
17 that time and say this is what I thought then. Part of
18 what I tell you is based on everything that I've learned
19 since then. And it's hard to distinguish those two. But
20 I know Dave was pretty emphatic that it wasn't that big a
21 deal. And I'm looking back at that time, he was right.
22 I think.

23 Q. So this is a leak in a pipe on Alameda Avenue
24 in the city of Oakland; correct?

25 A. Right.

26 Q. This is definitely a high consequence area?

1 A. Given the size of the pipe, it's a low, it's a
2 relatively low pressure line. Part of this line, I
3 believe, operated less than 20 percent SMYS, which is one
4 of those criteria that's used to define a transmission
5 line. But if it's not below 20, it's very close to it.
6 But yes, I'm sure it's a high consequence area. Not all
7 of the pipeline is, but this particular section, if I
8 remember correctly, was.

9 Q. Okay. So you find this, you do all this
10 analysis of this pipe, you figure out what the problem is
11 that basically it's bad seam welds; correct?

12 A. It's seam welds with defects. I wouldn't call
13 it bad.

14 Q. And 14 defects in 39 inches of the section of
15 pipe?

16 A. Very tiny defects, right.

17 Q. Do you go out and inspect the rest of the pipe
18 to see if it's the same as this 39-inch section that
19 you've pulled out?

20 A. No.

21 Q. Do you look for other similar pipe in the
22 system to go out and inspect?

23 A. No. I don't know how you could inspect for it.
24 An ILI probably wouldn't pick it up; it would be too
25 small. It might even be too small for a pressure test.
26 Because this was older and hadn't been pressure tested,

1 after San Bruno we did pressure test this line. And my
2 recollection, and I could be wrong, but my recollection
3 is that, that the, that the, after they tested it they
4 found no leaks, and a month later after they had tested
5 it they said they had found a leak. And to me -- they
6 said they would have been able to detect that leak at
7 that time. And I -- my own belief is that if it passed
8 the hydro test, probably wouldn't leak after that. So it
9 means that with the hydro test it was probably leaking,
10 but the rate was just so small they couldn't see it.

11 Q. All right. Good segue into our next topic,
12 which is your policy for nonhazardous leaks. If you can
13 start off by defining for us what is a nonhazardous leak.

14 A. It's a leak that's -- again, there's a more
15 formal definition in the leak survey guides, but from
16 speaking from memory, it's a leak that's, that's
17 nonhazardous and it's expected to remain so until the
18 next leak survey.

19 Q. Okay.

20 A. We graded leaks 1, 2, or 3. Grade 3 is that
21 nonhazardous. Actually, a grade 2 leak is one that
22 requires action, but doesn't require immediate action.
23 And a grade 1 is a leak that requires immediate and
24 continuous action until it is no longer a grade 1 leak.

25 And that doesn't necessarily mean it's fixed.
26 It could mean, for instance, that it's a leak that it's

1 -- one of the reasons that it's happening is because the
2 gas could migrate to a building and could cause a gas
3 buildup. And by just opening up the pipeline around the
4 leak, it can vent to the atmosphere, vent safely to the
5 atmosphere, and, therefore, it can be downgraded to a
6 grade 2.

7 Q. Prior to 2008, what was the policy for dealing
8 with nonhazardous leaks?

9 A. We're talking about the email?

10 Q. I'm not talking about an email yet. It's not
11 related to an email.

12 A. Okay. So we had -- so, again, if it was a
13 grade 3 leak, nonhazardous, we would, we wouldn't do
14 anything with it, we'd just look for it the next time
15 that we did a leak survey in the area. And the leak
16 survey frequency varied depending on the kind of pipe it
17 was and the location it was at. There were different
18 rules for leak surveys between Distribution and
19 Transmission.

20 Distribution lines generally were on a
21 five-year survey schedule. But in business districts,
22 areas where there was, it was wall-to-wall paving, where
23 if you did have a leak, the leak couldn't vent out
24 through the paving, or out to the atmosphere like might
25 if it was a side building, those would be done more
26 frequently. I don't remember what the frequencies are

1 anymore.

2 Then on transmission lines, I believe it was
3 annual, and I think some of them were semi-annual. But,
4 again, the leak survey guide has that information, and I
5 just -- it's been too long, I just don't remember.

6 Q. So you didn't fix the leaks?

7 A. For grade 3 that were nonhazardous, no, we did
8 not --

9 Q. At some --

10 A. -- before 2005.

11 Q. Okay. At some point did that policy change?

12 A. For transmission lines, yes, it did.

13 Q. Why?

14 A. In 2005, we were -- the System Integrity
15 Program was audited by the CPUC with the assistance of
16 PHMSA. And the lead PHMSA inspector, Jeff Guillen, who
17 was there as an adviser but in reality acted as the lead,
18 told us -- when he asked us to explain our policy, we
19 did, I think probably Chris did the explanation, and he
20 said, "No, no, no, that's no good. You can't do that.
21 If you have a leak in an HCA, you need to fix it. So we
22 changed our policy for gas transmission lines in HCAs.

23 So we went out and all the ones that were open,
24 what are called "open" leaks, meaning they're out there,
25 we have paperwork on them, we know where they are, we
26 haven't fixed them, all the ones identified for HCAs, we

1 went out and fixed. And, of course, as it turned out, a
2 lot of them we thought they were on the transmission
3 line, but they were really on a distribution line that
4 was right next to them. But some of them were on the
5 transmission lines, and those were fixed. I think one or
6 two of them.

7 Q. Are you familiar with the accelerated leak
8 survey?

9 A. Not enough to talk intelligently about it.

10 Q. Just in general, can you tell us what it was?

11 A. I think, but I don't know, that there were,
12 that there were irregularities found in how some of the
13 leak surveys were done, and the accelerated leak survey
14 went back and, rather than wait the typical five years
15 that would have been allowed between these surveys,
16 accelerated the leak survey. But I'm sort of guessing.
17 I probably shouldn't answer that question.

18 Q. Was that an outgrowth of the PHMSA and CPUC
19 2005 investigation --

20 A. No.

21 Q. -- and the -- okay.

22 A. If it's the one that I'm thinking of, it was
23 based on what was found in, at a division level. The
24 PHMSA survey was of the Transmission and System Integrity
25 Programs.

26 Q. All right. So let's start historic leak

1 records. How important are historic leak records to your
2 risk assessment?

3 A. Well, I don't know if we read it or not, but
4 there are I think around, I think I did read it, that
5 there's something around 40 different factors used for
6 assessing the risk on a pipeline, that we used, relative
7 risk assessment, that we used to figure out is this a
8 high or low risk item. Any one of them doesn't change
9 the number very much. So as far as changing the risk
10 assessment, it didn't have a very big effect one way or
11 the other, but it's, better information is better.

12 Q. How about the threat assessment?

13 A. More important. It made a difference on the
14 manufacturing threat.

15 Q. So if you haven't identified a leak, especially
16 a seam weld leak, more and more stuff kicks in; correct?
17 More requirements?

18 A. Yeah. In fact, so part of the assessment
19 process, the DA process, is to go back and do a much more
20 in-depth look for things like leak survey records and
21 what exists in GIS. And it was such a survey, for
22 instance, for DA on line 21E up in here in Santa Rosa,
23 that found a record of a seam weld leak that caused us to
24 flip the planned assessment method from DA to ILI. So
25 those records are very important.

26

1 (Grand Jury Exhibit 654 was marked for identification.)

2

3 Q. All right. So let's look at Exhibit 654.

4 A. Okay.

5 Q. See if you recognize 654.

6 A. Okay.

7 Q. All right. So this is a series of emails in
8 January of 2009 regarding leak data; correct?

9 A. Correct.

10 Q. Eventually you get included into this email
11 chain?

12 A. Right.

13 Q. All right. So let's start at the beginning
14 again. Who is John D. Hunter?

15 A. John Hunter is a graduate of the Washington
16 State University, and he is, was the gas engineer out in
17 area 5.

18 Q. How about Matthew Pender?

19 A. Matt was the Gas Distribution expense manager
20 at this time, I believe.

21 Q. David Baker?

22 A. David Baker worked for me. And his title was
23 on one of those O charts we looked at earlier. I don't
24 remember what his title is, but Dave supported software
25 applications primarily aimed at folks doing distribution
26 work.

1 Q. So the email chain starts off with John Hunter
2 asking how far back does our leak data go; correct?

3 A. Yes.

4 Q. And if you can take it from there with the
5 response from David Baker.

6 A. "John, there was data migrated into IGIS from
7 the old PC leaks program when IGIS started up back in
8 1999. I've run queries to pull data back as far as
9 1985."

10 Q. Is IGIS the same as GIS?

11 A. No.

12 Q. What is IGIS?

13 A. Integrated Gas Information Systems, I believe.

14 Q. And what is that?

15 A. It was, I think, the mainframe program that we
16 used to track leaks system-wide. I think so.

17 Q. So next somebody named Dennis Marenberg jumps
18 into the conversation?

19 A. Yes.

20 Q. Do you know who Dennis Marenberg is?

21 A. I did. Yeah.

22 Q. Who is Dennis Marenberg?

23 A. He worked in our IT group, or Information
24 Technology, group, but he was, even though he was in the
25 Information Technology group, he was very knowledgeable
26 about -- well, he'd helped develop a lot of the leak

1 system computer software that we had, and he was familiar
2 with the history of the system.

3 Q. All right. So read to us his email.

4 A. "Folks, a fuller explanation of John's question
5 follows. In 1999 gas leak data existed in two locations,
6 our mainframe system and our local PC systems. The
7 mainframe gas leak system contained historical gas leak
8 data dating back to the beginning of our gas leak
9 application in the 1970s. The PC gas leak systems
10 contained data dating back to the beginning of the PC gas
11 leak system about 1987. Although, the PC gas leak system
12 tracked a few more fields than the mainframe system did,
13 the mainframe system was uploaded with the data from the
14 local PC gas leak systems on a monthly basis and thus
15 contained pretty much the same data as the PC gas leak
16 systems did, except for all of the pre-1987 historical
17 leak data.

18 When we cut over to using IGIS in 1999, we used
19 the PC gas leak system as our data source and imported
20 all of the active data in these systems into IGIS.
21 Active data was all of the data for active leaks as well
22 as data for inactive leaks that had not been archived.
23 The PC leaks system gave users the options of archiving
24 all data for inactive leaks, but different locations used
25 this function to different degrees. Since each location
26 used the archiving function differently, some not at all

1 and some as often as annually, how far back our IGIS data
2 goes depends on the location of the data.

3 We have determined the IGIS has all historic
4 leak data back to the beginning of 1997, but starts to
5 lose data from some locations as you go back further in
6 time.

7 Meanwhile, we copied the 1999 mainframe leak
8 data to an MS, Microsoft, Access database and still have
9 the ability to extract data from the database and thus
10 have access to just about all historic leak data.
11 However, in extracting or querying data from this
12 database, we need to understand that the data set is much
13 smaller than today's IGIS database, that the validity
14 rules changed quite a bit since the first gas leak
15 application, and that querying this data is more
16 difficult and time-consuming than with IGIS, and thus we
17 need to carefully consider the cost and benefits before
18 we start dealing with this database.

19 Any questions, please let me know. Dennis."

20 Q. Okay. Okay. The response from John Hunter?

21 A. "Thanks, Dennis. I think we can all understand
22 why this question comes up now. In my case, I have three
23 incidents that folks are asking me what the leak history
24 is on the pipe. When I look at IGIS, I have nothing
25 showing up. The piping in one case in early 1970, early
26 '70s vintage, so from Dennis' summary, I can assume that

1 I don't have all the info just by running an IGIS leak
2 history report. With that in mind, do you have any
3 suggestions for situations where we need to do a complete
4 review of the leak history?

5 Really appreciate your help."

6 Q. And finally, the response from David Baker.

7 A. "John, could you provide Dennis and myself with
8 a map, plat, and block of each of the three incidents?
9 This will be needed for a leak history query of the
10 pre-1999 leak data, which is contained within an archive
11 Access date database. Dave."

12 Q. Sounds to me, reading this email chain, that
13 pre-1999 leak data is pretty difficult to get to, hard to
14 find, takes a lot of work, and incomplete; is that true?

15 A. For distribution leaks, I think that's sort of
16 what this is saying.

17 Q. Distribution, where does it say distribution as
18 opposed to transmission?

19 A. It doesn't, and I'm not sure that that's the
20 case. But John Hunter is the local gas engineer, he's
21 not a pipeline engineer. And David supported the
22 division, and Dennis Marenberg mostly worked on those
23 issues.

24 Q. Okay.

25 A. So it could be some transmission, I just, I
26 don't know. But I'm guessing it's distribution. But I

1 don't know that.

2 Q. All right. So let's move on and talk about the
3 GIS system itself.

4 A. Okay. GIS?

5 Q. Yes.

6 A. Okay.

7 Q. So what's the importance in GIS in risk
8 assessment and calculation?

9 A. Well, given the method that we used to, the
10 method that we selected, relative risk assessments, for
11 prioritizing work in GIS, it is, it's critical. We have
12 to have the information in GIS in order to identify all
13 the pipeline segments that we're going to assess and
14 whether we're going to range them as a high or low risk.

15 We could have done risk analysis another way,
16 but we didn't. And given the way that we did it, we had
17 to, which was the probabilistic method, we needed -- a
18 relativistic method, we needed to have, we needed to have
19 information in GIS.

20 Q. So did you rely upon GIS for historical leak
21 records like we just talked about?

22 A. Yes.

23 Q. And you relied upon GIS for -- all of a sudden
24 I forgot the word for it, but the specific, specifics as
25 to pipes or pipelines?

26 A. Attributes.

1 Q. Attributes. That's the word I was looking for.

2 A. For the risk assessment, yes. And for the

3 threat assessment, initial threat assessment, yes.

4 Q. You also, there was also a lot of assumed

5 values in GIS; correct?

6 A. Correct.

7 Q. And could you briefly for us define what is the

8 proven margin of safety?

9 A. No, I don't know what, I don't know what you

10 mean.

11 Q. Okay. You don't know what proven margin of

12 safety is?

13 A. I don't know what you mean by it.

14 Q. What's a margin of safety, to start with?

15 A. It would be, I think what you're asking me is

16 the, a margin of safety would be the difference between

17 what something is operating at and what would cause it to

18 fail.

19 Q. Okay.

20 A. The difference between those two things would

21 be the margin of safety.

22 Q. Okay. And is there any such thing as a proven

23 margin of safety?

24 A. If you pressure test the line, yes.

25 Q. Okay. So if you're dealing with assumed

26 values, do you have a proven margin of safety?

1 A. If it had been pressure tested, you could, yes.

2 Q. Okay. But if it's pressure tested, then you

3 definitely have a proven margin of safety?

4 A. Correct.

5 Q. Let's assume it hasn't been pressure tested,

6 you're dealing with assumed values, do you have a proven

7 margin of safety?

8 A. No.

9 Q. If you're dealing with assumed values and you

10 don't have a test to prove what the margin of safety is,

11 then you'd be dealing --

12 A. Wait. I'm sorry. Can you re-ask that? I may

13 have answered that incorrectly. Could you re-ask that

14 last question, the one that I answered no to about

15 assumes?

16 Q. If you have assumed values --

17 A. Yes.

18 Q. -- and you have to pressure test, you're not

19 dealing with a proven margin of safety; correct?

20 A. Without a pressure test, you have no proven

21 margin of safety whether you have assumed values or not.

22 Q. Okay. What about if you know all of the values

23 of the attributes?

24 A. You still haven't proven it. That's why you

25 have the pressure test.

26 Q. Okay. All right. That was a long way to

1 explain it.

2 So when you're doing a risk assessment and
3 calculation on a gas transmission line, what's the effect
4 of having missing records and assumed values?

5 A. If the assumed values are not conservative, it
6 means for your risk assessment -- well, for risk
7 assessment, again, it's not that important for the
8 reasons that I specified before, which is that you're
9 just dividing things into these two boxes, high and low,
10 you're going to assess them all anyway, it's just a
11 matter of priorities. But if the information that you
12 have is wrong, and it's not conservative, it could mean
13 you're operating the pipeline at a much higher, at a
14 higher calculated specified strength than you think you
15 are. And you could be operating it in a way that's
16 unsafe. It's possible.

17 Q. Okay. All right. So let's talk about 2010,
18 CPUC audit. Do you remember that?

19 A. Yes.

20 Q. Before we get into it, what is a CPUC audit?

21 A. An audit is where the CPUC comes in and looks
22 at procedures and records for compliance with
23 requirements of the, of GO 112, the General Orders of the
24 state. Which for -- California incorporates the federal
25 standards, the 49 CFR 192, and it adds additional
26 requirements that the state has determined are important.

1 Q. Describe for us the process of a CPUC audit.

2 A. Depends on the kind of audit. There -- I've
3 been in a couple different kinds. But for the Integrity
4 Management Program, the CPUC comes in, they, they give us
5 -- first, maybe a couple weeks before the audit, they
6 will send us a list saying we want to see all these
7 documents, please send them to us prior to the audit.
8 And a lot of times that will be things like procedures,
9 that they can just review the procedures, be familiar
10 with what we have.

11 Then they'll come in and they have a series of
12 protocols, and those protocols are questions that they
13 ask to show compliance with each different part of
14 Subpart O of the System Integrity section of the code.
15 And, and they'll ask us to show in the procedures where
16 we meet that particular requirement.

17 And then they'll ask for the documentation that
18 shows that we followed our procedure. Generally, that's
19 what will happen. And they'll step through each -- the
20 protocols cover, you know, everything from HCA
21 identification to risk/threat analysis, including all the
22 different threats, to how we do all our ILI work, how we
23 do all our DA work, how our RTOA program works, all the
24 different elements that are required in Integrity
25 Management Program.

26 Q. So was Integrity Management involved in the

1 2010 CPUC audit?

2 A. Yes. There was -- the CPUC does a lot of
3 audits every year. There was an IM audit in addition to
4 a bunch of other audits they did in 2010 in Walnut Creek.

5 Q. Did you personally participate in the May 17th
6 -- May 18th I think through, what was it, the 22nd?

7 A. Typically, there are two-week audits that are
8 -- they usually come for a week, they gather a lot of
9 stuff up, they take it back to their office, and they
10 examine it. And then they come back out a week after
11 that, and then they -- there's another week of auditing,
12 then they take all that stuff back. And I did
13 participate in the audit that started in late May.

14 Q. Okay.

15 A. At least for the beginning of the audit. I
16 wasn't there for the whole thing, but I was there for
17 part of it.

18

19 (Grand Jury Exhibit 655 was marked for identification.)

20

21 Q. All right. So you have in front of you Exhibit
22 No. 655. See Exhibit 655?

23 A. Yes.

24 Q. Do you recognize Exhibit 655?

25 A. I do.

26 Q. What is Exhibit 655?

1 A. 655 is a markup of a memo that I wrote in
2 preparation for that audit.

3 Q. What do you mean a "markup"?

4 A. Well, it looks like it's been edited. I can
5 see there's lines drawn through things, and which I
6 wouldn't have done. So somebody's marked this up.

7 Q. Okay. So who would have marked up a memo that
8 you did?

9 A. Well, at the bottom it says Mears, dash DOJ, so
10 I'm assuming from Mears, so Mears did this.

11 Q. Who is Mears?

12 A. Mears was the corporation that we hired to do
13 DA work. But for the audit, we -- but we also had
14 individuals that were, that assisted us in different
15 parts of our business. Dan Curtis was a Mears employee.
16 He helped us with our risk analysis and HCA analysis each
17 year. And Chris Warner was a, I think at the time a
18 project manager. I don't know what his title was. But
19 he worked at Mears, and he previously had been the head
20 of the System Integrity Group.

21 And Sara Peralta, or Burke, I don't remember
22 which at this point, had invited Chris to -- or asked
23 Chris if he would be willing to help us prepare for this
24 audit. We knew about the audit at the end of 2009 that
25 in 2010 we'd be audited. Chris agreed that he would do
26 that for us. I mean, it wasn't a gift. He would do it

1 as part of a contract that Sara had, had prepared for.

2 So this could be comments that I had received
3 from Chris when I sent this note out for comment.

4 Q. Okay. It's about ten to 4:00. Do we want to
5 take a break before we get into the meat of this memo?

6 A. I would.

7 GRAND JURY FOREPERSON: Ten minutes.

8 (Break taken.)

9 GRAND JURY FOREPERSON: All members of the
10 Grand Jury are present, ready to proceed.

11 Q. (By MR. NOEL) I already forgot the exhibit
12 number.

13 A. 654.

14 Q. Mr. Manegold, you had indicated during the
15 break that you wanted to add something on 654?

16 A. Yeah. I just wanted to emphasize that while I
17 still think this is about distribution leaks, that your
18 underlying questions about the, its application to the
19 transmission system, it may have some, it may involve a
20 transmission system, I just don't remember. I think this
21 email is about the distribution system, but the program
22 could have been used by both sides. I just don't
23 remember.

24 Q. Okay. One of the things that we had pointed
25 out is, we talked earlier, you've testified at the
26 federal criminal trial on PG&E out of the San Bruno

1 explosion?

2 A. Yes, I did.

3 Q. And that is an exhibit that you testified to in
4 the federal criminal trial; correct?

5 A. As I said, if you tell me that's what it was, I
6 will believe you, but I just don't remember that.

7 Q. All right. So now we're getting back to this
8 memo. May 17th, 2010, memo regarding ERW seam threats.
9 Can you give us the background of why you wrote this
10 memo.

11 A. Yes. Sara Peralta had brought Chris Warner on
12 board to help us prepare for the audit. And as part of
13 that preparation, Chris had done a survey of all, of the
14 supervisors of the three work groups, ILA, DA, and my
15 group, to find what our concerns were about the upcoming
16 audit. And my primary concern -- I had a number of
17 different concerns, but probably the most important
18 concern, certainly by the time of the audit, my number
19 one concern was how we addressed manufacturing threats.

20 Specifically, the code requires that we not
21 exceed the five-year maximum operating pressure of any
22 pipe that had a seam manufacturing threat. If in 2002
23 the highest pressure on the line was 400 pounds, the,
24 then up to 2007 we could operate that line at 400 pounds.
25 But on 2008, if it hadn't sometime after 2002 seen a
26 pressure up to 400 pounds, it would be limited to -- if

1 we wanted to avoid activating a manufacturing threat, it
2 would be limited to the pressure of that maximum
3 five-year interval. And so it required operator to track
4 what those pressures were in order to know whether they
5 had exceeded that value.

6 And it seemed like a simple enough thing to do,
7 but in reality it turned out to be extremely difficult
8 and, in my opinion, ultimately impossible. And that's
9 because the pressure that's of interest is the pressure
10 of the segment that you have a concern about. So we'd
11 measure pressure at PG&E, and most operators do it,
12 regulator sets, because you want to make sure that the
13 regulator is working properly. You can remotely monitor
14 it and see that if it's supposed to make sure the
15 pressure doesn't go above 200 pounds that you're at that
16 200-pound limit. And we kept records like that.

17 But the pressure of interest for the System
18 Integrity Rule was the pressure of the segment of
19 interest. And downstream of that regulator, the pressure
20 is less, and it varies. And you don't know how much it
21 varies other than you know it never exceeds the pressure
22 at the regulator at the very beginning of the line. But
23 down the line, as there are homes served or other lines
24 branch off of it, there are pressure drops. And those
25 pressure drops vary from time of year to time of year.
26 They vary from day to day. They vary from morning until

1 night. And you don't have a pressure indicator to tell
2 you what they are.

3 The code says that you can't exceed that
4 five-year value. And the federal government wrote a
5 series of what they call "frequently asked questions,"
6 which provide guidance on their current thinking about
7 how the code is to be interpreted. If it says that
8 you're supposed to do Y, but they feel that there might
9 be some confusion about what doing Y means, they would
10 write an FAQ and explain, this is what we think it means.
11 They make it very clear that their interpretation is not
12 the same thing as a rule. It doesn't have the power of
13 the rule. And it only represents their current thinking.
14 They can change that at another time. But it represents
15 what they think right then.

16 And, generally, for an audit purpose, if you
17 follow their FAQs you'll probably be okay in any kind of
18 an audit they would do. Now, it doesn't mean that
19 you're, that every operator's always going to follow
20 that. And PG&E didn't -- in the first audit that we did
21 in 2005, there was a section, and I can't remember what
22 it was, but we told them that there is a -- they made a
23 point -- the PHMSA inspectors said, "You know this is in
24 disagreement with the FAQ."

25 And we had told them, "We understand that, but
26 we think that we're right about this." We never got a

1 audit report for 2005, so we don't know how they would
2 rule. We don't know what they'd, they had decided. But
3 at that same audit, I'd asked the PHMSA inspector, Jeff
4 Guillen, "When it says you can't exceed the five-year
5 MOP, how much allowance is allowed in that?"

6 He said, "None. The FAQ says, 'If you go over,
7 you go over.'".

8 At the time, that seemed to me to be pretty
9 clear about what we needed to do. But I hadn't looked at
10 the issue at the time, and I didn't realize what that
11 meant, which was that in order to know that we hadn't
12 gone over that pressure by any amount, we'd have to know
13 what that pressure was. And we didn't.

14 And so how we were going to monitor this threat
15 was a big concern for me going into the audit. And we
16 had looked at a bunch of different things. We had --
17 internally, we'd started to monitor -- probably around
18 2008, one of the guys that worked for me was assigned the
19 task of looking across the system at all the pressure
20 records we had. And we had different types. We had --
21 in addition to pressure transmitters, we also had
22 pen-style recorders, where it would measure the pressure
23 on like a 24-hour piece of paper.

24 Q. We're kind of getting into the weeds here.

25 A. Okay.

26 Q. You wrote this CPUC audit?

1 A. I did.

2 Q. This was written to justify --

3 A. Not to -- it was written to explain how we were
4 going to measure the, how we were going to determine when
5 a threat had been activated, a manufacturing threat had
6 been activated. That was solely the purpose of this.

7 Q. What happens if you exceed the maximum
8 operating pressure on a line with a recognized seam weld
9 failure, an established seam weld failure?

10 A. A seam weld threat, you don't have to have had
11 a failure. It's a stable failure -- stable threat until
12 you've had a failure or until you've exceeded that
13 five-year MOP. At that point, then you would have to
14 schedule an assessment of that pipeline as a high-risk
15 assessment.

16 Q. What type of assessment?

17 A. Typically, that would be a pressure test. I
18 believe it could still be a ILI, again, with the caveat
19 that I talked about before, that if, that if it's a large
20 enough flaw that will be produced that could be detected
21 by an ILI device and still not rupture. But most of the
22 time, it would probably -- well, it would be either an
23 ILI or a pressure test.

24 Q. Now, you wrote in the third paragraph,
25 "Currently PG&E uses a five-year rolling historical
26 maximum to define the MOP limits that define the

1 activation of the seam weld threat." What's a five-year
2 rolling historical maximum?

3 A. It means that -- there are two sections where
4 five years are mentioned in the code, but it goes back
5 to what I was describing before when I said that if in
6 2002 the maximum pressure was X, but then you didn't see
7 that pressure again for the next five years, if you
8 didn't, if it didn't get back up to X, you would be then
9 limited to the highest pressure in the proceeding five
10 years after that.

11 So if on December 31st it was at 200 pounds,
12 and five years plus one day after that the highest
13 pressure in that interval was 197 pounds instead of 200,
14 you would, if you wanted to avoid activating a
15 manufacturing threat, be limited to 197 pounds on that
16 line --

17 Q. Okay. Let's move on.

18 A. -- for that segment. For that segment.

19

20 (Grand Jury Exhibit 656 was marked for identification.)

21

22 Q. Let's move on to 656. Now, prior to presenting
23 this memo, or taking this memo to the CPUC audit, did you
24 seek peer review at that audit?

25 A. I did.

26 Q. And to whom did you send that memo? I mean, to

1 whom do you send that memo?

2 A. The names are listed at the bottom. Sara. I
3 sent it to Sara, I sent it to Calvin Lui, Thach Ha,
4 Chih-Hung Lee, Chris Warner, Dan Curtis, and Frank Dauby.

5 Q. Okay. When you say it's listed at the bottom,
6 you're referring to the bottom of 656?

7 A. 656, that's correct.

8 Q. And 656 is an email exchange with regard to the
9 memo between yourself and Frank Dauby?

10 A. Yes, it is.

11 Q. So how did Frank Dauby react to your memo?

12 A. He thought the memo was reasonable and
13 defendable.

14 Q. And read us your response to Mr. Dauby.

15 A. "That's what Custer told the lieutenant who
16 said, 'Let's stop here.'"

17 Q. What did you mean by that?

18 A. I think I thought Frank was wholly
19 underestimating the size of the problem. To me, as we
20 were getting into the weeds, I was trying to describe, to
21 me it's a very complicated problem. And the response
22 that I wrote in my memo was very simplified and
23 incomplete. It wasn't adequate.

24 Q. Okay. What happened to Custer after they
25 stopped there?

26 A. Well, at the Little Bighorn, he was killed.

1 Q. So did you expect on your memo that when you
2 went in front of CPUC audit that you were going get
3 killed?

4 A. That's what I testified at the trial.

5 Q. Not literally.

6 A. Figuratively. It was a very poor choice of
7 words that I said.

8 Q. CPUC does not employ capital punishment; right?

9 A. Well, given the case at the trial, it was also
10 especially a poor choice of words.

11 Q. I think the word you used in the federal trial
12 was "slaughtered."

13 A. I think I used both.

14 Q. Why did you feel you were going to be
15 slaughtered or killed by the CPUC on that memo?

16 A. Because, as I said, it's just a very
17 complicated issue, and it's -- I don't think that memo
18 addresses it. If I was the -- the PUC's job -- what the
19 memo that I wrote did was, in essence, it invited a
20 conversation with the PUC about what we would find
21 acceptable. But the PUC's job isn't to converse with us
22 about what we both think is the best way to do things.
23 Their job is to tell us what we're doing is either right
24 or wrong. And they may not know what to do either. As I
25 said, I think it's an impossible problem.

26 I think -- as it happens, I think the only

1 solution was to test all untested pipes. That's the only
2 way that you can really be sure that you're not going to
3 activate that threat. But I didn't realize that at the
4 time, I just knew this memo didn't do it. And I thought
5 that the lead auditor for the CPUC, Sunil Shori, was a
6 very sharp guy, and he wouldn't know what to do either,
7 but he'd know that the memo that I wrote was inadequate.

8 Q. So you say you believed that ultimately you had
9 to test the pipes?

10 A. After San Bruno I realized that.

11 Q. Okay.

12 A. Especially because of San Bruno. San Bruno
13 failed at a pressure where the regulator pressure was
14 lower than it had been before. But, as it turned out,
15 the pressure at the failure spot was the highest we'd
16 ever measured it at. So that whole idea of trying to
17 measure things at the regulator, which is what we were
18 trying to do to use as a proxy for measuring the pressure
19 at a given point, because we didn't have pressure
20 transmitters everywhere, wouldn't work. And it didn't
21 work. And the only way that you can know it's safe is to
22 test it. But, again, at this time I didn't realize that,
23 I just knew that this wasn't enough, but I didn't know
24 what to do instead.

25
26 (Grand Jury Exhibit 657 was marked for identification.)

1
2 Q. All right. So let's go on to 657.
3 A. Okay.
4 Q. Do you recognize 657?
5 A. I believe so.
6 Q. All right.
7 A. I believe so.
8 Q. So 657 starts off with an email from Bob
9 Fassettt dated May 18th, 2010, to a bunch of people.
10 "Subject: CPUC IMP audit notes, day one."
11 A. Right. So I wouldn't have seen this top part
12 because it's not addressed to me, but I would have seen
13 the stuff below.
14 Q. The second email is addressed to numerous
15 people, including yourself, is also regarding CPUC IMP
16 audit notes, day one, 5/17/10?
17 A. Right.
18 Q. And then describe for us the rest, what makes
19 up the rest of this exhibit.
20 A. It looks likes it's the notes that Calvin took
21 on that first day of the audit.
22 Q. So Day 1, 5/17/10, that's the same day as your
23 memo is dated; correct?
24 A. Yes. Yeah.
25 Q. And the same day that you told Frank Dauby that
26 -- well, that you mentioned Custer in your conversation?

1 A. Right.

2 Q. In your conversation with Frank Dauby?

3 A. Right.

4 Q. So you said the auditors were Sunil Shori and
5 who else?

6 A. Aimee Cauguiran. I'm not sure -- Cauguiran --
7 I'm not sure I'm pronouncing her name correctly. Dennis
8 Lee and Paul Penny.

9 Q. And who were the PG&E team for the audit?

10 A. For the first day, Sara Burke, myself, Thach
11 Ha, Frank Dauby, Calvin Lui, Jeff Nicholson, R. L.
12 Mulder, and Debra Zearbaugh.

13 Q. And what were the items of discussion?

14 A. You want me to read it?

15 Q. Sure.

16 A. "Key items of discussion:

17 Concerns that distribution mapping back log may
18 affect our ability to identify a new HCA in a timely
19 manner. PG&E explained that while the plats are one of
20 many sources used in HCA review, they are not the primary
21 source of information."

22 Second bullet, "MAOP versus MOP continued
23 discussions on PG&E's use of MOP as equivalent to MAOP.
24 PG&E reaffirmed its position and definition as stated in
25 RMP 06 and TD, dash, 4125S."

26 Q. Okay. Let me stop you right there. What's the

1 difference between MAOP and MOP?

2 A. The federal code says that the, that the code
3 -- the pressure that a pipe or a pipeline segment may
4 operate at is -- the highest pressure that it may operate
5 at is the MAOP. Stands for maximum allowable operating
6 pressure.

7 Q. What's MOP?

8 A. But a pipeline is made up of a bunch of
9 segments, and the segments may have different allowables
10 than, than each other. And the pressure that you can
11 operate the pipeline at might be less than you can
12 operate some of the segments at, because you're limited
13 by the weakest link in that pipeline.

14 So PG&E wanted to -- in order to be able to
15 manage the pipeline and decide, gee, should we replace a
16 bunch of this pipe so we could potentially raise the
17 pressure on it, we tracked the pressure of both, the
18 allowable pressure of segments of pipe as well as the
19 pipeline as a whole. And to differentiate between those
20 two, we looked at the whole pipeline and said the -- and
21 I could be getting the two mixed up. One was one, one
22 was the other. But I believe the MAOP was the maximum
23 allowable operating pressure of the pipeline, and the MOP
24 was the maximum allowable pressure for the pipe segment.

25 So if we -- if you had a pipeline that was
26 qualified to 200 pounds and you replaced 1,000 feet of it

1 with brand new pipe with much thicker wall and you
2 pressure tested it so that it was qualified to 300
3 pounds, the MOP, all those little segments on the end
4 would be 300 pounds, but the MAOP of the whole pipeline
5 would still remain at 200, and the MOP of the first
6 segments would also be at 200.

7 And we had had a big discussion with Sunil
8 because his concern was that we should calculate our high
9 consequence areas using the MOP, that higher value even
10 though we could never operate the pipeline at that
11 pressure. And we so we had -- so that's what this is
12 referring to.

13 Q. Okay. So go on. Well, we can skip that.

14 A. Okay.

15 Q. These are the items that were discussed on that
16 first day. Were you involved with the audit after the
17 first day?

18 A. I believe so, but I don't remember. I'd have
19 to look at the notes. There's -- the CPUC, when they do
20 an Integrity Management audit, they have, as I described,
21 a series of protocols, they step through the whole
22 program. And I would have stayed as long as they were
23 talking about HCA identification and threat
24 identification. And when they got into DA and ILI work,
25 I wouldn't have been there.

26 Q. Did the subject of your memo come up?

1 A. It did not.

2 Q. Did you raise the subject of your memo?

3 A. I did not.

4 Q. Why not?

5 A. Well, because I didn't think it was a very good
6 memo. And, as I described to you before, the discussion
7 with the PUC was that they're looking for compliance with
8 the rules, they're not looking to give you engineering
9 advice on how to fix something. So if I had talked to
10 them about it, all it would have done was to start a
11 clock to say, "You've got to get this done in X down the
12 road, in X amount of time." And I didn't know how to do
13 it. But I expected it to be discussed because it was
14 part of the protocol. I don't know why they didn't
15 discuss it.

16 Q. So you prepared the memo because it was, that
17 topic was one of the possible subjects --

18 A. I expected it to be discussed.

19 Q. -- of the audit? And it didn't come up during
20 the audit?

21 A. It did not.

22 Q. And you didn't bring it up during the audit?

23 A. I did not.

24 Q. But it was a question of compliance; correct?

25 A. Yes. Although, I think we argued previously,
26 not to you or, but in other forums, that the rule says

1 that you start with a framework and you build from there.
2 And so they audited us in 2005, and we didn't have a
3 policy then either, but they didn't find us in
4 noncompliance I believe in part because they saw it as a
5 framework and we would get better, we would fill it out
6 as we went along.

7 So they might have just said -- they might not
8 have said it was a noncompliance item, but they might
9 have said, "You have to get this done, this is no longer
10 -- you're no longer framework stage, you need to have a
11 mature program, you need to provide us an answer on what
12 to do about this." That's what they could have said.
13 They could have also said noncompliance, but it wasn't
14 guaranteed.

15 Q. And you didn't have a mature program?

16 A. Not for this. We had a pretty mature program
17 when we were measuring, but we weren't measuring what we
18 needed to measure to be able to say whether we'd
19 activated the threat or not.

20 Q. Going into the audit, were you given any
21 instructions by your supervisors?

22 A. During the audit, yes; not that I remember
23 going into it.

24 Q. What type of instructions?

25 A. During the audit, after I gave a particularly
26 long and involved answer, I was pulled aside both by Bob

1 Fasset and Sara to remind me -- or to ask me to answer
2 the questions that were asked, don't answer a bunch of
3 questions that aren't asked.

4 Q. Bob Fasset wasn't part of the audit; correct?

5 A. His name's not on here, but I thought he was
6 there, because I don't think he would have said anything
7 if he wasn't in the room. I think he was there. I think
8 at least when we discussed the issue that, that, that
9 they talked to me about after I -- when we talked about
10 MOP, I thought they were, I thought Bob was there. I
11 know his name's not on here, but I thought he was there.
12 Because what I remember is that at a break Bob pulling me
13 aside and giving me that instruction. I've had the
14 chance to think about it the last couple weeks, because I
15 think you asked me about this before. That's what I
16 remember.

17 Q. Well, we'll come back to that.

18 All right. Let's move on to 658.

19

20 (Grand Jury Exhibit 658 was marked for identification.)

21

22 A. Okay.

23 Q. Do you recognize 658?

24 A. Yes.

25 Q. What is 658?

26 A. It's an email between Gene and me and Thad

1 Quaas, who was the -- says it's to me -- actually, I take
2 it back. I'm not sure what the heck is going on here.
3 Starts out by saying "Thad," but it's written to me. I'm
4 not sure. Take it back, I'm not sure.

5 Q. All right. Let's walk through this. Who is
6 Thad Quaas?

7 A. I believe he was a transmission planning
8 engineer. He worked for Rick Brown.

9 Q. Okay. Who is Rick Brown?

10 A. He was the supervising engineer manager of the
11 Transmission Planning Group.

12 Q. All right. So this email's asking questions
13 about MAOP and a line, line 191S. So explain to us the
14 question in this email.

15 A. Let me read it. Okay. I'm not sure I
16 understand all of it, but okay.

17 Q. Well, this is a question about MAOP; correct?

18 A. Yes.

19 Q. And how that's established?

20 A. Right. That's correct.

21 Q. Okay.

22 A. Partly. In part. It's a lot about the
23 limitations that the seam threat reviews its -- Gene has
24 done is putting on the system that Thad is planning on
25 using that winter.

26 Q. Who is Gene Muse?

1 A. Gene worked for me. He was a, he was an
2 engineer that was tasked with helping us identify
3 potential areas where we had a manufacturing seam threat.

4 Q. All right. So read to us Gene Muse's response.

5 A. To me. So maybe sent this to me for comment.

6 "Thad, I've reviewed the code again and can,
7 unfortunately, offer you no different guidance than what
8 we -- when we first talked towards the beginning of the
9 year. HCA pipe with a seam weld threat, that is pipe
10 formed with a low frequency ERW process or pipe with a
11 joint efficiency less than 1, cannot, by code, be
12 operated above the five-year maximum historical operating
13 pressure on that line. When this rule went into effect,
14 that five-year maximum was 257 psig. And that remains
15 the current maximum allowable operating pressure. We can
16 set the primary regs at this station to that value,
17 provided the monitors are set to a value not more than 10
18 percent above this number. To go to a higher operating
19 pressure requires an assessment of that seam. The
20 preferred assessment method is a pressure test to 1.25
21 times the new MAOP.

22 The 261 psig value that was recorded on
23 7/1/2007 is an increased operating pressure above the
24 five-year high, and we may have to do a reassessment of
25 the pipe segments that were potentially affect by the
26 increased pressure. That pressure excursion, however,

1 does not establish a new five-year maximum."

2 Q. And then it cites the code.

3 A. "For reference, CFR 192.917(e) (4) ERW Pipe,
4 which states, 'If a covered pipeline segment contains low
5 frequency electric resistance welded pipe, ERW, lap
6 welded pipe, or other pipe that satisfies the conditions
7 specified as ASME/ANSI B31.8S, Appendices A4.3 and A4.4,
8 and any covered or noncovered segment in the pipeline
9 system with such pipe has experienced seam failure, or
10 operating pressure on the covered segment has increased
11 over the maximum operating pressure experienced during
12 the preceding five years, an operator must select an
13 assessment technology or technologies with a proven
14 application capable of assessing seam integrity and seam
15 corrosion anomalies. The operator must prioritize the
16 covered segment as a high-risk segment for the baseline
17 assessment or a subsequent reassessment.'

18 If you have any questions about this, please
19 give me a call.

20 Bill Manegold and I met and discussed what, if
21 any, options we had in using the highest MAOP for line
22 191S, line 191, dash, 1. In the end, we are held to the
23 code that's outlined in," then it's blank.

24 "As we have discussed, I have determined the
25 baseline five-year historical high MOP -- MOP for this
26 pipeline to be 257 psig on 12/11/2002. The MOP which you

1 can operate the pipeline is 257 psig. If we want to use
2 the 268 psig MAOP/MOP, we have three options: Hydro test
3 pipe segments, replace pipe segments, or assess the pipe
4 with proven technologies, smart pig." That was one of
5 the options left off when we discussed before about what
6 we could do for assessments.

7 Q. So this seems to be dealing with the same topic
8 as your memo; correct?

9 A. It is, but it's much earlier. It's towards the
10 beginning of the -- well, it's not the very beginning of
11 the program, it's probably -- program probably started in
12 January, just to look at the issue, but 2010 was much
13 further along.

14 Q. So basically, make sure I understand this
15 correct, you would determine the MAOP or MOP based upon
16 the highest historical pressure on that line five, within
17 five years of that becoming or being identified as a
18 high-risk segment; correct?

19 A. No, I wouldn't say that. What I'd say is that
20 what Gene is telling him is that -- this is a pipeline
21 that looks like it's one of those grandfathered
22 pipelines. I don't know that, but I think it is, because
23 it hasn't been tested. So it would have been limited to
24 an operating pressure, the highest pressure you had seen
25 between the years 1965 and 1970. That might be at, say,
26 300 pounds.

1 Then the Integrity Management Rule comes along
2 and says, "You can't outdate your pipeline, with one of
3 these manufacturing threats, without activating it at a
4 higher pressure than it's seen in the last five years.
5 Nevermind what it saw in '65 or '70. So if in, if in
6 1970 you were qualified to operate it at 300, but now in
7 the last five years the highest it's seen is 268, you
8 can't operate it above 268 without activating that
9 threat.

10 And Gene and I, we, again, we had decided we
11 were going to measure at the regulator station at this
12 point, and we said, "We're going to tell them that if
13 they -- if we've got a five-year maximum, they shouldn't
14 be going above that."

15 Q. So, in this case, this line had been being run
16 in excess of its maximum?

17 A. The five-year. That's what this is indicating.

18 Q. Right. The maximum allowable pressure was set
19 at 257, but according to the original email, in 2007 this
20 line was being run at 261?

21 A. Yeah. And it may not exceed the -- let's see.
22 Where is the 261 part? Above the five-year. Right.
23 It's above that five-year; 257 versus 261. Right.

24 And, again, the -- because that is operating on
25 the assumption that he can operate it at anywhere up to
26 that five-year maximum that was established in the '65

1 through '70 period, which, like I said, may even have
2 been higher still.

3

4 (Grand Jury Exhibit 660 was marked for identification.)

5

6 Q. Okay. All right. So let's walk through one
7 more real quick.

8

9 Finally, we've got 660. Should be the last
10 exhibit in front of you we haven't talked about.

11

12 A. You don't have another box of exhibits under
13 your desk, do you?

14

15 Q. Nope.

16

17 A. Good.

18

19 Q. This is it. This is the last one.

20

21 All right. So what is 660?

22

23 A. It's an email written from me to Todd Arnett
24 and Keith Slibsager.

25

26 Q. This, again, is talking about that five-year
maximum operating pressure?

27

28 A. Right.

29

30 Q. And what happens if that five-year is exceeded;
31 correct?

32

33 A. Correct. And I'm warning both Keith, who
34 worked in Gas, who is the supervisor in Gas Control, and
35 Todd, that Todd's memo about potentially exceeding the
36 five-year maximum is something that we can deal with

1 fairly simply is going to be a, not a simple thing at
2 all. It's going to be a big deal if he exceeds it.

3 Q. Let's go down to Todd's memo and have you read
4 the first couple of sentences.

5 A. "Keith, this is an interesting and somewhat
6 complex issue, one we're not likely to have resolved
7 anytime soon. Here's my current thinking on this.

8 Let me frame it this way: I see this as a
9 business decision, not a code compliance decision. As
10 such, we don't need to change alarm set points to meet
11 code. This is not an MAOP issue, because the code
12 doesn't require a change in the MAOP, and code doesn't
13 restrict us from operating above the five-year high.
14 Based on that, my advice is to not alter the MAOP
15 standard or alarm policies.

16 It merely states that if these pipelines
17 operate above the preceding five-year high pressure, we
18 must take extra steps. The code reference is
19 192.717.e.4. 'The operator must prioritize the covered
20 segment as a high-risk segment for a baseline assessment
21 or a subsequent reassessment.' I don't know all of the
22 implications of adding a segment to an assessment plan as
23 a high-risk segment, but possible outcomes may include
24 ECDA surveys, direct inspections, hydro testing it, ILI,
25 or pipe replacement. I think the Integrity Management
26 Group is working on that angle.

1 So the business decision is whether or not to
2 lower alarms to reduce the likelihood of these certain
3 segments from potentially getting added to assessment
4 plans as high-risk segments. A case-by-case analysis may
5 be more cost-effective than wholesale approach."

6 Q. Explain to us what Mr. Arnett is talking about
7 here.

8 A. Well, to fully understand it, you'd have to
9 read some of these other notes.

10 Q. Okay.

11 A. But what he's addressing was, I think, was
12 Keith's request to Todd, or inquiry to Todd about whether
13 they should change alarm points on the system. When
14 high-pressure alarms should be sounded for them, that
15 would necessitate them to take an action. And he's --
16 what Todd is saying is that there's no code requirement
17 that we can't exceed these five-year maximums, which is
18 true, and that if we exceed them and we have to do an
19 assessment, then we'll just do the assessment.

20 Q. Okay. And you're saying that's not a good
21 idea?

22 A. Well, I didn't think so, because I thought that
23 the pressure tests would be difficult.

24 Q. Okay. And you actually say that if you do
25 exceed, DA is not an option; correct?

26 A. Well, indirectly I say that. I don't know if I

1 said it directly. Yeah, I do say it direct. "DA is not
2 an option."

3 Q. "DA is not an option."

4 A. Right.

5 Q. You say, "In rare instances, we may be able to
6 ILI"?

7 A. Correct.

8 Q. "But if you do this, we either have to pressure
9 test or replace"?

10 A. Right.

11 Q. And that's an expensive proposition; correct?

12 A. Among other things, yes.

13 Q. All right. So let's move on to our last topic.
14 Try and go through this really quick.

15 You mentioned earlier, just briefly, a top 100
16 list?

17 A. Okay.

18 Q. Can you explain to us what the top 100 list is?

19 A. It was a list our group came up with to try to
20 highlight what we considered to be the highest risk
21 segments in our system using the risk algorithms that we
22 developed in RMPs 1 through 5. We had developed a risk
23 profile for our system that showed all the segments that
24 had risk number that exceeded a certain value. And that
25 value started from the lowest risk value, which would
26 have been zero -- and in a relative risk system, a zero

1 doesn't mean that there's no risk, it just means that
2 it's the lowest of the group -- up to the very highest.

3 So that -- and then the Y axis on this chart
4 was the total number of segments. The X axis was the
5 total risk. So this curve that was generated looked like
6 a ski slope. Really high on the upper left, meaning all
7 the segments would have been at this value that was
8 greater than the very lowest, lowest of the low values.
9 And then dropping down so that at the very end, where you
10 had the very highest risk segments, you only had one or
11 two segments there. Very low number at the very far end,
12 very high number at the very close end.

13 Our goal in the risk program is to try to cut
14 off the nose of that curve. We wanted to try to
15 eliminate the segments that had the highest risk. But
16 it's a, it's a very small nose. A hundred segments,
17 which is what we looked at in the top 100 list, and that
18 would be a hundred segments of which maybe 40 of them
19 might be those that have the highest overall risk, then
20 10 of them might be those that have the highest
21 likelihood of failure for materials, 10 of them might be
22 those that have the highest likelihood for failure for
23 corrosion.

24 There are a number of different ways that we
25 made up that 100, but it was these highest-risk segments.
26 Sometimes it didn't even add up to a hundred. Some years

1 we took a bigger sample; we might have taken 20 or 30, so
2 it ended up to 180 segments. But because we used this
3 from year to year, people knew the term, we kept it, we
4 called it "the top 100."

5 Q. Okay. So basically you risk-ranked your entire
6 system every year?

7 A. Yeah, all 24,000, whatever it was, segments.
8 Right.

9 Q. That's making a risk calculation based upon the
10 risk that it's going to occur, the consequence that's
11 going to occur; right?

12 A. Right. Although, like I said, some of the top
13 100 could have also been made up of things that we're
14 just concerned about the likelihood of failure of a
15 component for one particular thing. Because if we said,
16 for instance, we're very concerned about earthquakes, but
17 this pipe is, has low values for everything else, but for
18 earthquake it's really high, it's still never making it
19 in the top 100. So we sometimes said, "Okay, we realize
20 there's flaws in our methodology, so -- but we know
21 earthquakes are important, so we're going to take the top
22 10 ground-movement threat segments. Even though
23 everything else about them looks good, we're still
24 concerned because it crosses, say, an earthquake fault."

25 Q. The top 100, or whatever the number ended up
26 being, not actually 100, were the most riskiest segments

1 in your system for whatever reason?

2 A. That's what we had calculated. That's right.

3 Q. What was that list used for?

4 A. The first year that I got there, it was used to
5 develop a list of projects that were to be included in
6 the CPUC rate application.

7 Q. What is the CPUC rate application?

8 A. I'll explain, but I'll let you know I wasn't
9 done with that part, too.

10 Q. Okay.

11 A. But the CPUC rate application is where we go
12 before the CPUC and say, "We would like to do these
13 projects, we would like to raise rates to cover this
14 work."

15 And the PUC would either say, "Yes," or, "No,"
16 or, "We agree with part of it, but not all of it, and
17 this is what we accept, this is what we don't accept.
18 And this is how much money we're going to give you to do
19 that work, this is how much you can raise your rates to
20 cover that."

21 Q. So the CPUC regulates what you can charge for
22 gas?

23 A. Correct. I'm not an expert on the rate
24 application process. It's different between Transmission
25 and Distribution.

26 Q. Right. And to raise rates on the Transmission

1 side, which is bulk delivery of gas, you have to go to
2 the CPUC and justify to them why you need to raise the
3 rates; correct?

4 A. Correct.

5 Q. And to justify, you present the CPUC with a
6 list of projects and say, "These are high-risk projects
7 that we have to do, here's how much they're going to
8 cost"?

9 A. Yeah. Yeah.

10 Q. Okay. So the top 100 list was done, in some
11 part, to support your CPUC rate cases?

12 A. For one year, yes.

13 Q. Okay. How many of the top 100 riskiest
14 projects on that top 100 list that were used to support
15 that rate case were actually done after CPUC gave you a,
16 a rate increase to do those projects?

17 A. I think there were -- in that rate case, I
18 think there were like five projects that we identified;
19 five or six, something like that. Because what we would
20 try to do is we would, in that top 100, there might be 10
21 segments in a row all together that would be all high
22 risk. We would clump those together to make that a
23 project. And I believe those were all pipeline
24 replacement projects and, in that year. As far as I
25 know, none of those were done. I could be wrong, but I
26 don't believe any of them were done. That's what I wrote

1 in that email that I sent to Wayne.

2 Q. So PG&E went to CPUC and said, "We need to
3 increase our rates to pay for these projects," and then
4 never did those projects?

5 A. That's correct. It doesn't mean that they
6 didn't do other projects, but they didn't do those
7 projects.

8 MR. NOEL: It's been a long day. That's all I
9 have. Does the jury have questions?

10 (Counsel and Grand Jury Foreperson confer.)

11 THE WITNESS: Can I add one thing still? On
12 the record?

13 MR. NOEL: What's that?

14 THE WITNESS: When I talked to you about what
15 Bob and Sara told me, I think that might have been a
16 topic that we discussed a few weeks ago. I don't
17 remember if it was or not. But I don't remember what I
18 said then. I do know if I talked to you about it, then I
19 don't believe I told you the part about the, what the
20 timing of it, because I didn't remember it at that time,
21 but I've had a chance to think about it since then.

22 Q. Well, that was something you also testified to
23 in your federal testimony; correct?

24 A. I believe so. Both in the Grand Jury and in
25 the, and in the trial. I think so.

26 Q. And I believe in your federal testimony the

1 essential conclusion that was asked was basically they
2 were telling you not to volunteer or bring up anything
3 unless the CPUC asked?

4 A. They said, "Don't answer questions that aren't
5 asked," that's correct.

6 Q. And then there was an entire discussion about
7 the CPUC had no idea about the, this issue with MAOPs and
8 so how would they have known to ask?

9 A. And, as I said, they had a series of protocols,
10 which is why we expected them to ask, but they didn't. I
11 don't know why they didn't go through the protocols.

12 Q. All right. These are questions from the jurors
13 that I'll read to you.

14 A. Okay.

15 Q. The first question deals with the federal
16 convictions.

17 This isn't the witness to ask that to. We'll
18 deal with that later on. We'll have further witnesses
19 that can deal with that. This is not within the scope of
20 this witness's knowledge.

21 All right. In assessing risk, was there any
22 weight given in the likelihood of event to environmental
23 factors, such as wind, temperature, age of materials,
24 humidity, et cetera?

25 A. For gas pipelines, not that I remember, no. We
26 looked at environmental factors, but that was only for

1 consequences, not so much what it would do to the gas
2 system, but what would happen in a gas system failure,
3 what it would do for the environment. But wind,
4 temperature -- I'm not sure about temperature. There
5 might be something. I just don't remember. I'd have to
6 have the standards in front of me.

7 Q. Do you have any knowledge about the electrical
8 transmission and distribution side of the company?

9 A. A little about the distribution, because I
10 worked as an estimating supervisor for I think seven
11 years in Fremont.

12 Q. To your knowledge, in your experience, were the
13 electrical transmission and distribution systems of PG&E
14 subject to a similar or identical System Integrity
15 Management Program?

16 A. Identical, definitely not, because they're not
17 governed by the same federal regulations. There are
18 state requirements, yes. There's the General Orders for
19 overhead and underground construction. I can't remember
20 what the numbers are. I think they're -- I can't
21 remember what they are. There's one for overhead
22 construction and one for underground. I think 128 -- I
23 do remember. I think underground construction is General
24 Order 128 and overhead is something GO 95, I think. I'm
25 not sure. And I don't know if it does anything with
26 transmission. I believe it covers the distribution lines

1 only.

2 Q. When utilizing or considering industry best
3 practices, was any consideration given to utilizing
4 practices that exceed industry best practices?

5 A. Chris Warner, our -- the supervisor in charge,
6 and Alan Eastman, the supervisor who was Chris' boss at
7 that time when the program was conceived back in 2002, I
8 think their goal was to do that. I think they wanted to
9 have the best program in the country. It was their goal.

10 Q. What happened to that goal?

11 A. Well, I think we did a lot of work towards
12 building towards it, but San Bruno happened and things
13 changed.

14 Q. Why did San Bruno happen?

15 A. Because in 1956 PG&E put into the ground a
16 piece of pipe that wasn't intended to be used as pipe.
17 And they covered it up, again, they thought it was like
18 the other pipe that they put in the ground, and it wasn't
19 at all. And in 2010, it blew up.

20 Q. How was it that that piece of pipe was left in
21 the ground for all of those years?

22 A. Because once it's buried, they can't -- and
23 even when they built that line, they couldn't, they
24 didn't see that -- the way that it was manufactured.
25 They saw on the outside of the pipe that there was a seam
26 weld, and they didn't look on the inside to see that

1 there wasn't any seam weld, which, which there should
2 have been. There was no weld at all.

3 Q. The ultimate question is would that pipe have
4 continued in that condition had PG&E had a thorough and
5 vigorous inspection program?

6 A. I don't think that would have -- in my opinion,
7 it wouldn't have changed anything. If we had been
8 required, however, to pressure test all untested lines,
9 we would have found it, which is why the state required
10 us to do that for all our lines after that date.

11 Q. So if you throw into that equation, if PG&E had
12 a centralized record-keeping base and thorough and
13 complete records, and it would have been known that there
14 had been a previous seam weld leak on that line, would
15 that line have been allowed to remain in the ground for
16 that long without being pressure tested?

17 A. We talked about this at the interview a few
18 weeks ago. I don't think it would have made any
19 difference, in my opinion. The line that had the leak,
20 which I'm not convinced was even on the seam, but it, it
21 may have been, and as I told you, the reason I don't -- I
22 question whether it was on the seam or not is because I
23 had talked to the engineer who was in charge when it was
24 removed, or at least it's my understanding he was in
25 charge, and I read the report about how they had tested
26 that pipe after they had pulled it out of the ground back

1 in, whenever it was, whenever it failed, 1988, that where
2 they couldn't find the leak at all. And since there was
3 desawed (phonetic) pipe and it didn't fall into one of
4 those categories that automatically activated a seam
5 threat when it leaked, I don't think they would have
6 found it.

7 And if it had found it, it would have been an
8 extremely lucky thing because, again, the reason that one
9 pipe failed and the other pipe failed was very, very
10 different. It was different material. It wasn't pipe
11 that was meant to be pipe that was put in the ground in
12 San Bruno that blew up. And the pipe that leaked in 1988
13 was regular line pipe, but it just leaked.

14 Q. Okay. Finally, in your opinion as an engineer,
15 do you think cost was given an outsized influence on
16 decisions regarding risks of failure?

17 A. I didn't think so. And looking back on it,
18 because of what I told you about San Bruno, I still don't
19 think so. That's my opinion. At least for the work that
20 I was involved with.

21 Q. Cost played a huge factor in the inspections,
22 the assessments that you did on lines; correct?

23 A. On some of them, yes. And we talked about some
24 of those today. It did make a big difference there.

25 MR. NOEL: Anything further?

26 That's it. Finally, you're done.

1 THE WITNESS: Thank you.

2 MR. NOEL: A lot shorter than your previous,
3 but still a long day.

4 THE WITNESS: Thank you.

5 GRAND JURY FOREPERSON: Mr. Manegold, one more
6 admonition before you leave.

7 THE WITNESS: Goody.

8 GRAND JURY FOREPERSON: Mr. Manegold, you are
9 admonished not to discuss or disclose at any time outside
10 of this jury room the questions that have been asked of
11 you or your, or your answers until authorized by the
12 Grand Jury or the Court. A violation of these
13 instructions on your part may be the basis for a charge
14 against you of contempt of court. This does not, this
15 does not preclude you from discussing your legal rights
16 with your own attorney.

17 Mr. Manegold, what I have said is a warning not
18 to discuss this case with anyone except the Court, your
19 lawyer, or the district attorney. Any questions?

20 THE WITNESS: No.

21 GRAND JURY FOREPERSON: Thank you. Thank you
22 for your time today.

23 THE WITNESS: Thank you.

24 MR. NOEL: All right.

25 [DISCUSSION OMITTED.]

26 --oOo--

COURT REPORTER'S CERTIFICATE


This is to certify that I, JENNIFER L. HUNT, CSR, a Certified Shorthand Reporter of the State of California, was present at the time and place the foregoing proceedings were had and taken in the within matter; that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings and afterwards caused my said shorthand writing to be transcribed into typewriting. Further, pursuant to CCP237 all reference to jurors by name has been redacted.

The foregoing pages beginning at:

1 through 209

are certified to be a complete transcription of said stenographic shorthand notes.

DATED: THIS 6TH day of JUNE 2022



JENNIFER L. HUNT, CSR 10735
OFFICIAL REPORTER

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IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

BCSC-2019-GJ-01

REDACTED
CERTIFIED
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REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, NOVEMBER 12, 2019

VOLUME 25

OROVILLE, BUTTE COUNTY, CALIFORNIA

JENNIFER L. HUNT, CSR 10735, OFFICIAL COURT REPORTER

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OROVILLE, BUTTE COUNTY, CALIFORNIA

TUESDAY, NOVEMBER 12, 2019

1:30 p.m.

(Confidential Grand Jury Proceedings)

-oOo-

[ROLL CALL OMITTED.]

[DISCUSSION OMITTED.]

GRAND JURY FOREPERSON: Will you, please, raise
your right hand to be sworn.

THOMAS WRIGHT, JR.
having been called as a witness in
the matter now pending, having been first
duly sworn, testifies as follows:

THE WITNESS: I do.

GRAND JURY FOREPERSON: Thank you.

Have a seat please.

EXAMINATION

BY MR. NOEL

Q. Mr. Wright, for the record, can you state your
full name, spelling your last name.

A. Sure. Thomas Joe Wright, Jr. W-R-I-G-H-T.

Q. Mr. Wright, by whom are you employed?

1 A. Pacific Gas & Electric.

2 Q. In what capacity?

3 A. Presently I am the director of Transmission and
4 Substation Risk Analytics.

5 Q. How long have you been with PG&E?

6 A. With PG&E since July of 2010, so almost ten
7 years; 9 1/2 years.

8 Q. What does a director of Transmission --

9 A. -- Risk Analytics?

10 Q. Transmission Risk Analytics do?

11 A. So, I am, presently I'm in charge of the WSIP
12 Program is what I'm dealing with now, which is a Wildland
13 Safety Inspection Program.

14 Q. Okay. We'll get to that in a second. But what
15 else does your job as a director entail?

16 A. So most of my group looks at data that comes in
17 from the field, we make judgments as far as what our,
18 what we're finding on condition assessments, and we set
19 plans to either make repairs or replacements, things like
20 that --

21 Q. What do you mean by --

22 A. -- of equipment.

23 Q. What do you mean by equipment condition
24 assessments?

25 A. Well, we take data that comes in from
26 inspections and data that we have from things that we

1 have done to take a look at our, whether they be
2 transformers or they could be some of our line equipment,
3 could be towers, could be poles. And we take a look at
4 Condition Inspection Reports, and we make determinations
5 what the best way to handle some of that information,
6 whether it's repair, replace, you know, or, you know, use
7 the work, use the -- continuous of the equipment or shut
8 it off or --

9 Q. All right. When you're talking about
10 inspections, would that include, for instance, the annual
11 inspections or patrols of transmission lines?

12 A. So annual inspections and patrols do not fall
13 within WSIP, so I don't have --

14 Q. I'm talking about your other --

15 A. My other role, no, I do not have the annual
16 patrols and inspections. Those are handled in our line
17 business. Those would be handle by our T-line or
18 substation organization.

19 Q. Okay. But what I'm asking is you said you
20 take, you take the inspection reports and determine what
21 to do, repair --

22 A. Yes.

23 Q. -- replace. The inspection reports you're
24 talking about, are those the inspection reports, the
25 annual inspection or patrol reports done on, on the
26 transmission lines themselves?

1 A. Yes. So the data we get are anything that
2 comes in from the field as far as assessments that are
3 done.

4 Q. Okay. So if the troubleshooters at Table Mountain
5 go out and do a inspection or patrol of one of the Table
6 Mountain transmission lines, that report ultimately makes
7 it to your division to determine what to do with that
8 information?

9 A. Yes. We'll come in and they will make a, there
10 will be a preliminary determination by the field and then
11 we would have an, we would have people in my organization
12 that would take a look at that and make sure that other
13 situations that are in the, that are to have occurred in
14 other places are handled similarly. So yes.

15 Q. Okay. Explain to us what you mean by that.

16 A. Okay. So if you have a piece of equipment that
17 -- you have an insulator string that has flash marks on
18 it. And you -- we would sit there and make sure that if
19 a notification was put on it, did they have the right
20 prioritization associated with it. And you'd want to
21 make sure that the prioritization is the same for that
22 one as it is for other ones that could be in other parts
23 of our territory based on what you see in the, as far as
24 the material that's given to us.

25 Q. Okay. So you would only see reports if they
26 found problems; is that correct?

1 A. No, we have a condition assessment that's given
2 to us as well.

3 Q. Okay. What's a condition assessment?

4 A. So we can have, we'll have people that will go
5 do inspections or gather data, and it can tell us whether
6 something's in good shape. Could be rated anywhere from
7 1 to 5, 5 being the worst. So you get a 1 condition
8 would be something that would be in good for condition,
9 and a 5 would be something we'd need to address
10 immediately.

11 Q. So these condition assessments, is that
12 something separate from the annual inspections or
13 patrols?

14 A. No. We do that -- so, if I understand you
15 correctly, we would, if you're -- I think what you're
16 asking is when they do these patrols, do they provide a
17 condition assessment? Is that what you're --

18 Q. Well, yeah. We can start there.

19 A. Okay. So we have -- when our folks do a
20 condition assessment of the assets, they make a
21 recommendation. So it's a qualified electrical worker,
22 which is a lineman or troubleman, would come in and he
23 would make an assessment based on what he's seen in the
24 field. And when he does that, then my group would sit
25 there and take a look at that, the data that he provides,
26 and make sure that we have the same -- in similar

1 situations have been handled similarly across the
2 territory.

3 Q. I guess, getting back to the question, is the
4 condition assessment done separately from the year, the
5 yearly patrol or inspection?

6 A. I'm not sure. So we have -- I'm trying to make
7 sure I answer your question. But it -- we have a guy in
8 the field, he's doing -- when he goes out and does his, a
9 qualified electrical worker goes out and he looks at the
10 equipment, he takes a look at it and he makes a
11 recommendation. He could say, "Hey, this is in great
12 shape," and he could take a picture of it and send it
13 back to us.

14 And we can come back and say, "Hey, you know,
15 this is -- you know, we need to make sure that we address
16 these flash marks," or these, these conditions that we
17 see.

18 And then a lot of those are due to the fact we
19 have, you know, a set of industry experts looking at
20 this. So there could be engineers or subject matter
21 experts or other linemen or other troublemen that are
22 taking a look and giving us a second opinion on some of
23 that information.

24 Q. So has there ever, to your knowledge, been a
25 condition assessment of the Caribou-Palermo 115 line?

26 A. Yes.

1 Q. When?

2 A. So we did, we did inspection in September of 20
3 -- August and September of 2018, and then we did one in
4 shortly after the Camp Fire.

5 Q. Okay. The inspection in August, September of
6 2018, are you talking about the annual patrol that was
7 done by, I believe, (WITNESS #18)?

8 A. I don't remember if it was (WITNESS #18), but I
9 believe -- I am talking about the one that was done
10 during that. I believe it was (WITNESS #18), but I don't
11 recall.

12 Q. Okay. So that's what, that's the annual
13 patrol, you're also saying that's a condition assessment?

14 A. Yes. They go out and -- let me back up.

15 They're not doing condition. They didn't do a
16 condition assessment in 2018. 2018, that was an
17 inspection that was done, which is different than an
18 assessment. Post Camp Fire, we became the WSIP program,
19 which included assessments --

20 Q. Right.

21 A. -- of our assets.

22 Q. And we'll get to that in a few minutes.

23 A. Okay.

24 Q. But, to your knowledge, when was the last time
25 there was a condition assessment done on the
26 Caribou-Palermo 115 line prior to the Camp Fire?

1 A. To the best of my knowledge, I would say, using
2 the criteria that we had in WSIP, we did not use that
3 criteria before the Camp Fire.

4 Q. So is a condition assessment something that is
5 post Camp Fire?

6 A. Well, I can answer to the, what we do post Camp
7 Fire.

8 Q. Right.

9 A. Previous to the Camp Fire I cannot answer to,
10 as far as the how that information was dealt with.

11 Q. Okay. So going back to pre Camp Fire, as part
12 of your group, did, as part of the Risk Assessment Group,
13 you were, said you're the ultimate recipient of the
14 inspection and patrol reports that are done by the
15 troublemen on each of the lines, and you make decisions
16 about fixing things, replacing things based upon those;
17 correct?

18 A. Right. We set prioritization based on the
19 conditions that we see, yes.

20 Q. So what you do or do not do is wholly dependent
21 upon those inspections then and patrols; correct?

22 A. Yes.

23 Q. So if the inspections and patrols are not
24 complete and accurate, then those would affect what your
25 decision does?

26 A. So we would be evaluating the information

1 that's being given to us, that's correct.

2 Q. Right. So if the troublemen are missing
3 things, you would never know about them to determine if
4 they need to be replaced or repaired; correct?

5 A. Well, depends on what kind of inspection is
6 done. So post Camp Fire --

7 Q. We're still talking about pre.

8 A. Pre Camp Fire. Okay. Pre Camp Fire, it would
9 be based on the, only the information that we were given.
10 And remind you, that this organization that I'm in now,
11 we didn't exist as it is before the Camp Fire.

12 Q. Okay. What was your job before the Camp Fire?

13 A. So before the Camp Fire, most of my, I spent
14 most of my career at PG&E in substations. And so I've
15 been in everything from asset management in substations
16 to I was the director of substation maintenance
17 construction, and I've also been director of project
18 delivery and engineering for substations.

19 At the -- within -- in July of 2018, I was
20 sitting in the asset management chair on an interim basis
21 while the asset manager, senior director was helping with
22 our Accelerated Wildfire Program that was doing the tree
23 trimming.

24 Q. Who was that person?

25 A. That would be Dave Gabbard.

26 Q. And what is the accelerated wildfire treatment?

1 A. It was our accelerated program where we looked
2 at our enhanced vegetation management program. And I'm
3 not super familiar with everything on there, but I -- it
4 is a program where we looked at our veg practices and,
5 vegetation management practices, and, you know, looked to
6 make them -- you know, to increase the right of ways that
7 we had in, where we could.

8 Q. Do you know when that program started?

9 A. I can give you a -- first, second quarter of
10 2018, somewhere in there.

11 Q. Okay. So after the fires of 2017?

12 A. I'm not a hundred percent certain. It's in
13 the, in that ballpark.

14 Q. Right. In October of 2017 there were a lot of
15 fires; correct?

16 A. Yes. Yes.

17 Q. We had the fires in the wine counties; Napa,
18 Sonoma, Mendocino, and Lake Counties. Right?

19 A. Yes.

20 Q. We had fires here in Butte County. We had
21 three separate fires. Also Yuba and Nevada County all
22 had fires in October '17 due to vegetation management
23 issues?

24 A. Correct. I believe that's correct, yes.

25 Q. All right. So tell us what asset management
26 does.

1 A. So in the asset management organization, we
2 look at -- we have asset plans, so we look at our
3 infrastructure and find -- you know, we, either through
4 condition assessments or capacity needs or low growth or,
5 you know, we set, we set our program as far as where we
6 should be putting our resources to enhance to make our
7 system better.

8 Q. When you say "resources," what are you talking
9 about?

10 A. The, you know, time, money, and, you know, our
11 men and women, our construction resources.

12 Q. Okay. How do you decide where to put your
13 resources?

14 A. That's, so that's not my expertise. My
15 previous experience has been more dealing with what that,
16 when that plan comes across and executing that plan.

17 Q. Okay. Now, you said earlier most of your
18 experience prior to 2018 was in substations; correct?

19 A. And through most of '18 as well.

20 Q. Through most of '18. Can you explain to us
21 what, for the record, what substation is?

22 A. Yeah. Substation is where we take, you know,
23 higher voltages that come off of our generating stations
24 and such, and we step down the voltages so it can become
25 part of our distribution system so we can serve our
26 customers. So we go into our, you know, we feed our

1 distribution network through the substations.

2 Q. How long had you been working in the area of
3 substations?

4 A. So I have, with PG&E, I was about 8 1/2 years
5 here in substations, and then previous to that I had
6 done, at other places I've worked in the substation
7 world, yes.

8 Q. Okay. And I neglected to do so, I'm sorry,
9 could you walk us through your educational background.

10 A. Absolutely. So in 1992 I graduated from the
11 University of Arkansas with a bachelor's of science in
12 electrical engineering.

13 In 2000, I graduated from the University of New
14 Orleans with a master's of engineering in engineering
15 management.

16 Q. What is engineering management?

17 A. So engineering management was, I liken it to
18 kind of a technical MBA. You learn how to deal with
19 engineering issues, the financial side of engineering
20 issues.

21 Q. So in November of 2018 you said that your role,
22 your job changed?

23 A. Absolutely.

24 Q. So give us a little overview of how your job
25 changed.

26 A. So in November of last year, post Camp Fire, my

1 -- I went, I moved from filling in for the gentleman in
2 the asset management organization to becoming the
3 director of transmission and substation analytics. And
4 so what that entailed is a setting up a team to take a
5 look at how we can improve or inspection program. And
6 we, we devised, my team put together and devised a way to
7 look at the, our assets in making sure we can get a
8 condition assessment versus just identifying
9 deficiencies.

10 Q. And was there a name for your program?

11 A. Absolutely. It was called the WSIP, which is
12 Wildfire Safety Inspection Program.

13 Q. All right.

14 A. And for the transmission piece.

15 Q. So before we get to that, the WSIP, are you
16 familiar with the Nine Lines Inspection Program?

17 A. I was -- yes, I'm familiar with the Nine Lines
18 Program.

19 Q. What is a Nine Lines Program?

20 A. So the Nine Lines Program that we put together
21 to take a look at what we felt were nine lines that were
22 very similar to the lines that were in the
23 Caribou-Palermo area and set up an inspection program to
24 take a look at those lines to make sure that we're, we
25 were, we had everything identified due to the fact that
26 there, that the location of where they were.

1 Q. All right. So let's back up. This is
2 something that occurred post Camp Fire?
3 A. Absolutely.
4 Q. Do you have an approximate date as to when the
5 Nine Lines Inspection Program started?
6 A. I believe it was the 10th of November,
7 somewhere about that time; 9th or 10th time frame.
8 Q. So while the fire was still burning, PG&E was
9 starting inspections?
10 A. Correct. These were detailed climbing
11 inspections.
12 Q. And you said that they were, the inspections
13 were of nine comparable lines to Caribou-Palermo?
14 A. Yes.
15 Q. What do you mean by comparable lines?
16 A. So the -- they were in, they were in the tier
17 1, tier 2 -- or excuse me -- tier 2 or tier 3 high fire
18 threat area, which was based on the Cal Fire maps of, I
19 believe, 2018. And they had similar terrain, and they
20 had similar consequence of, and they had similar weather
21 conditions, known to have similar weather conditions.
22 Q. Okay. Let's -- we'll come back to that in a
23 second. You should have in front of you what's marked as
24 662, Exhibit 662. Should be the other stack, I'm sorry.
25 I'm sorry, should be the second document in there because
26 I screwed up. I changed the --

1 All right. See 662? What is 662?

2

3 (Grand Jury Exhibit 622 was introduced.)

4

5 A. It's the, it's the CPUC fire threat map.

6 Q. That is what you were referring to with the
7 nine lines?

8 A. Yes. Yes.

9 Q. And where does this map come from?

10 A. So the CPUC publishes this on a periodic basis.
11 It determines, shows the areas that are, have the highest
12 fire or highest consequence due to fire.

13 Q. Okay. And this is a map that was adopted by
14 the CPUC January 19th, 2018, according to its own
15 heading?

16 A. Correct.

17 Q. Explain to us how to read this map.

18 A. So the highest threat area is in the red. And
19 then the second highest threat is in the yellow. And
20 then the white would be what we would call "tier 1." So
21 you have your tier 3 is red, tier 2 is yellow, and then
22 the tier 1, or the least hazardous, would be in the
23 white.

24 Q. Okay. So tier 3 is defined, according to the
25 map, as the extreme fire threat areas?

26 A. That would be correct, yes.

1 Q. And tier 2, the elevated fire threat areas?

2 A. That's correct.

3 Q. So exploded a view here, up there, this shows
4 Butte County; correct?

5 A. Yes.

6 Q. So would it look like in this, that a large
7 portion of eastern Butte County would be considered tier
8 3, including a large portion of the Feather River Canyon;
9 is that correct?

10 A. Yes.

11 Q. All right. So let's go back. So that's what
12 we're talking about when we're talking about high fire
13 threat areas. So the lines that you picked have many
14 comparables, including that they were in those tier 3 --
15 tier 2, tier 3 elevated fire risk areas; correct?

16 A. Yes. Yes.

17 Q. What were you inspecting those lines for?

18 A. So they were inspected under our previous
19 program we had that had a list, it was a list of possible
20 conditions and we marked for conditions. There was no --
21 they were -- he gave us a list of things to look on our
22 assets I guess is the best way to put it. If you had a
23 tower or you had a pole, he gave you a list of items to
24 look at on there. And if there was a problem, you noted
25 it at the bottom of the sheet.

26 Q. By that time, PG&E had a pretty good idea of

1 what failed on 27/222 and caused the fire; correct?

2 A. I'm not -- well, I'm not sure exactly what date
3 that was all truly determined, though. I mean, we
4 started this pretty quickly, so we're not -- I'm not a
5 hundred percent certain what date that was determined.

6 Q. Okay. Well, were you aware that PG&E had
7 troublemen flying this line, flying over the tower,
8 taking pictures on November 8th and November 9th?

9 A. I never saw them, but I heard that, yes, it was
10 done that way.

11 Q. So by the afternoon of November 8th, PG&E knew
12 that a jumper line on a transposition tower, the
13 insulator had come loose and was hanging upside down off
14 the tower?

15 A. Again, yeah, I, I think that was, I think there
16 was -- you know, there was condition -- there was an
17 assessment done on that line shortly after the fire
18 began.

19 Q. Well, shortly after the fire started --

20 A. Yeah.

21 Q. -- not when the fire ended; correct?

22 A. No, I said "began."

23 Q. Okay. I'm sorry.

24 So when people were set out to inspect the nine
25 comparable lines, were they given information about what
26 started it or what potentially caused the Camp Fire and

1 told to inspect those specific components?

2 A. I don't know. I don't know what -- I -- you
3 asked me what I know about the nine lines. I know that
4 they were done, and I know that they were used by our
5 previous inspection methods, ground power, detailed
6 inspection methods.

7 Q. All right. So now let's get into the WSIP.
8 And WSIP stands for what?

9 A. Wildfire Safety Inspection Program.

10 Q. And this is a post Camp Fire inspection
11 program?

12 A. Correct.

13 Q. Tell us what WSIP is.

14 A. So I had a team, we assembled a team, and the
15 team that reported to me looked at ways to inspect our
16 assets and then also be able to put a condition
17 assessment based on what we were finding. So we were
18 able to take our towers and poles and such and even items
19 at our substations and say then, do an, an assessment of
20 those. So we looked at all the failure modes that could
21 occur, anything that could occur on those towers, and we
22 detailed out 47 different items that we could look for,
23 and how would you look for those items. And that's what
24 we determined.

25 So some of those we could determine through a
26 visual inspection. But some of them you couldn't. And

1 some of them we had to do more. So you had to do either
2 an infrared inspection, a corona inspection, you know,
3 some electrical tests, things like that. But we were, we
4 took and put a method together to look at each one of
5 those.

6 We also sat down and devised what was the best
7 way to get the information that we needed to make the
8 right assessments. And what we determined is that we
9 could do a lot of these visually, but we needed to have
10 really good looks at this. So we were able -- we took
11 our, we took our assets and detailed the 50,000 assets
12 that we determined that were in the high, high wildfire
13 threat areas, and we determined that we needed to do some
14 form of an aerial inspection in order to get a much
15 better look.

16 So not only did we do a ground or climbing
17 inspection where we had our linemen or our contract
18 linemen come in and go and walk pole to pole or structure
19 to structure and climb the tower and take pictures, but
20 we also then instituted where we used a drone or
21 helicopter to help us get information off those. And we
22 were able to document all of the condition assessment of
23 the, of those assets.

24 Q. All right. So let's back up a little bit and
25 define some of your terms.

26 A. Sure.

1 Q. What is failure mode analysis?

2 A. So our failure mode analysis was we looked at
3 anything that could cause some form of an ignition
4 source. Anything that could fail on that tower or pole
5 that could create an ignition source. And we, and when
6 we looked at that, we also, the second part of it was is
7 how do you detect when there's a problem with that asset?
8 So we knew that the towers and poles fit into six
9 different types of materials that are used on our towers
10 and poles.

11 Q. All right. When you say "visual analysis for
12 identification," what are you talking about?

13 A. So we have, we got a guy that can -- I say a
14 guy or gal -- a qualified electrical worker, they would
15 go out and they would go out to the site where our asset
16 was, and they would either, if it was a wood pole
17 structure, they would stand on the ground and they would
18 look up and they would detail, look -- use a form. And I
19 don't know if -- I know we got some examples here, but we
20 have, we devised a form in which asked them questions.
21 And they went through and they answered the questions
22 based on the asset condition that they saw. And they did
23 that from the ground.

24 If it was a tower, the individual -- we would
25 have a team of four individuals who would go to the
26 tower, and three of the individuals would climb, and they

1 would be checking the members. And as they climbed, they
2 would go up and they would give assessment information to
3 the guy that was taking notes on the ground. And they
4 would put those notes in the system and they would fill
5 out a form. And it was asking similar questions. So it
6 was based on, you know, what they were seeing as they
7 were climbing those towers.

8 Q. All right. So you said you identified 47 items
9 in the tower that could fail and be an ignition source?

10 A. Yes.

11 Q. Of those, all but 19 could be inspected
12 visually. So that would mean 28 could be inspected
13 visually. Then you started to go through other nonvisual
14 inspection methods?

15 A. Uh-huh.

16 Q. I think you said infrared and corona. Can you
17 go through those nonvisual inspection methods and explain
18 them to us, please.

19 A. So we had some other nonvisuals. We had, there
20 -- we could do infrared, which is IR, is, you know, we,
21 basically taking a look at anything that's generating
22 heat. So if the line is energized while we're doing it,
23 we could pick up hot spots. The corona is contamination
24 or dirt or something like that. And this particular
25 camera would show that, you know, you would have, for
26 lack of a better term, the pictures looked very similar

1 to like an infrared-type picture, but it was based on
2 emittance of impurities due to dirt contamination on the,
3 on the structure.

4 We also had other electrical tests that we can
5 do. You know, some of it was like a ground test. Like
6 we could test the ground wire that was on a pole, which
7 was more of a continuity type test. We could do a Megger
8 test, which is kind of a little higher, little more
9 sophisticated ground test.

10 I was trying to think of any of the others that
11 we had. Those were the -- we had destructive testing as
12 well. One of the things that we did, as we were finding
13 things and we were replacing items that were on the
14 tower, we were taking some of those things off the tower
15 and, you know, where they, before they had, you know, in
16 the condition that they were, and we would take them and
17 send them to our ATS group and they would do destructive
18 testing on those. So they would take it and they would
19 put it in a machine and try to break it or bend it or
20 determine how much life was left in that. So we were
21 able to get that information as well.

22 Q. That kind, did that kind of testing include
23 things like C hooks?

24 A. So -- yes. We did, we did take some of those,
25 some of those components off, but I'm not sure we, I'm
26 not sure that -- now that I think, we may not have done C

1 hooks because I think those were under a different
2 protocol. I think those were under the protocol -- I'm
3 not sure if it was dealing with evidence collecting or
4 what was going on, but there was a protocol with C hooks
5 that we could not take and do destructive testing with.
6 So I was mistaken on that.

7 Q. So the methods of inspection that you went
8 through, I'm going to go through them one at a time. You
9 talked about ground inspections. So explain to us, under
10 the WSIP, what goes into a ground inspection.

11 A. So we had our qualified electrical workers that
12 we had contracted from all across the country. Each
13 person was qualified through the IBEW, had to be, and
14 they had to have their journeyman's license. And they
15 went through and they walked pole -- or structure to
16 structure, and they did a, an assessment from the ground
17 based on a form that we had derived earlier that detailed
18 each item that we wanted them to look at on that
19 structure.

20 So we had, we had a form that was developed for
21 wood poles, we had one that was developed for towers, we
22 had one that was developed for a 500 kV tower. And that
23 -- so from the ground, they would take -- not only would
24 they do an assessment, they would also take a picture of
25 the assets that are, of the items or the components that
26 were on the tower.

1 Q. You also mentioned climbing inspections?

2 A. That's correct.

3 Q. So just tell us about climbing inspections on
4 the WSIP.

5 A. So the climbing inspection, we sent a team, it
6 was either four or five guys, and they would go out and
7 -- once again, they were qualified electrical workers
8 certified by the IBEW -- and they would go out and they
9 would climb the towers. And as they would climb the
10 towers, they would be testing for strength of the members
11 of the tower, and they would also be doing condition
12 assessments as they worked their way up the tower. And
13 they would be doing much the same as the guy that was on
14 the ground, except this guy was, or gal, was climbing the
15 tower and they were making these assessments and taking
16 photos as they went up. So -- and they were looking at
17 each item as they went through.

18 I guess the information was inputted into what
19 we call the ProntoForms. So you may hear people talk
20 about ProntoForms. And our ProntoForms were forms that
21 we generated to capture this data and put it into a
22 database for us to be able to save and to use.

23 Q. You said the forms were developed earlier.
24 What are we talking about?

25 A. So earlier would have been in the month of
26 November. Because we started WSIP inspections somewhere

1 around the 10th of December.

2 Q. So post Camp Fire but December?

3 A. Yes. It was about in the three weeks there
4 between the nine lines inspection and the, and the WSIP
5 program kicked off.

6 Q. All right. And then you also mentioned two
7 different types of aerial inspections; correct?

8 A. Correct. We had one where we used drones, and
9 we -- and then a drone was brought out. We had a drone
10 and operator, usually two guys. One was a guy, one was
11 an operator of the drone, a certified pilot, who met the
12 qualifications of using it; then the other was a
13 gentleman or a lady that was used to, as far as safety
14 was concerned. We wanted to make sure that we were
15 operating the drones and have awareness of conditions
16 that were around us. And this person would come out and
17 they had what they called a "shot sheet." And it would,
18 they would fly the drones and get these pictures at
19 particular angles that we had prescribed and asked them
20 to get for us. And they would not do an assessment while
21 they were out there on site. They, the assessment was
22 then sent -- that information was entered, the photos
23 were taken back, and they were sent to our, what we call
24 our "drone inspection review team." And those guys would
25 make the determination.

26 Q. Now, you also said that the WSIP included

1 helicopter inspections; correct?

2 A. Correct.

3 Q. Were those helicopter inspections the same
4 inspections that were done pre Camp Fire?

5 A. No.

6 Q. How were the post Camp Fire WSIP helicopter
7 inspections different?

8 A. So pre Camp Fire, the helicopter inspections
9 were more looking for just deficiencies or -- you know,
10 could be anywhere from, you know, broken cross arm, tree
11 on line, mostly, you know, those type things. And a lot
12 of the patrols -- we either called them patrols, and some
13 of the times we used a helicopter inspection as well, but
14 those, you know, those were mostly looking for just
15 deficiencies.

16 Our helicopter program that we implemented in
17 WSIP was much along the lines the same as the drones. We
18 would take that -- we were generating information to get
19 back to our central team to be able to look at and make
20 the determination of the condition assessment from our,
21 basically our DIR Team, what we called our DIR Team,
22 which was a Drone Inspection Review Team.

23 One of the things that was very fascinating
24 about that was is we determined through looking at the,
25 these helicopter photos that we were not able to get to
26 inspect each and every one of our assets using the

1 helicopter. So we had to specialize and only use that
2 helicopter on certain types of structures. And those
3 structures were typically our single wood-pole
4 structures. We could not get, we could not get a --
5 well, what we deemed, my team deemed as a quality
6 inspection using a helicopter on towers, or anything that
7 where the insulators were hanging on, vertically under
8 the cross arm.

9 Q. You mentioned photographs from the helicopters?

10 A. Uh-huh.

11 Q. Did PG&E actually mount cameras on helicopters
12 to use to video inspections from their review?

13 A. Not the video; we were taking pictures.

14 Q. Okay.

15 A. So we did -- yeah, we, to answer your question,
16 yes, we had a camera, high speed camera, that was a
17 hundred megapixel camera that was mounted on a gimbal.
18 And the gimbal is a, lack of a better term, it's
19 basically a head that, free-moving head. And this camera
20 could, based on the way we had our -- I'm trying to think
21 of the best word. We could preset it to take pictures of
22 what -- the angle, the assets that we wanted to take a
23 picture of. Based on when the helicopter was flying, we
24 had some software that we had developed that was able to
25 help us take pictures of the assets that, and in a manner
26 in which we could do our inspections.

1 Q. So it sounds like the, that the WSIP inspection
2 program was keeping a lot of detailed data on each tower;
3 is that correct?

4 A. Absolutely.

5 Q. And using photographs to confirm that data?

6 A. Yes. And we had -- yes.

7 Q. So when you had guys doing ground inspections,
8 they were taking pictures of the tower from the ground;
9 right?

10 A. Uh-huh. Yes.

11 Q. And those photographs would be attached to the
12 report?

13 A. Yes.

14 Q. And that wasn't just if they found something
15 wrong, they were taking pictures of every tower as they
16 did their inspections; correct?

17 A. Yes.

18 Q. And, actually, they were taking pictures of
19 every leg of every tower; correct?

20 A. They were taking pictures of every item that
21 was on our, our -- we documented every condition that was
22 out there on --

23 Q. Right.

24 A. -- on the asset, yes.

25 Q. And same thing with the climbing inspections.

26 You were documenting the, all of the 47 -- or actually 28

1 visually inspectable items?

2 A. Correct. Now, even on the other ones, the
3 other items, all 47 had some form or fashion -- whether
4 we could do a complete inspection, we still took a
5 picture of it.

6 Q. Right.

7 A. So if it was a piece of hardware and we didn't
8 know if for some reason it might have had a little
9 surface rust, we didn't know exactly how to tell how much
10 life was left in there, so if we wanted to know that, we
11 had to pull it and do destructive testing. But we could
12 still document whether it had surface rust on it.

13 Q. And then climbing inspections, same thing,
14 they're taking pictures of each one of the 28 --

15 A. Yes.

16 Q. -- visually inspectable items?

17 A. Yes.

18 Q. And then the same with the aerial, whether it
19 was drone or helicopter, they were taking photographs of
20 all the visible, visually inspectable items?

21 A. Little different with the drones and the
22 helicopter in the fact that they were taking photos and
23 they were, and we were then, with a high-resolution
24 camera, we were able to take that and put it, it on a
25 high-definition screen, and we were able to zoom in to
26 what we wanted to see. So while we were, we were taking

1 pictures of these assets from different angles, we were
2 still taking a, typically the view was from out a ways
3 from the asset, but it had such great resolution that we
4 were able to zoom in and see some pretty incredible
5 things.

6 Q. So a couple more basic questions on this. Did
7 the assets have to be de-energized to allow for climbing
8 inspections?

9 A. No.

10 Q. Did the assets have to be de-energized to allow
11 for the drone inspections?

12 A. No.

13

14 (Grand Jury Exhibit 661 was introduced.)

15

16 Q. All right. You should also have in front of
17 you what's marked as -- re-marked as 661. So everybody's
18 going to have to stay awake today, because I used the
19 wrong numbering scheme on the PowerPoint. So we changed
20 640 on your screen to 661.

21 What is your Exhibit No. 640?

22 A. We would call it a ProntoForm. So it was an
23 inspection form that looks like for a detailed climbing
24 inspection for non 500 kV structure.

25 Q. Okay. And this one looks like this is a
26 structure on what line?

1 A. I'm looking for it, too, here.

2 Q. Looks like it's --

3 A. Drum-Rio Oso.

4 Q. Drum-Rio Oso, number 1 line, a 115 kV line?

5 A. Yes.

6 Q. So how many pages is this inspection report?

7 A. Looks like 28.

8 Q. And that's for one tower; correct?

9 A. That would be for one structure, that's

10 correct.

11 Q. One structure. And in this case, it was

12 structure number 005 over 063?

13 A. Yes.

14 Q. And walk us through Exhibit 661 -- 661, please.

15 A. Okay. I'm not sure I follow exactly what

16 you're looking for. Line by line?

17 Q. Well, kind of page by page let us know what

18 kind of information is in there.

19 A. So the first page has got some general

20 information about the, about the structure line. We got

21 -- you know, one of the key components on here was the

22 latitude-longitude. We had a GIS system so we could

23 actually find this asset in our GIS system. So we were

24 checking to make sure that these coordinates were

25 accurate as well. So this was a big -- that was a big

26 check for us. Anyway, the rest of it is general

1 information.

2 If you go to the second page, we did a
3 verification. That's the verification of the asset
4 number. So you can see -- do you want to -- are you
5 going to follow on this?

6 Q. No, we didn't put all 28 pages into the
7 PowerPoint.

8 A. So do you want me to go through each page?

9 Q. Just go through real quickly. Basically let me
10 see if I can do this, then it's about time to take a
11 break.

12 We talked about those 28 visually inspectable
13 items that were identified for each tower, the items that
14 if they failed they could be an ignition source. Are
15 each one of those covered in this inspection report?

16 A. They should be. I haven't gone all the way
17 through, but --

18 Q. Right.

19 A. That was the purpose of this ProntoForm, yes.

20 Q. And we don't really -- what was being inspected
21 there is not real important. It's just the fact of the
22 form?

23 A. Correct.

24 Q. Right. So this is the form that you guys built
25 sometime after the Camp Fire for the climbing
26 inspections; correct?

1 A. That is correct.

2 Q. Are there similar forms for helicopter
3 inspections and drone inspections?

4 A. So we have a form that's set up that is -- it
5 was not in Pronto, it was -- but there is a different
6 form for a helicopter and a drone inspection, yes. There
7 is an aerial inspection form.

8 Q. What is done with the information with those
9 forms and the information therein?

10 A. So as you go through this, and I -- one of the
11 examples is on page 5, it talks to, it goes, it details
12 condition assessment for everything. And as you go
13 through, you know, on page 5 it, there's a -- it said,
14 they ask about is the anchor rod, is there any damage,
15 you know, on the anchor rod. And we -- we checked yes.
16 Or the inspector checked yes. And at that point in time,
17 once that person checked yes, there was a -- it was said,
18 "Please go fill out a" -- or it says, "Create an LC
19 notification." So basically an LC is a line corrective
20 order.

21 So they asked -- we asked the guys to detail,
22 further detail, what they were finding on a notification
23 form about the, what they saw here that raised their
24 attention to the fact that they saw something. Then it
25 says, the comments underneath it, it says there was a
26 rusty anchor rod, and it was all below grade. So they

1 were concerned about the condition that was, of that
2 anchor rod.

3 So each time you marked a yes, we -- the QEW
4 was directed to an additional app. on the iPad that
5 basically said, hey, can you give me some more of the
6 information, and how bad do you think that this is? So
7 we were getting his take on the assessment of that
8 deficiency.

9 Q. So are there any protections built into this
10 reporting system to ensure that the qualified electrical
11 worker inspects all of the components?

12 A. Absolutely. So you must answer every one of
13 these questions, whether it was yes, no, or not
14 applicable. Had to be answered for each one of these
15 items or you cannot close the form or go to the next
16 item, go to the next asset.

17 Q. Is there a secondary protection also built into
18 that system?

19 A. We had -- well, our teams would review and make
20 sure we reviewed each ProntoForm as they came in.

21 Q. Right.

22 A. So if there was, if for some reason somebody
23 didn't, if it was the end of the day and they didn't
24 finish the last form, we could sit there and call them
25 out and say, "Hey, we noticed that this form didn't get
26 closed out properly, could you have the guy go back?"

1 Q. Right. I guess my question is in the form
2 itself, and maybe the question is bad. The form also
3 requires that the qualified electrical worker take
4 pictures of it --

5 A. Oh, I gotcha.

6 Q. -- and have it in form; is that correct?

7 A. Correct. Anything that he found, or the person
8 found, they had to take a picture of it as well.

9 Q. Well, not just found, just --

10 A. Yes.

11 Q. -- overall different places in the tower --

12 A. Correct.

13 Q. -- that required to take pictures; right?

14 A. Correct.

15 Q. So the information that's compiled in these
16 inspections, whether they be climbing inspections, aerial
17 inspections, drone inspections, what is done with all of
18 that information?

19 A. So all this information is then compiled and it
20 is sent back from the ground, this is a ground inspection
21 form, so the ground inspection form would then be sent
22 into our, what we called our CIR Team, which is C-I-R-T,
23 which was Centralized Inspection Review Team. And that
24 team would take a look at each one of the conditions that
25 was noted on this form.

26 Q. Now --

1 A. And they would do a, they would do a next
2 review.

3 And that team -- do you want to talk about the
4 team?

5 Q. We're going to get to that in just a second.

6 Now, you said there's a similar form for the
7 drone inspections; correct?

8 A. That's correct.

9 Q. And there's a similar form for the helicopter
10 inspections?

11 A. That's correct.

12 Q. Are there similar teams, like CIRT or DIRT, you
13 already talked about DIRT a little bit, but are there
14 similar teams like CIRT to go through those inspection
15 forms?

16 A. So DIRT, there was no in-field inspection done
17 with our drones. All they did was take photos. And we
18 ensured that the quality of the photos were correct. And
19 that was the only thing that that team did when they were
20 out in the field. And that information was sent, those
21 photos were sent back to our drone inspection review
22 team, and those guys did an assessment based on the
23 photos that came in.

24 Q. Okay. At -- who are the people that make up
25 these, this CIRT and the DIR team?

26 A. Our CIRT, they were subject matters experts.

1 And they could be engineers. And they were typically
2 engineers of all disciplines. They were qualified
3 electrical workers. They were people that had been in
4 the industry for long periods of time. They all, we had
5 all -- they were typically people we had brought in from
6 a lot of different places. They weren't necessarily --
7 they were -- a small piece of those were PG&E employees,
8 but a vast majority of those folks were people that we
9 brought in from other places that had experience, a lot
10 of experience, in looking at equipment. And they were
11 considered, you know, experts in their field.

12 Q. You said the WSIP was charged with inspecting
13 over 50,000 assets in tier 2 and tier 3 fire threat
14 areas; correct?

15 A. Correct.

16 Q. How long did it take the WSIP to do those
17 inspections?

18 A. So we had substantially complete in around May
19 1, May 1 of 20 -- this year -- 2019. And what I mean by
20 that, that was the ones we could get to. And there was
21 -- at the time there was still snow, there was still
22 impassable roads, there were still people that -- or
23 areas that we couldn't get to, some of the military
24 bases, some of the private land owners. We were chasing
25 down access to that. So we got roughly 46,000 of those
26 inspections done by May 1. And then we're down to about

1 less than 200 aerial inspections that we were doing. And
2 those are at Vandenberg Air Force Base and Beale Air
3 Force Base. And we're trying to do aerial inspections
4 there. And it -- one of the issues we have with getting
5 on site is our vendors that we've been using for our
6 drones have changed drones. And they, they're
7 manufactured in China, and our military doesn't want
8 Chinese drones on their facilities. So we're dealing
9 with that right now. But we've come up with a way to get
10 that done.

11 Q. So basically in six months, using these
12 enhanced inspection methods, you were able to inspect
13 approximately 46,000 transmission assets?

14 A. That's correct.

15 Q. All of these inspection methods that were used
16 are things that were available prior to the Camp Fire;
17 correct?

18 A. In limited capacity, yes. We had certain
19 things that were not done had been done before. I mean,
20 maybe not with the rigor that has been, that we did them
21 with.

22 Q. Right. Ground inspections. You had ground
23 inspections before the Camp Fire?

24 A. Correct.

25 Q. But not to the detail that you did after the
26 Camp Fire; correct?

1 A. I would agree to that, yes.

2 Q. You didn't use climbing inspections before the
3 Camp Fire?

4 A. We did at times.

5 Q. Okay. Are you aware of the last time there was
6 a climbing inspection on the Caribou-Palermo line?

7 A. I am not.

8 Q. Aerial inspections. Let's start with the
9 helicopters. Was the photography technology used to
10 document the helicopter inspections available prior to
11 the Camp Fire?

12 A. The technology, the -- if -- I'm trying to
13 understand the -- there were cameras and there were
14 helicopters before --

15 Q. Right.

16 A. -- the Camp Fire?

17 Q. And there were companies that were using
18 helicopters and cameras mounted to helicopters for
19 transmission line inspections prior to November 8th,
20 2018; correct?

21 A. Yes.

22 Q. Now, as you explained, and I want to give you a
23 chance to explain it, you guys came up with your own
24 program and you created some new technology?

25 A. That's correct.

26 Q. To deal with the WSIP; correct?

1 A. That's correct.

2 Q. All right. You guys enhanced or improved an
3 existing technology as part of WSIP; right?

4 A. Correct.

5 Q. But the technology itself was available before
6 November 8, 2018?

7 A. Yeah, there was -- it was limited, but yeah,
8 there were. It was limited, but that -- yes, there was.
9 There were people that were using helicopters to do
10 inspections in helicopters.

11 Q. And even more so to document inspections;
12 correct?

13 A. I don't know what the documentation was, but
14 they were taking photos, yes.

15 Q. And same with ground inspections; so it's
16 possible to take photographs to document ground
17 inspections?

18 A. Yes.

19 Q. And drones, drones weren't invented on November
20 9th; correct?

21 A. That's correct.

22 Q. There was drone technology well before November
23 9th?

24 A. That is correct.

25 Q. And there were companies using drones to
26 inspect transmission lines well before November 9th?

1 A. Yes, in limited capacity, very limited
2 capacity.
3 Q. So these are all methods of inspection that
4 were available before the Camp Fire; correct?
5 A. But not with the rigor that we put into this.
6 Q. Right.
7 A. And the quality. The quality and the rigor did
8 not exist before, before the Camp Fire.
9 Q. But it could have existed had you wanted it to?
10 A. I can't answer -- I mean, I want to say yes,
11 okay? But I can't answer that fully as far as I'm not
12 sure when all these technologies came into existence.
13 Q. Right. But, I mean, somebody like Australian,
14 Australian companies have been using helicopter cameras
15 mounted on helicopters for many years to inspect
16 transmission lines; correct?
17 A. Correct. But not with the rigor and quality --
18 Q. Right.
19 A. -- that we, we instituted.
20 Q. But the basic technology was available. Your
21 improvements you could have made prior to the Camp Fire;
22 correct?
23 A. I mean, there wasn't anything preventing us
24 from -- to use helicopters and fix and get the additional
25 information out of the cameras, that's correct.
26 MR. NOEL: I'd say this is a good point to take

1 the break.

2 GRAND JURY FOREPERSON: Okay.

3 MR. NOEL: We'll try and come back and finish
4 him up real quick.

5 So she's going to give you an admonishment; is
6 that correct? And then we'll get a 15-minute break.

7 GRAND JURY FOREPERSON: Mr. Wright, you are
8 admonished not to discuss or disclose at any time outside
9 of this jury room the questions that have been asked of
10 you or your answers until authorized by this Grand Jury
11 or the Court. A violation of these instructions on your
12 part may be the basis for a charge against you of
13 contempt of court. This does not preclude you from
14 discussing your legal rights with your own attorney.

15 Mr. Wright, what I have just said is a warning
16 not to discuss this case with anyone except the Court,
17 your lawyer, or the district attorney. Do you have any
18 questions?

19 THE WITNESS: No, ma'am.

20 GRAND JURY FOREPERSON: Thank you.

21 Thank you.

22 THE WITNESS: Thank you.

23 (Break taken.)

24 GRAND JURY FOREPERSON: We're ready to proceed.

25 All members of the Grand Jury are present,
26 ready to proceed.

1 Q. (By MR. NOEL) Now, there's two stacks of
2 exhibits in front of you. We're -- I'm going to be going
3 back and forth between the two, try and get through them
4 pretty quick.

5 You said that as part of WSIP that you're going
6 back and doing these enhanced inspections, one of the
7 focuses was on the cold end attachment points; right?
8 The hooks and the holes?

9 A. Yes.

10

11 (Grand Jury Exhibit 183 was introduced.)

12

13 Q. All right. You have in front of you 183,
14 what's marked as 183?

15 A. Yes.

16 Q. Do you see that?

17 A. Yes.

18 Q. Is this what we're talking about, focusing on
19 the hooks?

20 A. Yes. We documented -- on our, our own
21 inspections, we documented every hot and cold connection.

22

23 (Grand Jury Exhibit 191 was introduced.)

24

25 Q. Okay. So -- and then moving on to 191, it
26 should be the next in that stack there on the left.

1 A. Yes.

2 Q. Same thing; another picture, hook and the hole?

3 A. Absolutely, yes.

4 Q. The cold end attachment point? Are you saying

5 that this kind of stuff, this kind of view was not

6 possible prior to the WSIP?

7 A. It's much easier to do through the drone

8 program.

9 Q. But the technology was available that you could

10 have been inspecting the cold end attachment points

11 before that; is that correct?

12 A. We did, we did not -- we were checking it, but

13 we did not have photos to document it, that's correct,

14 before.

15 Q. But you were supposed to be checking this?

16 A. Yes.

17 Q. So the troublemen who were doing the

18 inspections and patrols should have been looking at the

19 cold end attachment points prior to --

20 A. If it was on their check list, this is -- then

21 they were supposed to be looking at this.

22

23 (Grand Jury Exhibit 192 was introduced.)

24

25 Q. All right. Let's move on to 196 -- I'm sorry,

26 192.

1 A. Okay.

2 Q. Again, cold end attachment point?

3 A. Yes.

4 Q. This is another WSIP photograph?

5 A. It looks like it came out of ProntoForm. It's

6 got the ProntoForm stamp on the bottom.

7 Q. It's got the PG&E Bates stamp number on the

8 bottom?

9 A. Yes.

10

11 (Grand Jury Exhibit 193 was introduced.)

12

13 Q. All right. 193.

14 A. Okay.

15 Q. Another picture of a cold end attachment point?

16 A. Yes.

17 Q. This is another WSIP photograph?

18 A. I don't see a date. It says 2019. I'm

19 assuming it is. Okay. I don't have anything on here

20 that says what date it was taken.

21 Q. Okay. But this, again, is a PG&E Bates stamp

22 number, so -- the Bates stamp photograph, so it came from

23 PG&E?

24 A. Yes, it would be from, it would be from us, but

25 I don't know what the date was for this.

26 Q. All right. 254 is already in evidence. Same

1 thing, more pictures of cold end attachment points;
2 correct?

3 A. Yes.

4 Q. These are PG&E photographs?

5 A. It says PG&E at the bottom, so I'm, I would say
6 that that Bates number, that was our number, yes.

7

8 (Grand Jury Exhibit 255 was introduced.)

9

10 Q. 255, same question: This is a PG&E photograph,
11 probably the WSIP?

12 A. I guess, yeah. It's the same answer, I mean.

13 Q. All right. Let's move on, 642, really quickly.

14 A. Okay.

15 Q. This is, again, a photograph with the PG&E
16 Bates stamp PG&E camp BC0000024787. What's wrong with
17 this picture?

18 A. This is on the other stack. Okay. Got it.

19 Q. Sorry if I didn't -- I'm sorry, 662 -- 663.

20 A. Looks like a bent member.

21 Q. Is there anything else wrong with this picture?

22 A. And looks like the anchor has got some rocks on
23 top of it, or the foundation, yes.

24 Q. So you've got a bent member on there and the
25 foundation is covered with rocks; correct?

26 A. That's what it looks like, yes.

1 Q. Why would this not be found prior to the WSIP?
2 A. I don't know.
3 Q. Did we need enhanced technology to find these
4 issues?
5 A. I don't know. I mean, doesn't look like it.
6
7 (Grand Jury Exhibit 664 was introduced.)
8
9 Q. Okay. Let's go on to 664. What's wrong with
10 this picture?
11 A. Looks like we have a bent member, and then we
12 have some, looks like dirt or rock on top of a
13 foundation.
14 Q. Okay. So do we need enhanced technologies to
15 find these issues for this tower?
16 A. I wouldn't think so.
17
18 (Grand Jury Exhibit 665 was introduced.)
19
20 Q. Okay. All right. And this, 665. We'll skip
21 through, withdraw that.
22 666, we'll withdraw.
23 I thought -- okay. So let's go back to 665.
24 Do you see a problem with that tower?
25 A. It's a slight bent member, yes.
26 Q. A bent member?

1 A. Uh-huh.

2 Q. Is that yes?

3 A. Yes.

4 Q. Okay. So that's a problem in a tower; correct?

5 A. Can be. We have, we have -- these towers are
6 designed that such that there is, there's not supposed to
7 be a single failure point, so --

8

9 (Grand Jury Exhibit 666 was introduced.)

10

11 Q. Okay. So let's do 666. See a problem with
12 that photograph, the tower in this photograph?

13 A. I'm trying to look here. Looks like there's
14 another bent member, but that is, that's not a load
15 bearing member, so it's just a, it's just for stability.
16 So it's not -- with not being a load member, load bearing
17 member, it's not as critical to the tower.

18 Q. You said that's just for stability; right?

19 A. It's for additional stability, that's correct.
20 And those members are redundant. There's multiple
21 members like that --

22 Q. Right.

23 A. -- on the tower.

24 Q. But this one's bent. And that's something that
25 should have been --

26 A. Typically, we would put a notification in to

1 document that that is there, yes, correct.

2

3 (Grand Jury Exhibit 670 was introduced.)

4

5 Q. All right. Let's -- we'll withdraw 667, 668,
6 and 669, and go on to 670. Do you see a problem in this
7 picture?

8 A. That's, those are stability, those are bent
9 stability members for the -- looks like a insulator, a
10 drop down insulator, bottom end insulator.

11 Q. So is this a problem that should have been
12 noted during an inspection or patrol prior to the WSIP?

13 A. Well, there's -- we would -- you should be able
14 to see this, but also, this is on the underside of -- the
15 conductor's actually running up the top of this insulator
16 and there's another member that's holding it from the
17 top. So this would be a, these are just, just to prevent
18 that, that insulator, for that cable from swinging.

19 Q. Right.

20 A. So it's not, there's no load bearing associated
21 with that.

22 Q. That's something that was definitely noted in
23 WSIP inspections; correct?

24 A. We did note it in the WSIP inspection. I don't
25 know what notification it was, priority it was given, but
26 -- because I don't have that documentation here.

1 Q. Right.

2 A. But we did put some form of a notification in
3 on that, yes.

4 Q. And you should have 464 -- I'm sorry, not 464.
5 I keep forgetting. Should be -- this is 464, previous
6 exhibit, should have it in one of those stacks up there.
7 You can just look at it on the board if you want to.

8 A. Okay.

9 Q. Do you know what this form is?

10 A. Looks like, looks like a notification on
11 Caribou-Palermo 27 over 21 --

12 Q. Okay.

13 A. -- 221.

14 Q. In general, when you say "notification," this
15 is the kind of form that's filled out when a problem is
16 found on a, on an asset; correct?

17 A. Yes.

18 Q. And when -- you've alluded over and over again
19 to notifications and notifications. This is what you're
20 talking about, is this form right here?

21 A. Yes. That would be a form and a document what,
22 what was the, what item was found on that tower.

23 Q. All right. Going back to the climbing
24 inspection form that we went over before and looked in a
25 little bit more depth, you said if the inspector checks a
26 yes on any of those boxes that will all of a sudden

1 prompt them to do a notification; correct?

2 A. Correct.

3 Q. And this is the notification that it would have
4 to be filled out?

5 A. That would be, the information on there, that
6 would be -- yes. To answer your question, yes.

7 Q. Right.

8 A. That's an example of a notification that would
9 be filled out; correct.

10 Q. And these notifications then go up to asset
11 management for a decision on repair, replace?

12 A. Well, they go -- first off, they would, this
13 information would come off and it would go to our CIR
14 Team. And our CIR Team would do an additional review.
15 And at that point in time, the notification would either
16 be, would be sent to the field crews to be worked, or if
17 it was determined that that was, you know, for some
18 reason it wasn't needed for what have you, we would
19 cancel that notification, that's correct. But more than
20 likely this would end up with our execution folks to be
21 able to go out and correct this.

22 Q. And this is a pre Camp Fire notification;
23 correct?

24 A. Looks -- I'm seeing the required end date of
25 9-11-19. So it --

26 Q. Did you get the date down here in the long

1 text, 9/13/18?

2 A. 9/13/18.

3 Q. All right. And what's the condition that this
4 notification is reporting?

5 A. That's the hold down. It's a hold down
6 insulator string that's come loose.

7

8 (Grand Jury Exhibit 466 was introduced.)

9

10 Q. Okay. So go to Exhibit 466. Do you see an
11 insulator string, hold down insulator string in this
12 photograph?

13 A. Yes.

14 Q. And it's not connected where it's supposed to
15 be?

16 A. That would be correct.

17 Q. Now, when we were talking earlier, when we were
18 going through Exhibit 670, you were talking about that
19 the arm there that we're looking at is the hold down arm
20 that holds the insulator in place from the bottom;
21 correct?

22 A. Correct. But it just holds it in one place.
23 It doesn't -- it's not a load bearing --

24 Q. Right.

25 A. -- member.

26 Q. And here we have the same thing, similar

1 configuration; correct?

2 A. That would be correct.

3 Q. Okay. So here's another photograph of that

4 that's marked as 195. Tell me what problems you see in

5 this photograph.

6 A. The connection has come apart.

7 Q. Okay. Anything else?

8 A. And it looks like we got a bent arm there as

9 far as the one that's holding, it would be stabilizing

10 that --

11 Q. Right.

12 A. -- insulator string.

13 Q. We have a couple bent arms. We have this arm

14 here that's bent pretty severely; correct?

15 A. Well, I'm calling that whole thing an arm, is

16 what I'm calling it, because typically it's an arm and

17 then there are support structures there. So you've got

18 different members that are bent, but overall, the arm is

19 drooping. So that's how I was distinguishing it.

20 Q. Okay. Okay. So why would something like this

21 not be noted prior to the Camp Fire?

22 A. If this is structure -- I believe that this is

23 structure, what --

24 Q. 221.

25 A. 221. I think there is a notification on this.

26 Q. There is for the -- we just looked at it.

1 A. Yeah, but I think there was one done on the, in
2 September as well.

3 Q. If there is, could you please find it for us?
4 And it's not going to be in there. You're going to have
5 to dig in the records and provide it to us.

6 A. Sure.

7 Q. Because that has not been provided at this
8 point.

9 A. Okay.

10 Q. Then here's another look. See any problems
11 with this picture?

12 A. Yeah. This arm has got some, couple of the
13 members are bent. The arm looks like it's got some
14 damage to it.

15
16 (Grand Jury Exhibit 671 was introduced.)
17

18 Q. All right. Let's move on. 6, 672. And let's
19 go on to 6 -- no, 671, withdrawing 672, we have up there
20 on the board. You have in front of you?

21 A. Yeah.

22 Q. And what do you see with this issue?

23 A. Looks like a, got a little -- the cable looks
24 like it is coming apart a little bit.

25 Q. Okay. The caption on this says, "Tower 94 wire
26 damaged"; correct?

1 A. That's correct.

2 Q. So that's something that should be caught in an
3 inspection or patrol; correct?

4 A. Typically, typically it would. But you also
5 got to remember that some of this is being hidden from
6 the way the insulator is and how it's can obstruct some
7 of the view as well.

8 Q. Of what good is an inspection or patrol
9 procedure if it's not designed to find problems like
10 this?

11 A. Yeah, I can't answer that. I guess, you know,
12 going -- my function was to go forward and find these
13 things. And so when I put it, my, my team to get put
14 together to find these things, and we went out and
15 identified and put a process together to help us get
16 better looks at our, our equipment. And this is -- I
17 don't have a hundred percent confidence because this
18 looks like a drone photo that was able to sit there and
19 give us that view, a much closer and much better view.

20 Q. So you're almost completely done with all of
21 the WSIP inspections; correct?

22 A. Yes.

23 Q. The only ones that are still outstanding are on
24 the two air force bases?

25 A. That's correct.

26 Q. Where -- so you've done over 50,000 of WSIP

1 inspections in the last eleven months?

2 A. Correct.

3 Q. How many issues, previously unknown,
4 undocumented, unfound issues, did you find, or did the
5 WSIP find in the PG&E assets throughout the tier 2 and
6 tier 3 fire areas?

7 A. We found -- make sure I -- so I don't know
8 exactly how many -- I didn't count up the ones that were
9 before, that were in the system before.

10 Q. Right.

11 A. But the ones coming out, the ones that we
12 found, and they were in varying degrees of prioritization
13 or severity, but we found somewhere in the neighborhood
14 of about 60,000 items that needed some form of attention.

15 Q. How many?

16 A. Sixty thousand.

17 Q. Sixty.

18 A. And now I will clarify that a little bit with
19 the fact that a lot of them were pole numbers --

20 Q. Right.

21 A. -- high voltage signs, markers, things like
22 that. And it was a large, I would say two thirds of them
23 were probably in that, in that range.

24 Q. And that's going to be my next question.

25 A. Yeah.

26 Q. That includes things like high voltage signs

1 missing?

2 A. Correct.

3 Q. And aerial markers missing for planes?

4 A. I believe. I don't know. There will be some
5 of those. There would be some that could be missing or
6 could have been faded.

7 Q. That also includes things like bent members and
8 bent arms?

9 A. Some of them could have been, yes.

10 Q. And tower foundations that were buried?

11 A. Yes.

12 Q. And some of the different things that we've
13 looked at and some illustrated in some of these
14 photographs here today; right?

15 A. Correct.

16 Q. Those are things that you need to have enhanced
17 inspection procedures for; right?

18 A. Some of them you do have to have enhanced
19 inspections for, some of the things that we found.

20 Q. Right. Some of the things you do. But a great
21 many of them you don't need, you don't need a drone to
22 tell you if the high voltage sign is missing; correct?

23 A. That's correct.

24 Q. Another area that we didn't go into where there
25 were things missing was climbing guards?

26 A. Correct.

1 Q. Those are things that you don't need to have
2 these enhanced inspection techniques to see?

3 A. That would be correct.

4 Q. But yet they weren't found?

5 A. Well, in some areas they were. And, like I
6 said, I don't know what was in the system before. I
7 don't have, I don't, I don't have the documents that say,
8 hey, what was in there pre Camp Fire, but then coming out
9 of the Camp Fire, we not, we did not use any prerecords
10 for when -- I call them prerecords, pre Camp Fire
11 documents -- to offset any notifications that we already
12 had in the system. We put the, we put the modifications
13 in the system as we found them in WSIP. So everything
14 was documented regardless of what it was.

15 Q. Okay.

16 A. And that was, that was the fundamental premise
17 of this; we wanted a safe -- based on safety, quality,
18 and rigor. We wanted to find all of these items.

19 Q. So why weren't these types of inspections
20 happening before the Camp Fire?

21 A. I don't know. I can -- like I said, I can talk
22 to what was going on with WSIP.

23 MR. NOEL: Anything?

24 MS. DUPRE-TOKOS: Not at this time.

25 MR. NOEL: I'm through. The jurors can ask,
26 can submit questions to be asked to you, and if they have

1 any questions, I will ask them in just a second.

2 Since she can't come up to you, I'm going to
3 review them real quick with her.

4 (Counsel and Grand Jury Foreperson confer.)

5 MR. NOEL: These are some questions that have
6 been reviewed by myself and Ms. Dupre Tokos and the
7 foreperson.

8 THE WITNESS: Okay.

9 MR. NOEL: I'll read them to you.

10 Q. (By MR. NOEL) What type of training have you
11 had with PG&E and what type of training do your employees
12 have in your department?

13 A. So what as far as my training is, I've been,
14 I've been dealing with substation and maintenance and
15 utility business for about almost 30 years. I've had --
16 you know, in my career, I've led maintenance teams, I've
17 led construction teams, I've led engineering teams, and
18 I've had -- you know, so I've seen a lot. I've performed
19 a lot of maintenance and I've seen equipment assessments
20 over my career. My -- while most of it was not dealing
21 with transmission lines, it was dealing with failures.
22 You know, failures and maintenance and things along those
23 lines and problem solving.

24 My team continues -- and to speak for my team,
25 we have, we have brought in industry experts that have
26 quite a resume as far as their qualifications, meaning

1 from some of the top engineering firms in the nation we
2 brought in.

3 Q. You're talking about post Camp Fire?

4 A. Post Camp Fire. That's my team. And so I
5 assumed that was what the question was, my team; correct?

6 Q. Right.

7 A. So post Camp Fire we brought in people from
8 across the US that were industry leaders. Some of them
9 were former utility workers from other utilities, some of
10 them were post -- or previous employees from PG&E, a lot
11 of them were previous engineers, subject matter experts
12 from, from that. We -- and then, as a continuous
13 improvement, we do have, we do have ways to continue to
14 look at, periodic reviews of the decisions we've made,
15 and to take a look at, you know, how could we -- if a
16 scenario comes up and we have differing opinions, we will
17 always bring in somebody that could have that special
18 expertise as well. And we would sit there and develop a
19 process to deal with those things going forward, and even
20 back up to could involve changing some of the decisions
21 that we made in the past as well. And the past being the
22 recent past as part of WSIP program.

23 Q. All right. To your knowledge, do a lineman and
24 troubleman get training on the electrical towers before
25 ever working on them?

26 A. Yes. So our troublemen and linemen, they go

1 through the apprenticeship, the apprenticeship program at
2 PG&E. We have an apprentice program. It's a five-year
3 or six-year program. And it's sponsored by, joint
4 sponsored by the IBEW and PG&E. It is a rigorous
5 program. And it requires them, before they are turned
6 loose to do inspections, they are, they have to finish
7 this whole program, this whole apprentice program, and
8 become a journeyman. So there's a lot of training that
9 goes into that. So it's approximately six years for a
10 journeyman lineman. And then for a troubleman, it can be
11 an additional -- a troubleman is actually an advancement,
12 just above a journeyman lineman. So he's going to also
13 have several years of experience on top of that.

14 Q. So several years experience doing what?

15 A. Doing electrical work, doing electric line
16 work, doing -- could be -- most of it could be
17 maintenance type of work, or work, you know -- you're
18 doing utility work. I guess that's the way to put it.

19 Q. Will drones be used more than helicopters now?

20 A. So our system, we will be using drones more on
21 our system than we've been using them in the past. So
22 previous to WSIP it was very minimal, very, very minimal.
23 Going forward, we feel like we're going to be using
24 drones. Some -- there will be a program used for drones.
25 I don't know exactly the numbers, the amounts, but we
26 will be doing, we will be using drones. And we will also

1 be using helicopters. Helicopters are going to be a good
2 tool for us. And we've identified the areas in which it
3 can provide as good of an inspection as a drone. So
4 we're going to be using helicopters as well. But to say
5 it's going to be more than a helicopter, I can't say that
6 right now.

7 Q. Prior to 2018, November 8th, were you aware of
8 the general age of the Caribou-Palermo transmission
9 equipment?

10 A. I mean, in general, yes. I mean, I was, but it
11 really wasn't my -- I didn't have any direct dealings
12 with the line itself other than I did have some storm
13 restoration stuff that I had participated in up this way
14 dealing with the Caribou-Palermo line. I knew that there
15 was -- I didn't know the exact age, but I did know that
16 it was one of our older assets.

17 Q. In your understanding, what exactly defines a
18 qualified electric worker?

19 A. So a qualified -- so we, at PG&E we've got a
20 qualified electrical worker is somebody that's been
21 working on our system for more than two years; okay? So
22 they come in, and they, and they've gone through, and
23 most of it's OJT work, so on-the-job training. But
24 they've got -- been on our system and have worked under
25 our system for over two years. Most of these guys have
26 been, and mostly a qualified electrical worker is a

1 person that has good awareness of the hazards associated
2 with the job and understands our grounding practices.
3 And so that's, that basically sums up what I understand.

4 Q. Prior to November 8th, '18, were troublemen
5 required to be qualified electrical workers?

6 A. Absolutely.

7 Q. What are the qualifications for a journeyman's
8 license given by, I think should be the IBEW?

9 A. Yeah, the IBEW is, like I said, it's a joint
10 program. It's a six-year joint program that -- let me
11 back up. So there's -- a journeyman lineman is, a
12 journeyman lineman is a six-year program. And there's a
13 journeyman electrician that we have that is a five-year
14 program. So we have -- and the difference is when you're
15 doing the lineman, you learn some additional skills about
16 how to deal with certain hazards as you're going up,
17 climbing poles and towers and things like that. So there
18 is a five -- it's a six-year program for linemen, and
19 it's a five-year program for electricians.

20 Q. What is the IBEW?

21 A. Oh, International Brotherhood of Electrical
22 Workers. So it's the union, it's the union that our
23 linemen belong to, the bargaining unit that they belong
24 to.

25 Q. If the ProntoForms could be instituted within
26 just two to three weeks after the fire on 11/8/18, could

1 it not have been instituted prior to that date?

2 A. Well, we did, so we did have a form that we
3 used prior to the November 8th. We had a form that was
4 used by our, our linemen or our inspectors when they went
5 out. They had a, it was a form that listed all the
6 components on the, on the pole that they went and they,
7 and as they inspected it or looked at it, they checked it
8 off. So they were able to go down, if it said insulator,
9 they could, they would look at the insulator, review it,
10 and then check it off and then go to the next item and
11 look at that.

12 Q. So where exactly would we find this form?

13 A. I know for a fact it would be in the
14 maintenance offices. And there is -- and we typically
15 have, we could, they would be on file with -- you know,
16 I'm not a hundred percent certain, and I'd rather get it
17 right and tell you -- I know we can get it, we can
18 provide that, they are available, and they're already in
19 our -- I think we scan them and put them in our
20 maintenance records on NSAP. But I can tell you that we
21 do put them in the maintenance headquarters. So our
22 maintenance headquarters has those. And they're in a
23 file system based on the line that they're a record of.
24 So we do have those.

25 Q. So these jurors have subpoenaed from PG&E all
26 of the inspection and maintenance records for the

1 Caribou-Palermo that exist.

2 A. Okay.

3 Q. They've seen records all the way back to 2001,
4 and not a single one of these checklists that you're
5 talking about. So --

6 A. I want to --

7 Q. -- I'm not sure where to find them.

8 A. I want to make sure we're talking about the
9 same item as well --

10 Q. Yes.

11 A. -- okay? I definitely would work with you to
12 help make sure you have the right document.

13 Q. Right.

14 A. We may be calling it the same thing.

15 Q. There are climbing inspection forms --

16 A. Okay. That could be.

17 Q. -- that give out a checklist of what to look
18 for.

19 A. That could very well be. I believe that would
20 be the proper name for the form.

21 Q. Okay. So you're talking about the climbing
22 inspection forms?

23 A. Correct. But not, not the ones that was
24 Pronto.

25 Q. Right. Right. So those would only be
26 available for lines that have been climbed in the last 20

1 years; correct?

2 A. The climbing inspection form, yes.

3 Q. Right.

4 A. But there would be -- we could do a variation
5 of those based on ground inspections or -- based on
6 ground inspections.

7 Q. But there's no checklist, component checklist,
8 for ground inspections prior to November 8th, 2018?

9 A. Not to my knowledge.

10 Q. Okay. So make sure I got that right.

11 A. I want to apologize for creating that
12 confusion. There is a, there is a pre WSIP climbing
13 checklist, or climbing -- yeah.

14 Q. All right. Is it fair to say that PG&E Risk
15 Assessment Analytics changed substantially after 11/8?

16 A. Absolutely.

17 Q. And then does there need to be training, does
18 there need to be training to identify components that are
19 cracked, bent, broken, or missing?

20 A. I think -- I don't know if we need training. I
21 think what we've done now is we've got additional eyes on
22 this. So one of the great enhancements about the
23 inspections that we're doing now today is not only do I
24 field this, do I get this information coming in from the
25 field and do I get these great pictures, I've got
26 multiple sets of eyes looking at this, each and every,

1 each and every asset. So as this stuff comes in, if for
2 some reason somebody has work to, you know, not identify
3 something, we've got methods to check that and make sure
4 that we catch these, each piece of -- or each one of
5 these deficiencies and create that notification and
6 create that work order to get it taken care of. So the
7 safety, quality, and rigor that's in this program is
8 unprecedented in the industry right now.

9 Q. Let me see if I can sum it up real quick. It's
10 been said that, that pre Camp Fire the inspection policy
11 was if it's hanging, it's good. Based upon your, your
12 experience running the WSIP and evaluating the results
13 from inspections throughout the PG&E service area, how
14 would you respond to that statement?

15 A. Well, until today, I have not heard, heard that
16 quote. So I would, I would say that we, our program that
17 we had in pre WSIP was not unlike a lot of the utilities
18 that are out there today in other parts of the country.
19 The game changer was we got some conditions and
20 consequences associated where our assets are located that
21 we had to do something better. And that's what we've
22 done.

23 Q. How many other utilities cause massive fires
24 every year?

25 A. I mean, I can't answer that question. I
26 mean --

1 Q. How many other utilities have wind?

2 A. A lot of them. Most of them.

3 Q. How many other utilities have drought, deal
4 with drought?

5 A. I can't answer that.

6 MR. NOEL: All right. Madam Foreperson is
7 going to have an admonishment for you. Thank you very
8 much for subjecting yourself to this all day.

9 GRAND JURY FOREPERSON: Mr. Wright, you are
10 admonished not to discuss or disclose at any time outside
11 of this jury room the questions that have been asked of
12 you or your answers until authorized by the Grand Jury or
13 the Court. A violation of these instructions on your
14 part may be the basis for a charge against you of
15 contempt of court. This does not preclude you from
16 discussing your legal rights with your own attorney.

17 Mr. Wright, what I have just said is a warning
18 not to discuss this case with anyone except the Court,
19 your lawyer, or the district attorney. Any questions?

20 THE WITNESS: No, ma'am.

21 GRAND JURY FOREPERSON: Thank you for your time
22 today.

23 THE WITNESS: Thank you.

24 (Pause in proceeding.)

25 MR. NOEL: Please remain standing so she can
26 swear you.

1 GRAND JURY FOREPERSON: I'm sorry, I didn't see
2 you come in.

3 Please raise your right hand.

4
5 JOSCELYN WONG

6 having been called as a witness in
7 the matter now pending, having been first
8 duly sworn, testifies as follows:

9
10 THE WITNESS: Yes.

11 GRAND JURY FOREPERSON: Thank you. Have a
12 seat, please.

13
14 EXAMINATION

15
16 BY MR. NOEL

17 Q. Ms. Wong, for the record, can you please state
18 your full name, spell your last name. Probably spell
19 your first name, too, because it's a little unusual.

20 A. Unique. Full name is Joscelyn Marie Wong,
21 J-O-S-C-E-L-Y-N. Last name Wong, W-O-N-G.

22 Q. Ms. Wong, are you employed?

23 A. Yes.

24 Q. By whom?

25 A. Pacific Gas & Electric Company.

26 Q. How long have you been employed by PG&E?

1 A. Since 2012; 17 years.

2 Q. I'm sorry?

3 A. 2002. Can't do math. I'm sorry, long day.

4 Q. All right. What kind of educational background
5 do you have that qualifies you for PG&E?

6 A. So I have a bachelor's of science in electrical
7 engineering from Cal Poly, San Luis Obispo. That's it.

8 Q. Okay. You said Cal Poly, San Luis Obispo?

9 A. Yes. Correct.

10 Q. I spend way too much of my money at that
11 school.

12 All right. So what do you do for PG&E?

13 A. I'm currently the Manager of Strategic
14 Governance.

15 Q. What is Strategic Governance?

16 A. Strategic Governance handles all the
17 compliance, governance, regulatory rate case filings for
18 Transmission Asset Management within PG&E.

19 Q. All right. I'm going to pull this microphone
20 up to you a little bit closer. You can sit back and be
21 comfortable. We can pull the microphone, so we can move
22 it. So you get comfortable. And we need to be able to
23 hear you.

24 All right. How long have you been manager of
25 Strategic Governance?

26 A. Since mid 2018.

1 Q. What did you do before Strategic Governance?

2 A. Starting in 2013, I was the manager for
3 Transmission Asset Development, which was responsible for
4 transmission projects.

5 Q. How -- what do you mean by transmission
6 projects?

7 A. These would be projects to repair or upgrade
8 transmission lines or substations.

9 Q. How are you responsible for those?

10 A. So my team acted as what we called the "Project
11 Sponsor Representatives" that work with the project team
12 to actually implement the project.

13 Q. Prior to that what did you do?

14 A. Prior to that, for 2012, the year of 2012, I
15 was the manager for Transmission Line and Substation
16 Asset Strategy.

17 Q. What is that position?

18 A. That position is responsible for developing the
19 over all strategies for how we want to handle our
20 transmission line substation assets.

21

22 (Grand Jury Exhibit 674 was introduced.)

23

24 Q. All right. So you should have in front of you
25 exhibit -- again, we need to change these, because I
26 screwed up the numbering system. This should be Exhibit

1 674. Do you see Exhibit 674?

2 A. Yes, I do.

3 Q. What is Exhibit 674?

4 A. This is an organizational chart as of October

5 of 2018.

6 Q. All right. Now, at the top we have somebody

7 named Tom Wright?

8 A. Yes.

9 Q. Where are you on this chart?

10 A. I am on the last row, on the right. Right.

11 Q. That says your position is what?

12 A. Says I'm the Manager of Strategic Governance.

13 Q. And you reported directly to Tom Wright?

14 A. In this org chart, yes.

15 Q. And go on to page 2 in that exhibit. Tell me

16 what page 2 is.

17 A. Page 2 is an organizational chart for my

18 organization, for my group.

19 Q. Okay. The group that you manage?

20 A. Correct. Yes. Strategic Governance.

21 Q. Describe it for us a little bit.

22 A. I'm sorry, describe this chart?

23 Q. Your group, yes.

24 A. It was comprised of a combination of engineers,

25 engineering assistants, as well as contractors.

26 Q. Now, this org chart is dated as of October

1 31st, 2018; correct?

2 A. Correct.

3 Q. But were you actually functioning as the
4 manager of Strategic Governance in October of 2018?

5 A. In October of 2018 I was asked to join what was
6 called the "Accelerated Wildfire Risk Reduction Program,"
7 which was essentially our enhanced vegetation effort.

8 Q. Now, that was in October or in August of '18?

9 A. That was starting in October. I'm sorry,
10 starting in August through early November was when I was
11 supporting AWRR.

12 Q. And AWRR was what again?

13 A. Accelerated Wildfire Risk Reduction.

14 Q. What is AWRR, what is Accelerated Wildfire Risk
15 Reduction?

16 A. It was a, essentially enhanced vegetation,
17 cutting back more trees than the requirement.

18 Q. And when did that program start?

19 A. I was asked to join in August. I can't tell
20 you exactly when that program was started.

21 Q. And was this enhanced vegetation management
22 everywhere or targeted?

23 A. Well, that specific program, to my knowledge,
24 was based off of what tiers 2 and 3, according to the
25 High Fire District, according to the CPUC fire map.

26 Q. So that's the CPUC High Fire Threat Map, which

1 defined tier 2 and tier 3 fire danger zones; correct?

2 A. That's my understanding of it.

3 Q. Okay. And you don't know when exactly that
4 program started?

5 A. I can only tell you when I was asked to join.

6 Q. We'll go on.

7 We already went over this.

8 So you're here to talk about RIBA.

9 A. Yes.

10 Q. So what is RIBA?

11 A. RIBA stands for Risk Informed Budget
12 Allocation. It's a tool that PG&E uses to prioritize
13 projects so we can understand which projects can mitigate
14 the most risk, and so we can prioritize and rank those
15 first.

16 Q. So I've tried to summarize this real quick.
17 You prioritize risk by determining risk occurrence plus
18 the severity of the risk, and those give you a risk
19 score; is that about right?

20 A. There were three categories that projects were
21 scored against. They were safety, environmental, and
22 reliability. And each of those had, in order to develop
23 the score, you would have the probability of an event
24 happening and then the impact of that happening.

25 Q. Now, this is kind of my, you know, "RIBA for
26 Dummies" slide here, trying to set the basic

1 understanding of it; right?

2 A. Yes.

3

4 (Grand Jury Exhibit 675 was introduced.)

5

6 Q. So let's get into the actual workings of it.
7 You have in front of you Exhibit 675?

8 A. Yes, I do.

9 Q. And it's being displayed now on the big board.
10 Can you tell us what is Exhibit 675?

11 A. This is quite a large packet, but this was a
12 spreadsheet that was used to help score projects, or to
13 help record the scoring of projects.

14 Q. Okay. So explain -- look at page 1 that we're
15 looking up here and explain to us what we're looking at.

16 A. So page 1 is the high level overview of what
17 RIBA is and how it should be applied for each project.

18 Q. Okay. Walk us through it.

19 A. I haven't read this in a while, so forgive me
20 for a second.

21 So this was intended for someone who was
22 facilitating the overall effort to walk through with a
23 subject matter expert as far as how to score projects.
24 As example, if -- I'll use Marc as an example. If Marc
25 was the engineer that was the most knowledgable about the
26 project, then I would sit down with this guy and walk him

1 through the overall RIBA process and how using his
2 information to score a project.

3 So do you want me to talk about the overall
4 RIBA process?

5 Q. Sure.

6 A. Sure. So, as I mentioned, there were three
7 categories that a project is scored on. Just to be
8 clear, these are projects, this is not overall risk to
9 the companies, they're very specific projects, and what
10 the risk is if we don't do that project. And so there
11 are three categories. There's safety, environmental, and
12 reliability. And within each of those, there is what we
13 call the impact of that, of that project not being
14 completed, as well as the, what the probability of that
15 if it did fall. For the probability of an event would
16 be, essentially the frequency could be, if we don't do
17 the project. So within each of those there is a score of
18 1 to 7. And this gets a little complicated, and I know
19 there's a few slides that kind of help visualize these a
20 little bit.

21 Q. Right. We can go into those in a minute. Just
22 an overview right now.

23 A. Sure. So essentially you would score each of
24 those for each of those categories. Then between those
25 you could get a score anywhere from 1 to a -- 1 to
26 10,000. I cannot speak today, sorry. 1 to 10,000 for

1 any, each of those categories, meaning a total project
2 could range anywhere from a score of 3 to 30,000.

3 Q. All right. So let's walk through this. And
4 you're free to get up and move around. We can use the
5 big board. This is a Smartboard. We can do all kinds of
6 things.

7 But step one, "Agenda items: Hold initial
8 detailed session with the engineer; introduce the
9 investment planning effort; for each project; assess."

10 Explain to us what this means.

11 A. Which piece?

12 Q. This first section in here under "hold initial
13 detailed session with engineer."

14 A. So, as I mentioned, we would have folks that
15 would be familiar with the process. Myself, I was one of
16 those. And we would sit down with the engineer and go
17 through their portfolio of work and walk them through
18 that process.

19 Q. Okay. What is investment planning efforts?

20 A. I don't know specifically what that is
21 referencing to, but investment planning by itself is an
22 overall process that the company uses to develop its
23 budget and forecast for every year moving forward.

24 Q. Okay. "Assess what potential incidents the
25 project is designed to mitigate"?

26 A. So that's kind of what the risk is the project

1 mitigates.

2 Q. "Evaluate expected time to each incident based
3 upon supporting information"?

4 A. So this is sort of what I was talking about
5 with the impact and then the frequency. So that second
6 bullet -- sorry, third bullet, "Evaluate the expected
7 time for each incident." That's the frequency
8 calculation.

9 Q. All right. We'll go over, "Review detailed
10 information collected matching against the scoring
11 taxonomy."

12 A. Yes. Based off of what the engineer is aware
13 of for that project, they would use the RIBA guide and
14 score each project for each of the three categories.

15 Q. Then after that, we do "Review with the project
16 engineer"; correct?

17 A. Yes. We would talk it through and make sure it
18 makes sense.

19 Q. And then the key questions are the questions
20 that the scorer would ask the subject matter expert, the
21 engineer?

22 A. That's correct.

23 Q. And those deal with scope, impact, and
24 frequency?

25 A. Yes.

26 Q. All right. Okay. So let's move on in to page

1 2 of this document, 675. And tell us what we're looking
2 at here.

3 A. So this is the, what we call the taxonomy for
4 safety. There is a score of 1 to 7. This doesn't just,
5 this does not translate to the score of 1 to 10,000 I
6 talked about. We'll see that in a little bit. But based
7 off of the potential impact of what that project may have
8 if we do not complete it, then we will come up with what
9 the score is.

10 Q. Okay. So this is the safety taxonomy?

11 A. This is the safety taxonomy; correct.

12 Q. This scores everything from negligible, which
13 would be a 1, to catastrophic, which is a 7; right?

14 A. Correct.

15 Q. Okay. Next up, page 3.

16 A. The next slide should be the environmental
17 slide. It's a very similar type of situation. You can
18 see there's a lot more detail here for environmental.
19 But overall, once again, this is a, the score of if you
20 do not do the project, what the risk would be from an
21 environmental standpoint. And, generally, environmental
22 is concerned about, you know, habitat, endangered
23 species, that type of thing.

24 Q. Okay. Again, from 1, being negligible, to 7,
25 being catastrophic?

26 A. Correct.

1 Q. Next up?

2 A. I think I'm missing a reliability slide in
3 here, but I can speak to it.

4 Q. The reliability slide is missing?

5 A. From my package, but it's okay. I can speak to
6 it.

7 Q. I'm sorry, we'll have to get that taken care
8 of.

9 A. So, similar to safety and environmental,
10 reliability, this is more about the customer impacts, so
11 number of customers, the duration of outages, large
12 cities, metropolitan areas. It's what we call critical
13 locations. This can be anywhere from towns to cities.

14 Q. Before you make a note to make a copy of this
15 and add it into the packet later.

16 All right. And, again, this goes from
17 negligible at 1 to catastrophic at 7?

18 A. Correct.

19 Q. Next up?

20 A. So the three slides that you saw before that
21 were all regarding the consequence of impact, due to
22 impact. This is the frequency slide -- I'm sorry --
23 frequency taxonomy that applies to each of those
24 categories. With the 1 being once every -- more than 100
25 years of likelihood, to a 7, which is more than 10 times
26 a year.

1 Q. Okay. Now, how do you turn these things into
2 an overall score for a project?

3 A. So for each of the categories you would have an
4 impact score and then a frequency score. So depending on
5 what those two numbers are, it translates to a box in
6 this grid. So meaning a, the impact score is a 1 and a 1
7 -- or frequency of 1 is the bottom left corner of a
8 overall score of 1 versus the other extreme is a 7 for
9 impact score and a 7 for frequency, it translates to
10 10,000.

11 Q. And this type of -- I guess I'm forgetting the
12 word for it, but you do this for three separate types of
13 issues with each project?

14 A. Correct. So we would do each for safety,
15 environmental, and reliability for each project.

16 Q. All right. That's where we get the scale from
17 3 to 30,000?

18 A. Correct.

19 Q. All right. So let's talk about -- well, let's
20 go in on through this, the next page. You can explain
21 this, the flags.

22 A. So in addition to the score, there are what we
23 call flags that may be applied to a project, because
24 there may be reasons that we are required to do a
25 project, even if it doesn't have a high risk score. Such
26 as, it could be a compliance thing, meaning we're

1 obligated to do it for certain laws or whatever the
2 situation is. Basically these are different flags that
3 could be applied. So we can identify projects that may
4 still need to be completed even if it doesn't have a high
5 risk score.

6 Q. Okay. And, I believe, the final page?

7 A. So this is a list of, list of the top 10 and
8 what we call enterprise risks for PG&E in 2014.
9 Essentially these are what the company was concerned
10 about at the time.

11 Q. And the top enterprise risk was what?

12 A. The first risk is the, listed as wildfire.

13 Q. And what's the description of that list?

14 A. It says, "PG&E assets may initiate a wildfire
15 that is not easily contained and that endangers the
16 public, private property, sensitive lands and/or leads to
17 long-duration service outages. Focus on overhead
18 electric assets."

19 Q. All right. Final page.

20 A. This is an overall listing of all the
21 definitions or -- of all the columns that someone would
22 have to fill out during a RIBA scoring process.

23 Q. And we'll tie back to this in a second; right?

24 A. Yes.

25

26 (Grand Jury Exhibit 676 was introduced.)

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Q. All right. So I want to walk through kind of the RIBA process for a single event. And this is Exhibit 676 that you should have in front of you.

A. I'm looking for the actual RIBA scoring?

Q. No, no, the Business Case. Do you see the tag on it? There should be a white tag on it that says number 676?

A. Yes.

Q. All right. So you got it?

A. Yes.

Q. So what are we looking at in Exhibit 676?

A. So this is a, what we call a "Business Case" for the project to replace the damaged towers that collapsed in 2012 event. And a Business Case is essentially a request to, for dollars to complete the project.

Q. Okay. So this is dealing with the December 2012 incident that took out six towers on the Caribou-Palermo line?

A. Impacted five towers, but the project was to replace six.

Q. Are you involved in this project?

A. Yes. My name is listed as the program manager.

Q. So what does that mean?

A. So, as I mentioned, my role was, was

1 responsible for overall transmission line and substation
2 projects. So this being one of those.

3 Q. So let's walk through some of the names on
4 there then. The name directly above you is somebody
5 named Pat Hogan?

6 A. Correct. He was the senior vice-president at
7 the time.

8 Q. Then business owner, somebody named Manho
9 Young?

10 A. Yes. He was the senior director of System
11 Planning and Reliability. Essentially my direct
12 supervisor.

13 Q. And then Project Manager Duane Cobb?

14 A. Yes.

15 Q. Who is that?

16 A. He was the project manager for the project.

17 Q. How does project manager differentiate from
18 program manager?

19 A. Oh, so the project manager is, essentially
20 coordinates with the entire project team that's listed
21 there. It's a very long list that comprises of
22 engineering, construction, permitting. And they actually
23 were kind of more the boots on the ground to make sure
24 the project is constructed.

25

26 (Grand Jury Exhibit 677 was introduced.)

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Q. All right. So let's move on to 65 -- 677, I'm sorry. We're looking at an email from February 26th, 2014. Do you see that?

A. Yes, I do.

Q. Do you have it in front of you?

A. Yes.

Q. All right. This is an email from Manho Young. And you said Manho Young is who?

A. My direct supervisor.

Q. And this is addressed to several people. Does that include you?

A. Yes, it does.

Q. And who are the other people?

A. So the other folks were, played a similar role that I did, which is facilitating the overall process. Basically, we would work with the engineers that had the actual project to develop the scores.

Q. And this is a response to the email below it from Carlos Gonzalez to Manho Young; correct?

A. That's what it appears to be.

Q. All right. And, also, the same list of other people?

A. Yes.

Q. That includes you?

A. Yes.

1 Q. And who exactly was Carlos Gonzalez?

2 A. So, as I mentioned, Carlos was another person
3 that was helping with the scoring process, working with
4 the engineers to walk them through it.

5 Q. And then there's some other people on the list
6 that have an email address that says mckinsey dot com?

7 A. Correct. McKinsey was a contract consultant
8 that was brought in in 2014 to help us develop the
9 overall framework, the framework that is pretty -- not
10 common, but was used in other industries as well to
11 identify risk.

12 Q. Okay. Now, the start of the email from
13 Mr. Gonzalez says, "Manho, per my email earlier in the
14 week, I will not be able to attend the EO RIBA check-in
15 meeting tomorrow." Can you explain to us what that
16 means?

17 A. I don't know exactly what Carlos was saying,
18 but it implies that he was not able to attend a check-in
19 meeting. So this was a summary of his desk.

20 Q. What is a check-in meeting?

21 A. So because this was a new process that we were
22 rolling out, there were pretty periodic check-ins with
23 our leadership to make sure we were going the right
24 direction.

25 Q. All right. So I want to skip down to the first
26 entry under "Observations." Do you see that?

1 A. Yes.

2 Q. Do you see it says "Caribou-Palermo"?

3 A. Correct.

4 Q. And could you read that section to us.

5 A. Section says, "Less than 200 score because
6 there is no likely large environmental event. If
7 structures fail, it will be likely due to heavy rain, and
8 no wild fires are possible then. Also, no likely public
9 safety issue with the live wires down because it is in a
10 remote area. Reliability score is not that high, because
11 although the likelihood of failed structures happening is
12 high, the affected customers are likely in order of more
13 than a thousand customers."

14 Q. So we talked earlier about the scores being
15 between 3 and 30,000; correct?

16 A. That is the potential range with RIBA.

17 Q. And the Caribou-Palermo scored less than 200?

18 A. That is what this says, yes.

19 Q. All right. Now, why are you doing a RIBA
20 analysis of the Caribou-Palermo?

21 A. So, to be clear, this is not an assessment of
22 the overall line. This was for a specific project on the
23 line. At the time there were actually two projects that
24 were on the Caribou-Palermo line. And to determine which
25 project this was, we had to do a comparison of the
26 overall score as well as the details that are listed

1 here. And when you look at the two projects based off of
2 how it was scored, this was for the replacement of the
3 structures that fell down.

4 Q. Okay. And you're familiar with what was the
5 other project on the Caribou-Palermo at the time?

6 A. The other project was to relocate about ten
7 towers on the line.

8 Q. And so both of those projects were scored using
9 the RIBA process to determine what?

10 A. So the RIBA process is, the score is the
11 consequence of if we don't complete that project. In
12 this particular case, this is if we, if we do not replace
13 the steel structures or install the new steel structures.
14 I do want to clarify that at the time we had installed
15 wooden structures where the towers had fallen down, what
16 we call a "shoo-fly," very fun technical term. But the
17 wooden poles were installed in a permit fashion and,
18 therefore, the scoring of this project was really the
19 consequence if we keep those wood poles up and not put in
20 the steel structures.

21 Q. So it sounds like a less than 200 score for the
22 Caribou-Palermo project is pretty low?

23 A. I wouldn't say that. The -- my experience,
24 transmission line projects were generally in the range of
25 100 to 300.

26 Q. So what are the chances with an under 200 score

1 that the Caribou-Palermo replace-six-towers project is
2 going to get done in 2014?

3 A. I can't speak exactly at the time, but because
4 it is in the general range of what we're seeing for
5 transmission projects, it would have been something that
6 would have been discussed, actively discussed.

7 Q. So with the RIBA, you're making decisions on
8 which projects are going to be actually completed that
9 year; correct?

10 A. Not completed, per se, but which -- what will
11 be allocated resources, meaning people dollars.

12 Q. How is this related to the FERC transmission
13 owner rate case?

14 A. I'm not sure I understand your question.

15 Q. Well, you're familiar with the FERC
16 transmission owner rate case process; right?

17 A. Yes.

18 Q. That is the process by which PG&E requests
19 permission to raise rates from FERC; correct?

20 A. To recover rates, yes.

21 Q. And they do so by giving FERC a list of capital
22 projects that they intend to do, and this is how much
23 it's going to cost, so this is how much we have to charge
24 our people; correct?

25 A. That is my understanding.

26 Q. Okay. So would it surprise you if the

1 Caribou-Palermo wasn't already on the 2014 FERC rate
2 case, in terms of its funding had already been approved?

3 A. Would it surprise me?

4 Q. Yeah.

5 A. If it was or was not on there?

6 Q. If it was on there.

7 A. No, the project would have been in our plan.

8 And so if it was planned for the following year, we would
9 have included it in that rate case.

10 Q. So why, if you've already gone to FERC and
11 asked them for the money to do these projects, are you
12 now deciding whether or not you're going to do them?

13 A. No. So this wasn't -- the overall RIBA process
14 wasn't just for this project.

15 Q. Right.

16 A. It was the entire portfolio of work we had
17 planned. So -- and there could be reasons that any
18 project could be deferred at any given year, meaning you
19 could run into weather issues, you could run into other
20 constraints. There are a lot of reasons that a project
21 may move, the scheduling move.

22

23 (Grand Jury Exhibit 678 was introduced.)

24

25 Q. Okay. So let's get into the next slide. This
26 is 678. Explain to us what we're looking at here.

1 A. So this is essentially the overall scores for
2 the project. So this is essentially the details for the
3 scoring for this project.

4 Q. Okay. So let's walk through this. There's
5 actually two projects on here; right?

6 A. Yes.

7 Q. These are both of Caribou-Palermo projects that
8 were pending approval to get done; correct?

9 A. These were projects on specific sections of the
10 line, but yes.

11 Q. So we start off B column says "Total Risk
12 Score"; correct?

13 A. Yes. So that's the sum total of the three
14 categories.

15 Q. Right. So in line 10 column, we have the
16 "Caribou-Palermo 115 kV relocate." That's relocate 10
17 towers; correct?

18 A. Yes.

19 Q. And its risk score was 581?

20 A. That's what it says.

21 Q. And then on line 116, this has been annotated
22 to take that out, we have the "Caribou-Palermo replace 5
23 damaged towers"; correct?

24 A. Yes.

25 Q. And its risk score is only 180?

26 A. That's what it says, yes.

1 Q. So you said that most of the transmission line
2 risk scores are between 100 and 300; correct?

3 A. It's a range. You'd have projects that can be
4 above or below them.

5 Q. But the relocate actually is 581?

6 A. That's what it says.

7 Q. Are you familiar with what actually they were
8 trying to do in the relocate project?

9 A. I don't recall all the details, but it was for
10 access issues; it was to relocate 10 towers so we could
11 actually get to them easier.

12 Q. Actually, by this time all they were looking at
13 was building a road to access the towers where they were
14 at; correct?

15 A. I don't know that. I can't remember the exact
16 timing of anything.

17 Q. Okay. So then we have 581. Next column, C,
18 the safety risk score; correct?

19 A. That's what it says.

20 Q. What is that?

21 A. That's, as we talked about earlier, the score
22 on the grid for the safety.

23 Q. Okay. So for the relocate, 18. So that would
24 be an average of 6, correct, on the 1 to 7 scale?

25 A. No. So that's just for safety as well.

26 Q. Okay.

1 A. So -- and I don't know what -- I'd have to look
2 at the grid to tell you what combination of scores that
3 could be.

4 Q. I forgot all about that we have a third project
5 down here, which is the Caribou-Palermo 115 NERC Alert
6 project --

7 A. Yes.

8 Q. -- also; correct?

9 A. Yes.

10 Q. And we don't have scores on that; right?

11 A. It doesn't -- well, I can't read it. It's not
12 very clear. It has a score. At least a completed score.

13 Q. I forgot we put this in here. This would
14 actually be an example of a compliance, something that
15 you were mandated to do?

16 A. NERC Alert wasn't necessarily a compliance
17 item, it was a firm guidance from NERC to do some work on
18 our transmission lines.

19 Q. That was with relation to clearance
20 requirements on transmission lines?

21 A. It had to do with how high our conductors were
22 from the ground.

23 Q. All right. So safety score for the relocate,
24 18; safety score for replace the 5 damaged towers, 1.

25 A. That's what it says.

26 Q. Environmental risk score for relocate, 1; for

1 replace, 1. And then reliability risk score, 562 to 178.

2 A. That's what it says.

3 Q. So what's the difference between a reliability
4 risk score and total risk score?

5 A. So the total risk score in column B is
6 basically the sum of the next three columns; the safety,
7 environmental, and reliability. So if you add up the
8 562, the 1, and the 18, that should be 581.

9 Q. Okay. All right. So let's go through the rest
10 of this.

11 "2015, draft rank," what does that mean?

12 A. I actually do not know, or cannot recall.

13 Q. Okay. And project manager. Who was Rich
14 Pettingill?

15 A. Rich Pettingill was a project manager of the
16 project in 2014 when we scored this project.

17 Q. Is he listed on 676, the Business Case?

18 A. He is listed sort of halfway down the page as
19 the supervisor of Electric Project Management.

20 Q. Next up, asset engineer, John Culbertson. Who
21 is John Culbertson?

22 A. John Culbertson was the engineer that acted as
23 what we call the project sponsor representative for the
24 project in 2014.

25 Q. All right. And then Mr. Culbertson is also the
26 asset supervisor?

1 A. I cannot speak to why he's listed twice.

2 Q. What's an asset supervisor?

3 A. I don't know exactly, but my guess is this

4 would be the supervisor of the asset engineer.

5 Q. All right. Let's move on to the next page of

6 that document.

7 All right. Let's move across. "MAT

8 Description," do you know what that is?

9 A. So MAT stands for, I believe it was Material --

10 I can't remember what the A stands for. But it's

11 basically a code that PG&E uses to categorize projects,

12 group them together.

13 Q. And then "MAT," with numbers?

14 A. Yes.

15 Q. I'm going to skip over, over here, and

16 "In-Service Date"?

17 A. These would have been the in-service dates at

18 the time of the scoring.

19 Q. Okay. For the Caribou-Palermo -- or for the

20 replace 5 towers, that date is October 1st, '15; correct?

21 A. That's what it's showing.

22 Q. Okay. What is "2015 Status," what does this

23 mean?

24 A. I don't know if I remember.

25 Q. Okay. And then "High Level Scope," what is

26 that category?

1 A. This is a high level description of what the
2 project will be doing.

3 Q. All right. And then "2015 Forecast," what does
4 that tell us?

5 A. So these are the dollars that are being, what
6 -- how much the project team thinks they need in 2015 to
7 continue doing the project.

8 Q. Okay. So for relocate, it's 750,000; correct?

9 A. For that year, for 2015.

10 Q. And for replace, it's 3 million?

11 A. Yes, that's there.

12 Q. Okay. All right. So let's start getting into
13 the, into the meat of this. We're now on to page 3,
14 "Project score, Carlos Gonzalez"?

15 A. Yes.

16 Q. That's the person, you told us, he's kind of
17 the expert that's leading somebody through this; correct?

18 A. He was facilitating the process, yes. So he
19 was helping the engineer walk through the process.

20 Q. Who is the engineer?

21 A. John Culbertson.

22 Q. That's listed in column AJ?

23 A. Yes. Yes.

24 Q. So John Culbertson is the engineer that's
25 supposed to be the expert on this project?

26 A. He's the most familiar with the overall

1 project.

2 Q. All right. So let's move on to the next page.
3 Now we're starting to talk about the actual project
4 itself.

5 So there's a column, "AN," that says "Impact
6 Notes." What does that mean?

7 A. So this is, these are the notes that would
8 explain the scores, reasoning behind the impact scores.
9 So if you actually flip back to page 3, the far right
10 column, "AM," has the impact score of 1.

11 Q. The impact score on this project for safety is
12 1?

13 A. Yes.

14 Q. That's because?

15 A. It's on the next page. And it's a little bit
16 cut off here. I'm going to have to go off the other
17 notes. Basically that it's -- there was no significant
18 of public safety concern because of the location of the
19 structures. It was in a remote area. And the concern is
20 that -- and these impact notes are based off what we call
21 "the worst reasonable direct impact." Basically in this
22 particular case, would a structure fall down and hit
23 somebody? And based on how remote the area was, that's
24 why it has a score of 1. You're not likely going to have
25 someone walking around in this area.

26 Q. So who makes that determination?

1 A. Of what?

2 Q. What, that there's no significant public or
3 employee safety issue?

4 A. Well, remember the concern for this project was
5 that we had a wet and windy storm that caused some towers
6 to fall down. So that was what we were trying to
7 mitigate overall with this project. Basically, we didn't
8 want more structures to fall down in this area. So in
9 order -- because that's what our concern was, was a wet
10 and windy storm, that was the reasoning behind this. At
11 least I'm speculating that is John's reasoning behind
12 this.

13 Q. Well, all we have is the records; correct?

14 A. Correct.

15 Q. Is John Culbertson still with PG&E?

16 A. He has since retired.

17 Q. So Mr. Culbertson makes a determination that
18 there's no significant --

19 (Proceeding interrupted by deputy.)

20 Q. All right. So then we move over to column
21 "AO," and then we have a 1 frequency score. What's that?

22 A. So this is the likelihood that something would
23 fall down and hit somebody. So has a score of 1, which
24 would be negligible -- I cannot speak.

25 Q. All right. And next we move into the
26 environmental risk score; correct?

1 A. Yes.

2 Q. And, again, a score of 1?

3 A. For the impact. And then the concern here is
4 the note says that the structures would go down during
5 rainy and wet storm. And what's not shown here is that
6 the wildfire is not likely, because on the wet ground not
7 likely to have wildfire.

8 Q. Who is making that determination, based on
9 what?

10 A. Once again, the concern about what the project
11 was trying to fix was structures that were impacted
12 during a windy and wet storm.

13 Q. So you only care about your structures going
14 down in windy and wet storms?

15 A. That's not what I would say. Once again, we're
16 talking about the worst reasonable direct impact for this
17 project and then what the scoring is based off of what
18 we're trying to actually fix here. So in this particular
19 case, our structures are designed to withstand certain
20 amount of wind and other sort of situations. We have
21 design standards that we follow. And so I don't know, I
22 wouldn't agree with what you're trying to say.

23 Q. So the worst reasonable direct impact is simply
24 what this project is to mitigate?

25 A. No. That's how we would use to calculate the
26 score for each of these categories.

1 Q. But we can come up with a lot of very bad
2 direct impacts of issues happening to this shoo-fly;
3 correct?

4 A. Well, to clarify, there are other scores that
5 are done from a company-wide perspective. You saw the
6 list, the 10 top list, listed in one of the earlier
7 packets. So there's a different scoring for those. The
8 scoring for this is, this is a very specific project.

9 Q. So I don't understand why we're only looking,
10 that we're saying, "Well, we're only looking at wet,
11 windy events," as opposed to any possible events that
12 would happen on this line?

13 A. So, just to rephrase, the shoo-fly that was put
14 in, even though it was for, it was wood structures
15 instead of steel structures, they were built to what we
16 consider permanent standard, meaning it was intended to
17 last. So the expectation that something would just fall
18 apart is low. So the concern would be a storm situation,
19 sort of an outside influence, that could cause something
20 to happen.

21 Q. I'm going to guess that everything PG&E builds
22 is supposed to be built to withstand conditions and not
23 fall down right away; correct?

24 A. In some situations there may be some what we
25 call "temporary structures" that, for construction
26 purposes, an example, we may build some things in order

1 to help us with the construction. And those are usually
2 not permanent. But in this particular case, for this
3 section of line, the structures that, the wood pole
4 structures that were put in were permanent, or designed
5 to be permanent.

6 Q. You -- generally, just does PG&E generally hang
7 115 kV transmission lines on wood poles?

8 A. We do have 115 on wood poles.

9 Q. So why would you use steel structures for
10 those?

11 A. I don't understand.

12 Q. Well, for instance, the -- you were trying to
13 replace the structures that fell down ultimately with
14 H-frame steel structures; correct?

15 A. That's correct.

16 Q. Why not just leave them on the permanent wood
17 poles?

18 A. Well, that's -- one of the purposes of scoring
19 this project is to understand if we left the wood poles
20 there what would be our risk versus putting in steel?

21 Q. And somehow you guys made a decision that these
22 wood poles were only at risk in rainy and wet conditions?

23 A. Well, as I stated, these were newly installed
24 at the time. So in 2014, these poles are only about a
25 year old. So my understanding is the shoo-fly was
26 installed in January of 2013. So at the time of scoring,

1 this is less -- year and a half maybe. And so the
2 expectation, these are new structures, they shouldn't
3 just be falling down.

4 Q. All right. So let's go on to the next page,
5 and let's go to the frequency score. Reliability

6 Now, under the frequency score and reliability,
7 the frequency score is 6?

8 A. That's what's listed there, yes.

9 Q. And the notes next to it says, "Probably could
10 happen this next season"?

11 A. I don't know what John was thinking about when
12 he came up with this score. I can only tell you --

13 Q. The thing that can probably happen this next
14 season is those poles could fall down; correct?

15 A. He could also be referring to there could be a
16 big storm in the next season as well. I don't know.

17 Q. Right. But he's saying frequency, that this is
18 scoring very high on the frequency under the reliability
19 chart, and specifically, "Probably could happy this next
20 season."

21 A. I can't speak to what John was assuming there.

22 Q. Right.

23 A. It's possible he could have thought that the --

24 Q. Well, let's not talk about what's possible.

25 A. Okay.

26 Q. You're just here as designated PG&E to testify

1 about these records; correct?

2 A. Understood.

3 Q. You said John Culbertson is the subject matter
4 expert on this project?

5 A. Yes.

6 Q. John Culbert was assigned to do the RIBA
7 scoring on this because it's his project?

8 A. Yes. In 2014, yes.

9 Q. All we know is what he put in his records, that
10 these things could probably fall down this next season?

11 A. That's what's written down, yes.

12 Q. Okay. And despite the fact that these poles
13 could probably fall down next season, this project was
14 only given a 180 score?

15 A. Once again, it's based off the overall matrix
16 of -- with the giant grid, based off of what is listed
17 here is the impact, and then the probability that that
18 translates to, I believe, 178.

19 Q. So on the other hand, the relocate project had
20 a total risk score of 581?

21 A. That's what it says.

22 Q. Okay. And would it surprise you that if after
23 2010 -- prior to 2010, everything was canceled on that
24 program other than building a road?

25 A. I'm sorry, can you repeat the question?

26 Q. The only thing this project was to do was to

1 build a road to access the towers?

2 A. Well, remember, the original project was to
3 relocate towers.

4 Q. Right. The original project was to relocate
5 deteriorating towers that were a threat to fall into the
6 Feather River Canyon?

7 A. No, that wasn't the case.

8 Q. Okay.

9 A. The concern was that the structures that they
10 were looking at were difficult to access, meaning you
11 would have to hike there or do other means to get there.
12 So the concern was access to getting to those structures
13 so that we could maintain and operate them.

14 Q. All right. The original, the AA -- we talked
15 about what an AA is; right?

16 A. Not with me.

17 Q. Okay. I'm sorry. The original that was put
18 forward for this project in 2007 by a guy named (WITNESS
19 #5), he applied for funds out of the Deteriorating Assets
20 Fund; correct?

21 A. I don't know.

22 Q. Okay. And the original of this was to replace
23 -- or to relocate ten deteriorating towers?

24 A. I don't believe that's what it said. My
25 understanding was these were existing structures that
26 needed to be relocated so that we can have access to

1 them.

2 Q. Now, let's assume that I'm correct, that by
3 this time the relocate ten towers project was down to
4 simply building an access road to get to some towers.
5 How is that more safety than replacing
6 temporary-permanent towers on a section that's fallen
7 down?

8 A. So I'd have to look at the actual scoring in
9 order to tell you what the thought process behind it is.
10 I can't speak just off the top of my head.

11 Q. Okay.

12 I have nothing further.

13 Do any of you have any questions for this
14 witness?

15 I'm sorry, I forgot. I'm still getting used to
16 having a prosecutor back in with me.

17 (Counsel and Grand Jury Foreperson confer.)

18 Q. (By MR. NOEL) All right. The jurors have a
19 couple of questions for you. I'm going to read them to
20 you.

21 Is doing a risk score for the structures on the
22 Caribou-Palermo line, or any other line, is there a risk
23 matrix weight given to the actual age of the line?

24 A. Just to clarify, so is there a consideration
25 for age?

26 Q. Yes.

1 A. Is that the question? So age would factor
2 potentially into several areas. It could be resulting in
3 larger -- not necessarily larger, primarily be a
4 frequency issue, meaning that an older structure may have
5 more of a likelihood of failure. That's the only where I
6 can think of that would come in, where age would come in.

7 Q. Has PG&E, to your knowledge, ever given weight
8 to the absolute age of the materials involved?

9 A. Not from a RIBA perspective, but it is
10 considered in how we develop our overall strategies for
11 how we want to handle our assets. Meaning that,
12 obviously, you want to target some more older,
13 deteriorated assets, but age is not the only aspect that
14 we take a look at when we consider what we need to
15 replace. There could be some -- like the condition of
16 the material may weigh more than the actual age itself.

17 Q. How do you know the condition of the material?

18 A. The -- so the condition is based off of
19 multiple things. It could be the actual inspections that
20 -- so there's information that comes from the
21 inspections. There are materials' strength tests that
22 can be done. There are other tests that can be done on
23 the equipment as well.

24 Q. And what would cause somebody to do these other
25 tests on, on assets?

26 A. Well, some of them are periodic, essentially

1 part of our inspection and patrol process. So that's
2 where some of the information comes from.

3 Q. So wouldn't something like five towers falling
4 down kick into gear some kind of process to evaluate that
5 asset?

6 A. Well, so the reason that the five towers fell
7 down wasn't the age or condition issue, it was because of
8 the wet and windy storm that happened. Basically, we had
9 -- the ground was wet, we had potential ice on the wires
10 themselves, and with the wind blowing, essentially what
11 happened is one of the legs pulled out of the ground and,
12 as a result, the one tower falling down took out two --
13 five -- I'm sorry -- four others.

14 Q. Are towers supposed to do that?

15 A. They're not supposed to do that. And, once
16 again, it was a wind storm, wet and windy storm event,
17 that caused that, the damage.

18 Q. How was that storm any different from any of
19 the other storms that we have yearly through this Feather
20 River Canyon?

21 A. I definitely cannot speak to that.

22 Q. Was there any root cause analysis for why those
23 towers fell down?

24 A. There may have been, but I wasn't involved in
25 it.

26 Q. Have you ever seen that?

1 A. I'm sorry?

2 Q. Have you ever seen one?

3 A. I have not seen one, but that doesn't mean
4 there wasn't one done.

5 Q. Right. Is there a root cause analysis
6 mentioned at all in the Business Case that we were
7 looking at earlier?

8 A. Business Cases don't typically include any root
9 cause analysis. They're more focused on why we should do
10 the project.

11 MR. NOEL: Anything further?

12 I think that's all we got. Thank you for your
13 patience today for being here.

14 And Madam Foreperson has an admonition for you,
15 then you are free to leave.

16 GRAND JURY FOREPERSON: Ms. Wong, you are
17 admonished not to discuss or disclose at any time outside
18 of this jury room the questions that have been asked of
19 you or your answers until authorized by the Grand Jury or
20 the Court. A violation of these instructions on your
21 part may be the basis for a charge against you of
22 contempt of court. This does not preclude you from
23 discussing your legal rights with your own attorney.

24 Ms. Wong, what I have just said is a warning
25 not to discuss this case with anyone except the Court,
26 your lawyer, or the district attorney. Do you have any

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questions?

THE WITNESS: Nope.

GRAND JURY FOREPERSON: Thank you for your time
today.

THE WITNESS: Thank you.

[DISCUSSION OMITTED.]

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COURT REPORTER'S CERTIFICATE


This is to certify that I, JENNIFER L. HUNT, CSR, a Certified Shorthand Reporter of the State of California, was present at the time and place the foregoing proceedings were had and taken in the within matter; that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings and afterwards caused my said shorthand writing to be transcribed into typewriting. Further, pursuant to CCP237 all reference to jurors by name has been redacted.

The foregoing pages beginning at:

1 through 109

are certified to be a complete transcription of said stenographic shorthand notes.

DATED: THIS 6TH day of JUNE 2022



JENNIFER L. HUNT, CSR 10735
OFFICIAL REPORTER

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IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

REDACTED

BCSC-2019-GJ-01

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, NOVEMBER 19, 2019

VOLUME 26

OROVILLE, BUTTE COUNTY, CALIFORNIA

LISA MCDERMID WELCH, CSR 10928, OFFICIAL COURT REPORTER

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4 Jennifer Dupre-Tokos, Deputy District Attorney
5 25 County Center Drive
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I N D E X

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Examination by Mr. Noel

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1 OROVILLE, BUTTE COUNTY, CALIFORNIA

2 NOVEMBER 19, 2019; 1:41 p.m.

3 (Confidential Special Grand Jury Hearing Proceedings)

4
5 [PROCEEDING OMITTED.]

6
7 [Recess taken from 1:41
8 until 1:56 p.m.]

9
10 [ROLLCALL OMITTED.]

11
12 [DISCUSSION OMITTED.]

13
14 MR. NOEL: Are we ready for our first witness or
15 our only witness today?

16 GRAND JURY FOREPERSON: We are ready.

17 MR. NOEL: Do you want to summons Mr. Salas.

18 [Witness enters the courtroom.]

19 GRAND JURY FOREPERSON: Mr. Salas, would you
20 mind standing to be sworn.

21 Mr. Salas, do you solely swear that the evidence
22 that you shall give in this matter pending before the
23 grand jury shall be the truth, the whole truth, and
24 nothing but the truth so help you God?

25 THE WITNESS: I do.

26 GRAND JURY FOREPERSON: Thank you. Have a seat,

1 please.

2 **EXAMINATION**

3 BY MR. NOEL:

4 Q. Mr. Salas, for the record, can you please state
5 your full name spelling your last name.

6 A. Edward Alfonso Salas, S-a-l-a-s.

7 Q. Mr. Salas, are you currently employed?

8 A. No, Sir.

9 Q. At some point were you employed?

10 A. Yes.

11 Q. What did you do for a living?

12 A. I've done a variety of jobs. For most of my
13 career I worked for telephone companies, first the wire
14 line Pacific Telephone/Pacific Bell. Then the wireless
15 side Airtouch and Airtouch International. I worked
16 overseas. And when they were sold and there was a merger
17 with Vodafone, that became part of what became Verizon
18 Wireless. And so I worked for Verizon Wireless from its
19 inception until 2007.

20 After that I was living in New Jersey. I was
21 hired by PG&E. And I came to PG&E in 2007 and left in
22 2011. Really was without a job for two years and then
23 was hired by my pastor. And I worked for my church for
24 four years in the East Bay of San Francisco Bay Area.

25 Q. What did you do for PG&E?

26 A. Senior vice president of engineering and

1 operations.

2 Q. How did you come to work for PG&E from the
3 telecom industry?

4 A. I was headhunted by PG&E.

5 Q. What does that mean?

6 A. That means there were people that were seeking
7 to reach out to me and convinced me that it was a good
8 place to be and that I could add value to PG&E there.
9 The CEO at the time -- I think that was his title -- Bill
10 Morrow had been somebody I had worked with while in the
11 telecom phase.

12 Q. What skills did you have coming from the telecom
13 industry that would make you valuable to PG&E?

14 A. I had -- well, you have to talk to PG&E in terms
15 of what they wanted. Okay. So I can't -- I can tell you
16 what I've done.

17 I've been responsible for technical
18 organizations managing large engineering organizations.
19 Prior to being at Verizon, I had responsibility for
20 engineering, planning, and strategy standards. And so we
21 supported the nationwide network in terms of engineering
22 standards and people designing the system, procurement of
23 technology, technology management and standards in that
24 work.

25 Q. Why were you told that you would be valuable to
26 PG&E?

1 A. As I recall, they were interested in -- I had a
2 lot of operational background. I had experience with
3 folks that actually made the system work, process level,
4 focus, results. And I was able to manage large groups of
5 people and I had experience in that area. They were
6 looking for somebody with, I guess, more operational
7 experience than they had at the time.

8 Q. What is your educational background?

9 A. I've got a Bachelor's degree in psychology.
10 I've got a number of technical schools with a bell
11 system, technology schools, and then with Airtouch went
12 to engineering school for radio technologies. And the
13 company had sent me to a couple of business programs; one
14 at Harvard and one at Michigan. Business schools.

15 Q. Are you an engineer?

16 A. No, Sir.

17 Q. So when did you arrive at PG&E?

18 A. April 11th of 2007, as I recall.

19 Q. Describe for us what your job at PG&E entailed.

20 A. It was a pretty broad job. I was responsible
21 for engineering and operations for their gas as well as
22 electric systems both transmission and distribution.

23 Q. You should have in front of you Exhibit 679. Do
24 you see the exhibit?

25 A. Yes.

26 Q. Do you recognize what that exhibit is?

1 A. Yes.

2 Q. What is that exhibit?

3 A. It's a high-level organization chart.

4 Q. Organization chart for who?

5 A. For Jack Keenan.

6 Q. Who is Jack Keenan?

7 A. He was the chief operating officer for the
8 utility.

9 Q. The utility being PG&E?

10 A. Correct.

11 Q. Can you kind of walk us through the
12 organizational chart.

13 A. It's really representing the leadership of the
14 electric transmission and distribution organizations. So
15 under Jack Keenan I had responsibility for engineering
16 and operations and Geisha Williams had responsibility for
17 energy delivery. So she would have the -- kind of the
18 people that are -- you would recognize as PG&E in the
19 trucks and the vehicles that are out in the communities.
20 I had the engineers that work on the front end of that
21 process for designing and working the projects.

22 Q. And then in the middle between you and Geisha
23 Williams is somebody named Bill Arndt.

24 A. Bill Arndt was a shared vice president. I think
25 he reported to me directly on paper, but he reported to
26 both of us. The transmission and distribution

1 organizations were hopelessly linked together. So they
2 were both ends of the same stick.

3 And so we would have the front end usually of
4 the design of the system and the work that was being
5 generated and then she would have the execution side, the
6 people that were doing the physical work.

7 Q. All right. When you arrived at PG&E, did you
8 have any experience -- any prior experience or knowledge
9 about an electrical utility?

10 A. No.

11 Q. So what did you do when you started at PG&E?

12 A. I spent a lot of time learning both about the
13 electric transmission and distribution systems as well as
14 the gas transmission and distribution systems as well as
15 storage.

16 Q. How did you learn?

17 A. A variety of ways. So a lot of time in the
18 field with people doing the work. I spent a lot of time
19 reading a lot of material that had been produced in the
20 past, a lot of seminars and reports that had been
21 generated. So it was really consuming. Standards
22 information as well as interior presentations.

23 Really just a deep dive in anything and
24 everything that I could put my hands on relative to the
25 industry, its history, and PG&E's industry and history.

26 Q. So in Engineering and Operations can you give us

1 an idea as to the different areas of focus that you had
2 with PG&E?

3 A. Well, primarily the four areas. Okay. So there
4 was electric transmission focus. There was electric
5 distribution focus, gas transmission focus, gas
6 distribution. There was a regulatory component to all
7 those entities because they were different jurisdictions
8 from a regulatory standpoint that you had to be mindful
9 of and understand.

10 The distribution part of the business was really
11 overseen and managed through the California Public
12 Utilities Commission. The electric transmission was
13 under federal jurisdiction so you had to work with FERC.
14 And gas transmission was also, I believe, legally under
15 federal jurisdiction, but I think they had a proxy
16 through CUPC to have authority.

17 So I've worked in those areas. And there were
18 other areas, but those were the primary ones.

19 Q. Once you started at PG&E and started to do your
20 homework and learn about the company and the business of
21 being a utility, can you tell us your impressions of
22 PG&E.

23 A. I would say the systems were less complicated
24 than a cellular business, but the systems were more
25 consequential. So they were not as complicated but more
26 things would happen if things went wrong. So they

1 were -- you had to be very conscience of the consequences
2 of outages or the system, you know, not working.

3 Q. Once you got your feet wet in PG&E, did you
4 endeavor to make changes to the way business was done in
5 Engineering and Operations? Sorry.

6 A. Yes.

7 Q. Talk to us a little bit about some of the
8 changes that you wanted to make.

9 A. The organization was largely geographic. It was
10 broken up into geographic entities. And so one of the
11 issues that was a challenge for me was -- well, you know,
12 electricity is common throughout the system. The way it
13 was administered and run and designed could be different
14 in the different geographies throughout the service
15 territory. So 70,000 square miles or so. I forget. I
16 haven't worked for them for eight and a half years so I
17 forget a lot in terms of the detail.

18 But it was -- it was built over the years by a
19 lot of merger and acquisitions with smaller companies.
20 And those companies were all designed uniquely,
21 differently. And then when they came together under the
22 large umbrella, it made it hard to implement improvement
23 because work was getting done a little bit different in
24 most places. And so one of the challenges was trying to
25 standardize work process and upgrade systems.

26 Q. What about the culture of the company?

1 A. It was -- it was a culture that was a challenge
2 for me to work in and through.

3 Q. Okay. We'll talk about that again in a minute.

4 Now, you were with PG&E for almost exactly four
5 years; correct?

6 A. Correct.

7 Q. And would it be safe to say it was a busy time?

8 A. That would be an understatement, yeah.

9 Q. I want to go out to the next Exhibit 680. And
10 you recognize 680?

11 A. Yes, I do.

12 Q. And what is 680?

13 A. It was part of a document that I had sent to the
14 chief executive of the business when I was in the process
15 of leaving PG&E to remind him and the president of the
16 utility at the time of the challenges that I had faced
17 when I came to PG&E in the course of time in my four
18 years.

19 Q. So I'm going to walk through some of these
20 challenges. The first one says "Angry employees at 2007
21 Annual Shareholders Meeting."

22 Can you explain that situation to us.

23 A. So I arrived in April of 2007. In May of 2007
24 there was the annual shareholders meeting. As I recall,
25 it was conducted in San Ramon, California. And it was a
26 standard annual shareholders meeting.

1 Part of that meeting allows shareholders to get
2 in line and address the speaker, typically the chairman
3 of the company. And we had a number of employees that
4 were standing in line wanting to communicate about
5 concerns they had with the business.

6 Q. Why did that present a challenge?

7 A. It was a little bit shocking to see employees
8 that frustrated talking about what they saw as being a
9 situation that was wrong in the North Bay of San
10 Francisco.

11 Q. Was an investigation initiated into the
12 allegations made by the employees?

13 A. Yes.

14 Q. And did you take part in that investigation?

15 A. I did not have overall responsibility, but I had
16 people involved in the investigation. So I was involved.

17 Q. So what was found with regard to the employees'
18 complaints in 2007?

19 A. It confirmed a number of their complaints.
20 Records had been falsified in the North Bay as related to
21 gas survey information. And so we had clearly to take
22 action to sort out root cause and what was going to be
23 needed for corrective action in the North Bay.

24 Q. Now, gas survey. Is that related to the
25 inspection and maintenance of the gas lines in the North
26 Bay?

1 A. It's -- as I recall -- so I could be wrong. If
2 I get this wrong, forgive me. I think the requirement
3 was -- I don't know what it is today. But eight years
4 ago we had to survey all of our gas lines transmission
5 and distribution. Basically once every five years you
6 would do the entire system. So you would do 20 percent
7 of your system every year.

8 And you would have people out basically
9 physically inspecting, sniffing the lines using equipment
10 that would allow them to detect any gas that was escaping
11 inappropriately, and then identify that and get crews to
12 make repairs as necessary. And that was the process that
13 had been a problem in the North Bay.

14 Q. And you found evidence that records of those
15 inspections or those surveys were being falsified?

16 A. Yes, Sir.

17 Q. All right. Let's move down to the "Gas Matters
18 findings system wide - leak survey consistency." Explain
19 to us what that is.

20 A. So when we became aware that we had a problem --
21 and just to mention this, apparently this had been -- I
22 learned that this had been the third time employees had
23 come to an annual shareholders meeting to make that
24 report.

25 And so when it was finally investigated and
26 determined that there were issues in the North Bay that

1 were valid, we felt we had to look at the rest of the
2 system to make sure that we didn't have a similar set of
3 problems going on elsewhere.

4 What we found were -- we did not find, as I
5 recall, the same kind of falsification of documents, but
6 we found that the way people were doing their job and the
7 way the work was getting done was a little bit different
8 in different places. So the results were not necessarily
9 consistent or comparable. And we felt that was
10 unacceptable.

11 And so we -- with the work and permission and
12 authority given to us by the board ultimately, we went to
13 endeavor to resurvey the entire system in a very, very
14 aggressive and accelerated way.

15 Q. That ties in down below "The Accelerated Leak
16 Survey"?

17 A. Correct.

18 Q. And what was the Accelerated Leak Survey?

19 A. It was -- we took a five-year process and we
20 compressed it into, I want to say, two years and a
21 quarter or something like that. And we basically had to
22 resurvey the entire system. But before we could do that,
23 we had to standardize the process, the tools, how we
24 calibrate equipment, how we track.

25 We had to kind of re-engineer the entire process
26 to make it standard and then we had to run everybody

1 through training and qualify them on that new process and
2 new set of tools. And then we had to go about the
3 business of actually doing the resurvey.

4 And when you do a resurvey, you're looking for
5 leaks. So that means as you find leaks, you have to
6 repair them. And so we had a phenomenal amount of
7 construction work going along with that resurvey.

8 Q. Going along with that, not on this list, were
9 you familiar with the -- and I don't know if there was a
10 name for it but the low-risk leak issue that the Gas
11 Transmission Division had in 2007/2008?

12 A. I don't ever recall that.

13 Q. Okay. Now, you mentioned that the shareholders
14 meetings and that this was the third time that the
15 employees had come to address these issues.

16 A. That was my understanding.

17 Q. Are there shareholders annual?

18 A. Yes.

19 Q. So it would have been three years in a row?

20 A. That's what I had been led to believe.

21 Q. Okay. So other issues. Multiple DC system
22 failures in San Francisco?

23 A. Yes.

24 Q. What is DC?

25 A. Direct current.

26 So the majority of the systems in AC alternate

1 current. So it's a form of electricity and the way the
2 electrons flow. The DC systems which existed in downtown
3 San Francisco and in downtown Oakland were kind of custom
4 systems built, as I recall. And again, I'm fuzzy. But I
5 think it energized mostly elevator systems throughout the
6 core of these downtown areas. So elevators worked on DC
7 voltages. And so these systems were designed in order to
8 support that.

9 They were very, very old systems as you might
10 imagine.

11 Q. The systems or the elevators?

12 A. Both. We had antique elevators everywhere. And
13 they would only work on DC service. And so you needed to
14 have the system to support that.

15 Q. And then you add another problem in San
16 Francisco due to explosions. Can you tell us about that.

17 A. Which explosions?

18 Q. There were more than one?

19 A. Yes.

20 Q. Well, the transformers.

21 A. The network transformers?

22 Q. Yes, Sir.

23 A. So in large urban environments utilities
24 frequently design systems that are a little bit more
25 robust than in outlying areas, suburban or rural areas.
26 And they design systems in a ring so that the service

1 that is supplied, the electrical service, if there's an
2 interruption on any single leg of that ring, it continues
3 to flow in the opposite direction. So you have service
4 that's pretty reliable. And that's a network -- it's a
5 network system. Okay?

6 And so there was a network system in largely the
7 Financial District, as I recall, in San Francisco. I
8 think we had a small network in Oakland. I don't believe
9 there were any others.

10 And when I arrived on the scene -- I think it
11 was in July. Yeah, I think it was in July -- we were
12 having a number these transformers let go. So we were
13 having explosions, failures, massive catastrophic
14 failures of some of those transformers.

15 Q. And you were involved in the lead investigation
16 into why that was occurring?

17 A. Yes.

18 Q. And you noted in Exhibit 680 that there were
19 maintenance and engineering breakdowns as well as record
20 issues; correct?

21 A. Correct.

22 Q. Can you explain those a little bit to us.

23 A. As I recall, we had quite a time, I think,
24 getting to the root cause on these failures, these
25 outages. And, you know, I was, I think, pushing the
26 group in a way they hadn't been before. I did not want a

1 superficial proximate cause of these outages. I wanted
2 to understand kind of the physics underneath this and
3 understand really what was driving the failures.

4 What we found in, I think, the July explosion is
5 that we had had people trying to maintain the system that
6 didn't know quite what they were doing. And as I recall,
7 we actually had, I think, an employee that was removing
8 oil from the transformer which is kind of the opposite of
9 what you'd want to do to keep a transformer functioning.

10 And it just -- and it came down from, I think, a
11 variety of breakdowns in terms of management not
12 understanding its role, engineers not being connected
13 enough to how the system needed to be designed and
14 maintained and tested. You know, the rigger round. I'm
15 remembering. The digital gas analysis.

16 So we test the oils in transformers for the
17 presence of substances that would indicate that that
18 system is starting to fail, break down. And so you can
19 take action on a transformer before it fails
20 catastrophically if you see the chemistry of its oil.

21 And so we were discovering that we had a number
22 of issues with these old systems that required a lot more
23 maintenance than a new system might. And there was
24 breakdowns in the way we administered and managed,
25 trained, and tracked the activity.

26 Q. Were there issues with inspection and

1 maintenance policies being correctly followed?

2 A. Yes.

3 Q. And with the gas -- the problems in the North
4 Bay, did you have the same -- find the same problems?

5 A. I think generically yes. Details would be
6 different.

7 Q. Right. But problems with inspection and
8 maintenance policies being followed?

9 A. Yes.

10 Q. And that was on the gas transmission side?

11 A. As I recall, the sense that I had was the gas
12 transmission was actually more under control than the
13 situation on the distribution side.

14 Q. And going down you have "gas matters findings
15 system wide, leak survey consistency, emergency valves
16 and regulator station records, maintenance processes,
17 cathodic protection records and processes."

18 Is that part of the same problem emanating out
19 of the North Bay or is that separate problems?

20 A. The North Bay. They had issues detected with
21 cathodic protection. So, yeah, I think that was part of
22 the North Bay. Also I think emergency valves and
23 regulator too as I recall.

24 Q. And then Diablo Canyon electric yard events.
25 What was that about?

26 A. There were a couple of outages in the high

1 voltage electric yard in Diablo Canyon successive
2 summers, I think, as I reference here eight and nine.

3 Q. Were there also issues with inspection and
4 maintenance policies in that investigation?

5 A. I don't remember the details of Diablo Canyon.
6 I know we had issues with documentation. There were --
7 there was a struggle getting correct engineering record
8 information for the electric yard. We struggled with
9 locating employees that retired because they weren't the
10 ones that were the best -- had the best information and
11 knowledge of the system. So we didn't have good solid
12 records. And that was frustrating.

13 Q. So after you found the problems with the North
14 Bay, you said you extended that investigation out to the
15 entire gas transmission system; correct?

16 A. No.

17 Q. Oh, did I misunderstand that? You didn't --

18 A. Distribution and transmission.

19 Q. Okay.

20 A. Mostly distribution.

21 Q. Okay. I was going to follow that up with
22 distribution, but we'll keep them together.

23 So that included records reviews, inspection and
24 maintenance policies throughout the gas transmission and
25 gas distribution?

26 A. Correct.

1 Q. Now, the issues in San Francisco with the
2 exploding transformers and the DC current, those were all
3 electrical distribution; correct?

4 A. Correct.

5 Q. As a result of those investigations, did you
6 extend any of those investigations out to the rest of the
7 electrical distribution network?

8 A. We looked at -- I think we had a small DC system
9 in Oakland. Like I said, we also looked at our network
10 trans -- electric network transformers that were in
11 Oakland. And we made the same -- we made changes to
12 process and to inspection requirements and training. We
13 included Oakland in that.

14 Q. Okay. But based upon the issues you found with
15 recordkeeping and inspections and maintenance in San
16 Francisco, did you extend that part of the investigation
17 out to the rest of the electrical distribution network?

18 A. No. As related to this, no.

19 Q. And at any time you found problems with
20 inspection, maintenance, and recordkeeping, gas
21 transmission and distribution, and you found problems
22 with inspection, maintenance, and recordkeeping and
23 electrical distribution, at any time did you take a look
24 at electrical transmissions to determine if there was the
25 same problems occurring in that division?

26 A. I don't remember uniquely addressing the

1 electric transmission records aside from the records that
2 were associated with new reliability requirements coming
3 from the federal government, the NERC. And associated
4 with a whole set of new reliability requirements coming
5 from the NERC we had to inventory a number of devices
6 throughout our system on the -- on the transmission side.
7 And we found issues as it related to records. So we had
8 to physically kind of review and inventory every
9 substation, every transmission substation in the system
10 in order to update records to be accurate so that we
11 could do the right upgrades the regulations require.

12 Q. So I guess where I'm going is you knew that in
13 the North Bay on the gas transmission and especially the
14 distribution side that those records -- those survey
15 records were being falsified; that the inspections were
16 not being done or weren't being done the way they were
17 supposed to be done; correct?

18 A. Correct.

19 Q. Did anybody go out to see if you had the same
20 issues and look at the actual inspection records in the
21 electrical transmission side?

22 A. No. But just to be clear, to explain the gas
23 issues in the North Bay weren't everybody, but there was
24 a couple isolated people. They're supervisors. So it
25 was confined to a smaller group.

26 The bigger problem was that work was getting

1 done differently at different places and it wasn't
2 standard. And that was -- that was the huge concern. So
3 we had to fix the misconduct. Okay. But that was pretty
4 focused. The bigger issue was broader than that.

5 Q. Okay. Let's move on. Was Enterprise Risk
6 Management a part of your job with PG&E?

7 A. Yes.

8 Q. What is Enterprise Risk Management?

9 A. Enterprise Risk Management, as I understand it,
10 was -- was a pretty standard program amongst large
11 corporations throughout the United States that sought to
12 manage, to the extent they could, the huge, enormous
13 risks that they would identify that were relevant to
14 their business.

15 So there would be a process where they -- each
16 business would assess itself, look for the big risks that
17 could impact the business financially, reputationally,
18 and then find a way to help mitigate some of those risks.

19 So the Enterprise Risk Management cut across all
20 parts of the business. It wasn't just about transmission
21 and distribution. It could be generation. It could be
22 customer service. It could be financial management. It
23 could be all the aspects of the business.

24 Q. Prior to coming to PG&E, did you have any
25 experience with risk management?

26 A. I typically was represented to the risk group

1 within Verizon as we assessed the system risks in kind of
2 a similar fashion, but it was really obviously for a
3 large cellular business.

4 Q. I'm going to assume that the risks of a public
5 utility, electrical or gas transmission and distribution
6 utility, would be somewhat different than those in the
7 telecom industry?

8 A. Technically, yes.

9 Q. How did you go about educating yourself about
10 the specific risks inherit to the public utility
11 business?

12 A. Well, I'm going to answer that in two ways.
13 Nearly everything a utility does involves risk. Okay.
14 So everything I did to learn about the business in
15 everyday. Both the gas side of the business as well as
16 the electric, transmission, and distribution all involved
17 management of risk. So that was just the day-to-day
18 business.

19 The Enterprise Risk Management was kind of a
20 process that was looking at the business from, you know,
21 100,000 feet, from a very high level, and sorting out
22 risks in that area. So that was the different discipline
23 and therein was a different staff and group working for
24 the chief risk officer in the business.

25 And so they spent a fair time educating me, as I
26 recall, on the -- on their program. And there were

1 existing risk documents that I reviewed and got briefed
2 on.

3 Q. Do you know who the chief risk officer was when
4 you started?

5 A. I believe it was Ken Harvey.

6 Q. How -- when you first started, how did PG&E
7 manage risk?

8 A. You'd have to be more specific.

9 Q. I was afraid you'd say that.

10 What was the -- I guess trying to keep it
11 general, the culture at PG&E when it came to managing and
12 dealing with risks?

13 A. I can't speak for the entire business. I was
14 only exposed really to transmission and distribution.

15 Q. Well, what you did then?

16 A. I think there was -- I think it was a huge
17 sensitivity to safety programs and, you know, how work
18 got done, you know, in terms of risk to the community.
19 So there was, I think, a lot of sensitivity and culture
20 of consciousness for it.

21 I would just say that I don't think everybody
22 was on the same page as related to how they would address
23 risks and manage processes and systems and the like.

24 Q. And just to make some things clear, when we're
25 talking about -- when I'm asking questions about PG&E,
26 we're always going to be talking about your personal

1 experience at PG&E, the businesses you worked at, or the
2 areas in the business you worked at while you were there.
3 And if we're going to divert from that, I will try and
4 make it perfectly clear.

5 Now, are there different ways that risk is
6 addressed?

7 A. I would say yes.

8 Q. Are you familiar with the term "relative risk"?

9 A. Yes.

10 Q. What is relative risk?

11 A. It was a term that was used, as I recall,
12 largely in the gas distribution world. As we were moving
13 towards a new mandated distribution integrity management
14 plan that was taking us from a world of relative risk
15 assessment, that's where you would assess risk of your
16 assets by comparing one asset to the other.

17 So you would look at a set of assets and you
18 would kind of work the worst ones relative to the -- you
19 know, the others. And so it was kind of a less
20 scientific assessment of risk than other methodologies,
21 but it was what was used.

22 People kind of assessed based on inspection of
23 the condition of an asset and then you would record that.
24 And you'd make decisions about what needed to be
25 addressed first, second, and third.

26 Q. Do you have personal issues with relative risk?

1 A. Well, yeah.

2 Q. Why's that?

3 A. I was used to working with data in everything I
4 did historically. And the data would be gathered in a
5 more scientific fashion than kind of a relative risk. A
6 relative risk kind of depended on the engineer, an
7 employee, or a craft person that was doing the
8 assessment.

9 So I didn't feel comfortable in making decisions
10 based on people's kind of non-database assessment. I
11 would have preferred a little more kind of science as it
12 relates to assessing asset condition.

13 Q. Would it be fair to say that the relative risk
14 assessment includes a lot of subjectivity?

15 A. I would say so, but I would say the industry
16 didn't have a lot of methodology to do the kind of risk
17 assessment that I was used to. Not in this industry, not
18 in the utility space.

19 Q. Are you familiar with the term "probabilistic
20 risk"?

21 A. Yes.

22 Q. What's probabilistic risk?

23 A. It is risk that is derived from looking at a
24 whole lot of data, different attributes of a given asset.
25 So you would measure different pieces of it, different
26 elements of it, and you would assemble different ratings

1 to the value or the impact of those different attributes.
2 And you'd have some sort of computational model that
3 would spit out an overall global kind of assessment as to
4 what the risk was relative to that given asset.

5 Q. So it would be fair to say that probabilistic
6 risk assessment is an objective risk assessment?

7 A. I don't think it's perfect, but it's far more
8 rigorous than I think the relative assessment method
9 would be. But it's only as good as the methods you put
10 in place to get the data.

11 Q. Garbage in, garbage out still applies; right?

12 A. True.

13 Q. When you arrived at PG&E in 2007 in the
14 Enterprise Risk Management area, was PG&E applying more
15 of a relative risk assessment or an objective risk
16 assessment in the areas you worked?

17 A. As it relates to the Enterprise risks?

18 Q. Yes.

19 A. I don't think they characterized how they got
20 their data or risk data. I would say it was more
21 realistic in nature. There wasn't -- if there was data,
22 we would introduce it. But I think when the corporation
23 would vote on their most prominent risks, it was -- it
24 was not based on a ton of data, as I recall.

25 Q. It sounds like you prefer personally
26 probabilistic risk?

1 A. In a perfect world, yeah. But again,
2 probabilistic methods are worthless if you don't have a
3 really good way of gathering data that is reliable that
4 you have confidence in.

5 Q. So after you started with PG&E, did you try to
6 make changes with regard to risk assessment?

7 A. I'm not sure I'd characterize it that way. I
8 tried to make a difference in terms of process trigger.
9 I tried to make a difference in terms of how we measured
10 things with data for tracking performance and results. I
11 tried to make a difference in how we held people
12 accountable. So it was, I think, a broader set of things
13 that I tried to make a difference in.

14 Q. Okay. Let's move on to Exhibit 681. You should
15 have that in front of you.

16 Do you recognize 681?

17 A. Yes.

18 Q. What is 681?

19 A. I made notes to myself when I had -- toward the
20 time following the San Bruno transmission pipeline
21 explosion. It was a tough time in the business, as you
22 might imagine, with that tragedy. And I would just say
23 that at some point, you know, in kind of the aftermath of
24 that disaster there was internally to the business a lot
25 of recrimination and kind of subtle finger pointing. And
26 some of it not so subtle.

1 And I kind of got the sense -- at some point my
2 Spidey senses sensed that they were looking to perhaps
3 blame somebody. Because everybody wants to blame
4 somebody in a disaster. Okay. And this, you know, San
5 Bruno disaster happened on my watch. I was there. I had
6 global responsibility for the transmission system and
7 gas.

8 And so I started to sense that maybe they were
9 looking to blame me internally and perhaps fire me for
10 cause, which I felt was unjust and without basis. In
11 fact, I created this list just to remind myself because,
12 you know, days were, you know, 18 hour days seven days a
13 week. It was -- there was a lot going on. And I just
14 wanted to make a note to remember kind of the set of
15 challenges that I faced when I walked in the door.

16 So this list represents kind of some of the
17 challenges, the most prominent challenges I experienced
18 when I first walked in the door in 2007.

19 Q. Okay. Now --

20 A. That's why it says "Historic" at the top.

21 Q. Yep. And we've got a blown-up copy of this.
22 And this is, of course, copies of copies of copies of
23 copies by now.

24 So you and I met several weeks ago and went over
25 this list; correct?

26 A. Correct.

1 Q. And I asked you on each one to read it to me so
2 we'd get it right; correct?

3 A. I recall you reading some and asking me about
4 what it meant.

5 Q. Okay. So we took your list and put it into --
6 typed it out so we can read it. So I want to ask you
7 about a few of these things.

8 Now, the two columns "Issues" and "Impact," can
9 you explain those things to us.

10 A. I just wanted to characterize the business
11 challenges that I had walked into in 2007 in my opinion.
12 It's my opinion only so I don't know how many people
13 would vote or agree with what I characterized. And then
14 I outlined the challenge, the "So what" of those
15 challenges. So this was a challenge. What was the
16 impact in my estimation? So this is my view.

17 Q. Okay. So the first one "Decentralized
18 operations across service territory," why is that an
19 issue?

20 A. When you want to have standardization and you
21 want to have a consistent look and feel of the
22 performance of a business, if you're doing business in
23 different ways and different places even the same
24 activity, you can't guarantee the same outcome and you
25 can't compare results really well between one turf and
26 another turf. They're kind of doing work a little bit

1 differently. It's harder to make improvements. It's
2 harder to make corrections that are standard across the
3 whole service territory. So that was for me a challenge.

4 Now, I understand the history of the business
5 had been, you know, local John decides where the road
6 ended and everybody thought he did it right.

7 Q. Explain to us what you mean by "Siloed view of
8 operations" and why that was an issue.

9 A. This utility -- and I don't think it was just
10 PG&E. It was, I think, a number of utilities that I
11 looked at. Their businesses were set up in separate
12 units. So you had, you know, a group of distribution
13 engineers working in kind of their own world or
14 transmission engineers working in a different world. And
15 the same on the gas side. And so there was wasn't a lot
16 of -- and then you had the field entities. You know, the
17 linemen, troublemen organizations.

18 So everybody had kind of their own groups that
19 they operated in, and there wasn't a lot of cross-dialog
20 between these different groups. And sometimes that could
21 be a problem. That's why I had increased complexity.

22 Q. "Standards based rules versus process based."
23 Can you explain that to us and why it's an issue.

24 A. There were a lot of standards. The way the
25 business had defined the operation was really -- in terms
26 of requirements was in terms of outcomes. So the

1 standard defined kind of the rock bottom of what was to
2 occur with the given activity. There was less
3 standardization of how the work got done.

4 So when you knew what needed to be done and you
5 would characterize, you know, the right -- you know, the
6 complete job, but that's just -- for me it was
7 incomplete. I wanted to have process standardization as
8 well as just the outcome. I didn't want to just know
9 what the right result was. I wanted to know how you got
10 those results, and I wanted that to be standardized.

11 Q. What do you mean by "culture of no bad news."

12 A. Within my organization there was a fair amount
13 of fear. You know. And I'm not here to tell you why it
14 was there because I don't know. I just know what I faced
15 when I showed up.

16 So my engineers were not inclined to deliver bad
17 news for fear of getting slapped hard. So people tended
18 to just not report bad stuff, things that were wrong or
19 where they were at fault; human work errors. Fessing up
20 to making a mistake was not something that happened
21 easily readily because they were typically punished in
22 the past when they did that.

23 Q. "Budget versus work based success criteria."

24 Can you explain that to us and why it's an issue.

25 A. There was tremendous focus on budget performance
26 so nobody operated with a blank check. There were

1 budgets for different parts of the business. Everybody
2 had a budget for the work they had to do. But when I
3 showed up, success was more about conforming to the
4 budget than ensuring completion of all the work that
5 needed to be done.

6 So that was problematic for me. Because while I
7 was interested in the budget, I was more interested in
8 making sure that the programs that needed to be completed
9 were completed. So as I was interested in the work as
10 well as the budget, then if there were overruns that I
11 could understand, you know, it wasn't a productivity
12 issue. It wasn't a bad engineering issue. You know,
13 who? Kind? Where? Where is the problem? Solve the
14 root cause stuff.

15 Q. All right. Let's skip down a little bit. "Form
16 over substance - ERM." What does that mean?

17 A. I was -- the -- the Enterprise Risk Management
18 model was a high-level executive look at risk in the
19 business. And a lot of work and a lot of staff time got
20 poured into, you know, generating reports and doing
21 analysis. And I wasn't -- I wasn't sure that it was
22 yielding a lot of real results from where I stood in my
23 organization.

24 So we were pouring, you know, hundreds of hours
25 of people time into doing all kinds of the bureaucratic
26 stuff associated with, you know, generating reports and

1 analysis and so on and so forth. And I just wasn't sure
2 that it was -- it was the best use of my people's time.
3 I understood that we had to do it. It was a requirement.
4 So I tried to make it more relevant and useful over my
5 time there.

6 Q. And under "Impact" on that you have written
7 "False security." Could you explain that to us.

8 A. My sense of things was -- as we looked at
9 reports that assessed condition of assets, condition of
10 our work processes, they were largely more favorable
11 than, you know, the reality of the situation.

12 So I think if you saw -- again, if you had a
13 culture that either didn't value a lot of bad news, you
14 didn't want to kind of reveal how ugly your baby was. So
15 you would get a false sense of security at least in my
16 organization at T&D, you know, if you weren't willing to
17 expose some of the warts of the organization so that you
18 could address what needed to be fixed.

19 Q. The next one down is "Non operational view of
20 utility." And the impacts of that is
21 "Regulatory/financial/political." Could you explain that
22 to us.

23 A. My sense was that -- again, my impression at the
24 time 2007 was that there was a lot more focus on
25 regulatory filings, legal arena as it related to the
26 business and a financial performance and not enough of

1 the business -- the whole business understanding and
2 appreciating, you know, the pipes and wires side of the
3 operation.

4 And so -- and I think that that was due in large
5 part to the siloed characteristic of the business. The
6 T&D executives didn't share a lot of what really
7 happened, you know, in the business. So you know,
8 ignorance is kind of bliss.

9 Q. "Leadership syndicates risk." What does that
10 mean?

11 A. Again, my impression of the way we made
12 decisions as a leadership group was more of a consensus
13 as opposed to a lot of debate.

14 I had come from a different culture in Verizon.
15 It was a New Jersey based company. And where I lived and
16 worked and the culture on the east coast is much more
17 confrontational and aggressive. And so it was just a
18 different culture that -- the culture on the west coast
19 of PG&E was more "We need to get along." And, you know,
20 it was just less confrontation.

21 I'm not saying confrontation is necessarily
22 good. It's not healthy in the way it's done, but there
23 wasn't enough of blunt talk, you know, to make sure that
24 we were getting after the right stuff.

25 Q. You put down the impact of leadership
26 syndicating risk as "accountability gaps." Will you

1 explain that for us.

2 A. It just comes from if everybody owns a decision,
3 then nobody owns it is kind of my philosophy.

4 Q. So nobody is at fault?

5 A. Yeah. Nobody is fully accountable.

6 Q. Now --

7 A. Again, in 2007 that was my impression.

8 Q. Right. So overall did we do a pretty good job
9 of interpreting your handwriting on the typed-out chart
10 that we have up on the big board?

11 A. I think you did.

12 Q. I think there was one question. "Latent issues"
13 under "Budget versus work based success criteria." We
14 couldn't figure out what you wrote.

15 A. I'm sorry. Say that again. Which one?

16 Q. "Budget versus work based success criteria."
17 And the impact says "Latent issues."

18 A. I've got a fuzzy copy here. "Latent issues
19 masked."

20 Q. Masked. Okay. Great.

21 MR. NOEL: Let's see. We have been going for a
22 little over an hour. Do you want to take a break here, a
23 natural break here of 15 minutes? And then hopefully,
24 we'll be able to get through the rest fairly quickly.

25 GRAND JURY FOREPERSON: Yes.

26 MR. NOEL: Give him the admonishment.

1 GRAND JURY FOREPERSON: Okay. Mr. Salas, you
2 are admonished not to discuss or disclose at any time
3 outside of this jury room the questions that have been
4 asked of you or your answers until authorized by this
5 grand jury or the Court. A violation of these
6 instructions on your part may be the basis for a charge
7 against you of contempt of court. This does not preclude
8 you from discussing your legal rights with your own
9 attorney.

10 Mr. Salas, what I have just said is a warning
11 not to discuss this case with anyone except the Court,
12 your lawyer, or the district attorney.

13 Do you have any questions?

14 THE WITNESS: No.

15 GRAND JURY FOREPERSON: Thank you.

16 MR. NOEL: All right. Let's take a break real
17 quick.

18 [Recess taken from
19 2:58 until 3:16 p.m.]

20 MR. NOEL: Ready to go back?

21 GRAND JURY FOREPERSON: All members of the grand
22 jury are present and ready to proceed.

23 **EXAMINATION CONTINUED**

24 BY MR. NOEL:

25 Q. All right. Mr. Salas, in front of you you
26 should have Exhibit Number 682.

1 A. Yes.

2 Q. Do you recognize 682?

3 A. I mean, I see the document. I don't necessarily
4 remember anything about it.

5 Q. Okay. Take a second to look it over.

6 Do you recognize the document?

7 A. Yes, but I'm not going to say that I understand
8 all of the components of it. But, yeah, I have seen the
9 document.

10 Q. All right. First up, this document is entitled
11 "Risk Management in ED and E&O."

12 A. "Energy Delivery and Engineering & Operations."

13 Q. So Engineering & Operations would be your
14 division?

15 A. Correct.

16 Q. And ED would be the -- would have been Geisha
17 Williams?

18 A. Not at that time.

19 Q. That was going to be my next question. This is
20 dated May 1st, 2007; is that correct?

21 A. Correct.

22 Q. And when did Geisha Williams come in and take
23 over ED?

24 A. As I recall, it was toward the end of the year.
25 So I'm thinking it was in the December timeframe of 2007.
26 I could be wrong.

1 Q. So a couple things I wanted to point out here.
2 Going down to "Enterprise Problem," the second section.
3 And it says "The first problem is that PG&E lacks a well
4 defined, documented risk policy/standard at the
5 enterprise level that explains PG&E's overall risk
6 assessment methodology, defines the lines of business
7 roles and responsibilities, specifies the requirements
8 for performing and documenting risk, links risk
9 assessments to controls, self assessment reviews, and
10 audits, specifies the requirements for metrics to track
11 the risks."

12 Do you agree that that was a problem when you
13 started in 2007?

14 A. Generally, yes.

15 Q. And going down to section impact of problem on
16 ED and E&O and the potential impacts. "The risk
17 assessment methodologies for determining what work is
18 funded and is not funded and is different than the risk
19 assessment methodology used by ED and E&O to determine
20 high-risk work processes."

21 A. I don't remember who produced this document so I
22 can't really speak to what is behind the words. But,
23 yeah, I think there was an issue that I had that reflects
24 pretty much what that's saying although I'm not sure it's
25 identical.

26 The Enterprise Risk Management were very high

1 level. And when you identified risk in that process,
2 that process from a corporate wasn't linked to budgeting.
3 So if you identified risk or work, there wasn't unique
4 ways of getting new activity funded through that process.

5 Q. And the next statement in there "The difference
6 in methodologies and the lack of a link to the risk
7 assessment effort may lead to important items not
8 receiving the required funding."

9 Do you agree with that statement?

10 A. I think it's possible, but I think that may have
11 been the case in May of 2007. We tried to over time link
12 more real activities to what was going on in support of
13 any given enterprise risk. So we tried to bring that
14 together so not to identify mitigating work that was
15 disconnected from the enterprise risks.

16 Q. Now, there's some handwritten notes on this
17 document specifically on page 2. Is that your
18 handwriting?

19 A. Yes.

20 Q. And that goes on and starting on page 3 are
21 "Inherent Risk Ranking Results." And again, there's some
22 handwritten notes on the document.

23 Do you recognize those notes?

24 A. That's my writing.

25 Q. Okay.

26 A. I'm not sure I can tell you what it meant.

1 Q. Okay. Can you explain the risk ranking results
2 that are showed out in these charts on pages 3, 4, 5,
3 and 6.

4 A. No, I can't explain it because I don't actually
5 remember the different criteria for the different ratings
6 and rankings. Again, this was a long time ago. Probably
7 wasn't -- since this was delivered in May of 2007 and I
8 showed up in April of 2007, I wasn't involved in the
9 creation of the document. It was a staff exercise. So I
10 think at that time I was just more trying to understand
11 what was being presented than -- than necessarily
12 agreeing with it.

13 Q. Okay.

14 A. So anyway, this obviously distinguished between
15 inherent risks, whatever that meant, and residual risk
16 items. And again, I'm not sure. They were trying to
17 assess all processes within the transmission and
18 distribution organizations.

19 Q. So just from a basic standpoint on the left side
20 of the document written is "high and low" and then in
21 between them an arrow pointing up.

22 A. Right. So there was a continual risk going from
23 low to high on that -- on that access.

24 Q. Okay.

25 A. Okay.

26 Q. And then we have the same thing on the bottom of

1 the document moving left to right "low and high" with an
2 arrow pointing to the right.

3 A. So that again is another continuum on the
4 likelihood access here of these -- of assessing risk
5 looking at all these work processes.

6 Q. So what is the difference between likelihood and
7 significance?

8 A. Again, I didn't design this, and I'm not sure.
9 I'm giving you my opinion today. Okay. 2019.

10 Q. Yep.

11 A. I think the English here just means you're
12 looking at these processes and again ranking the
13 likelihood of risk in these various categories increasing
14 from left to right and then you're looking at the
15 significance of those risks from bottom to top.

16 So if you're looking at ranking, I would assume
17 that those processes in the upper right-hand corner would
18 be the most significant processes you've got with the
19 highest likelihood occurring of having risk.

20 Q. So applying relative risk assessment you'd say
21 that those in Box 9 would be the highest?

22 A. In theory those would probably be the most
23 impactful sets of processes. If you were going to focus
24 on making improvements, you might want to focus on that
25 set first --

26 Q. Okay.

1 A. -- if you agree with what was done.

2 So I don't know who made these assessments and
3 what basis they made these assessments on. Okay. So I
4 can't tell you that is right. I can just tell you that
5 is how I read the document.

6 Q. Right. Do you know what the numbers in the
7 parentheses behind each process means?

8 A. No. I don't remember.

9 Q. All right. All right. Let's move on and go to
10 683. Do you recognize 683?

11 A. Generically, yes.

12 Q. What is 683?

13 A. Status reports for Enterprise Risk Management.
14 Quarterly there would have to be a status report that
15 would be delivered to the risk management organization.
16 And as I recall, there was a steering committee of
17 executives that would also get an update, not necessarily
18 all the details, but they'd get a summary update of where
19 you were as it related to that particular risk and all
20 the stuff you might be doing to mitigate the risk.

21 Q. Okay. Now, on the caption it lists "Risk owner,
22 supporting officers, and risk manager." Do you see that?

23 A. Yes.

24 Q. And your list is supporting officer; correct?

25 A. Yes.

26 Q. What does it mean to be a supporting officer?

1 A. It means you are not fully -- you're not in
2 control of the administration of that risk, but you are
3 supporting the officer that is responsible. So you are
4 kind of the co-owner somewhat but not fully responsible
5 for the -- for the end product necessarily.

6 So in this case the risk owner was Jeff Butler
7 who was the executive that had energy delivery. Again, I
8 just had shown up, you know, in that second quarter of
9 2007. So I was brand new and so having engineering and
10 operations I was shown as a supporting officer.

11 Q. Okay. So was Jeff Butler the predecessor to
12 Geisha Williams?

13 A. Yes.

14 Q. And what does it mean to be a risk owner?

15 A. It just means you have responsibility for that
16 particular risk, that enterprise risk as it pertains to
17 ensuring that assessments are taking place, that
18 mitigating actions or component activities are being
19 identified and they are being tracked, and that you're
20 making progress on doing the things that we declared
21 needed to be done to help mitigate the risks.

22 Q. And finally, there's a risk manager listed.
23 What is a risk manager?

24 A. It's the person that is really kind of the
25 day-to-day arms and legs for that particular risk making.
26 You know, making sure the meetings are taking place that

1 need to take place, the right experts are coming
2 together, that they're producing documents that show what
3 is being done, recording what is happening, and kind of
4 in charge of producing the overall end product documents.

5 Q. And who was Lise Jordan?

6 A. Lise Jordan was, as I recall, a manager.

7 Q. Was she someone in your chain of command?

8 A. I don't remember if she was in mine or in Jeff's
9 at this time. Ultimately, she did report to me for a
10 time in vegetation management.

11 Q. Okay. So let's walk through this. This is
12 21 pages. Emerging concerns, progress on existing risk
13 management. It talks about overall gaps.

14 If you could take a look at that for us. It
15 should just be on the second page.

16 A. Nope. I don't see it. I'm not finding that
17 page.

18 Q. Okay. We will take care of that.

19 All right. And then let's go on. As part of
20 that document there's a slide show "Enterprise Risk
21 Management, Gas & Electric T&D, System Safety Risk
22 Review."

23 A. Yes.

24 Q. And that's where we walk through this. There's
25 some handwritten notes on this.

26 A. Yes.

1 Q. Are those your notes again?

2 A. Yes.

3 Q. So I want to skip to page 6 in the risk

4 definitions.

5 A. I'm not sure I'm looking at the same dec.

6 Q. Let's see.

7 A. You said page 6. This is on page 2.

8 Q. Oh, page 6 of the overall documents.

9 A. Okay.

10 Q. So yeah, yep.

11 Okay. All right. So risk definition. If you

12 could read us the definition of risk.

13 A. So is this from 2007?

14 Q. Yes.

15 A. Okay. "System condition that PG&E knows or

16 should reasonably know could cause a hazardous event but

17 does not take expeditious or sufficient action to

18 mitigate that risk."

19 Q. And what's a system condition according to this?

20 A. "Any condition associated with gas or electric

21 transmission and distribution facilities that poses a

22 threat to public and employee safety."

23 Q. And what is a hazardous event according to this?

24 A. "It includes events that possess a significant

25 risk to the -- significant safety risk to employees and

26 the public. Examples: Fire, explosion, and health

1 threats. Example: Environmental affixation, and
2 electrocution."

3 Q. Okay. And now what kind of risks are in scope?

4 A. "All gas and electric transmission,
5 distribution, substation, and regulated facilities."

6 Did you want me to read the rest of that?

7 Q. No. We can probably -- you don't need to read
8 it all.

9 A. It's basically everything.

10 Q. Well, and I guess where I was going with that --
11 I lost my train of thought -- is what does it mean to be
12 in or out of scope?

13 A. In terms of the work and analysis that would go
14 on for coming up with strategies to try to attack these
15 risks, you would go after the in-scope stuff and you
16 would agree that the out-of-scope things would be not
17 addressed in this particular risk.

18 Q. Now, the next page talks about risk drivers.
19 What is a risk driver?

20 A. I'm not seeing that page.

21 Want me to answer the question?

22 Q. Go ahead and answer the question. Somehow that
23 page is missing. We will submit it.

24 So go ahead. What is a risk driver?

25 A. So a risk driver would relate to activities or
26 to facts that help drive that particular risk, that helps

1 make that risk present and exist. So one of the things
2 that are driving that risk making it more acute.

3 Q. Okay. And let's see if there's anything else we
4 need to touch on here. I think that's all we want to hit
5 on in this document.

6 So let's go -- now I want to go out of order to
7 691. It should probably be at the bottom of the stack.
8 It's the last -- the last one.

9 Do you see 691?

10 A. Yes.

11 Q. All right. So 691 looks to be exactly the same
12 report. So this is also Enterprise Risk Management
13 quarterly status report for the second quarter 2007;
14 correct?

15 A. Yes, but for a different risk.

16 Q. Okay. So explain that to us.

17 A. This is for urban wildfire, not system safety
18 which was the one first we looked at.

19 Q. Okay. So this is specifically for urban
20 wildfire?

21 A. Correct.

22 Q. And what is urban wildfire?

23 A. I think we have to read the definition here. I
24 don't want to mislead you in terms of what it was.

25 Q. Okay. All right. So let's walk through this
26 first of all. Under "Emerging Concerns" in the first

1 column "Describe any significant new studies, regulatory
2 changes, or press reports concerning this risk."

3 And as of this report in 2007 were there any
4 significant new studies, regulatory changes, or press
5 reports concerning this risk?

6 A. Well, what's reflected here is the fact that
7 apparently 2007 was expected to be a particularly dry
8 year.

9 Q. Why would that affect the risk?

10 A. Because there would be an increase in
11 combustible fuel in the service territory.

12 Q. All right. So next up there's a -- the next
13 section is "Progress on Existing Risk Management
14 Activities." And explain to us what this means. What is
15 progress on existing risk management activities?

16 A. I think it's just that. I think the author here
17 was trying to characterize what's been done on the
18 activity that had been outlined for the urban wildfire
19 risk. So it's kind of where things stand as it relates
20 to some of the action items under the urban wildfire
21 risk.

22 Q. Okay. And then in the next section or going
23 down a section to metrics, if you can explain to us what
24 metrics are.

25 A. So there should be metrics or measurements
26 associated with the activities or ways of assessing the

1 risk. And we want to make sure that you're bringing data
2 to the work wherever you can.

3 Q. And the risk owner's assessment -- what is that?

4 A. So the risk owner -- in this case it would be
5 me. There should be a message that says here from the
6 risk owner regarding the risk for the Enterprise Risk
7 Management Committee and the chief risk officer.

8 Q. And what was the risk owner's assessment at this
9 time?

10 A. It says "We are making progress in addressing
11 this risk. The identification of specific urban wildland
12 interface areas provides us with a basis recommending any
13 actions that will take place in the identified areas.
14 However, more focused attention is needed to ensure we
15 meet our milestones for many of the actions."

16 Q. So we never did address -- well, and then --
17 let's go back. Then pages 4 through 8 are a chart.

18 A. It's an eye chart.

19 Q. And what's an eye chart?

20 A. Well, they have a very small font so it's not
21 for old people like me.

22 Q. So you just give us a high level overview of
23 what this chart is.

24 A. So every risk -- in this case, every urban
25 wildfire -- has a lot of proposed actions that need to be
26 taking place on some frequency or some basis. And so

1 this is the laundry list of all the different items
2 relative to urban wildfires that have been outlined.

3 Each one has a different deliverable or
4 different set of activities that needs to take place.
5 And this chart will describe the action area. The header
6 says "Ease of implementation," the value of doing that
7 particular item.

8 I can't read the next box. I could read the
9 presentation, I hope. No. That means estimated cost.

10 Interdependencies. So if there are
11 interdependencies for that work to be done, you are
12 depending on another work group or other organizations.

13 Proposed metrics. What are you proposing to
14 measure on that item? You know, whether you're making
15 progress or failing.

16 Responsible persons. Status, overall status at
17 that moment in time, and then the milestones associated
18 with the last column.

19 Q. And what does milestones means?

20 A. The significant items that need to be
21 accomplished by a certain time in order to show progress
22 on achieving that particular item.

23 Q. Okay. It looks like at least for the urban
24 wildfire that the entire first page and first couple of
25 columns or rows, the second page, all have to deal with
26 electric T&D equipment failures. Is that correct?

1 A. That's what it says, yes.

2 Q. So is it safe to say by the time you started in
3 2007 that urban wildfires started by PG&E equipment
4 failures was a major concern for the company?

5 A. Yes.

6 Q. Okay. Now, we'd asked a little bit earlier
7 about what is an urban wildfire. Can you explain that.

8 A. I can't remember the textbook definition, but
9 fundamentally it was limited areas where you had an urban
10 environment. So higher density of population of people
11 with homes that was kind of interfacing with a
12 mountainous, high-vegetative growth geography. And so we
13 had an overlap of a lot of people and fuel.

14 You identified pieces of geography that
15 represented the greatest risk. And I think the best
16 description I could have -- at the time I think what I
17 recall hearing was this risk was somewhat related when it
18 started to the Oakland fires where you had a lot of
19 people living in close proximity in a dense environment,
20 mountainous area, a lot of growth.

21 Q. All right. Let's move on to 684. That should
22 be a big packet there in front of you. See 684?

23 A. Yes.

24 Q. Do you recognize 684?

25 A. No. I mean, I recognize the name, but I don't
26 remember all the details here.

1 Q. Okay. Well, we'll start walking through it.

2 First up, "2008 Utility Offsite Strategy
3 Discussion May 8, 2008."

4 So do you recall attending a utility offsite
5 strategy discussion about in May of 2008?

6 A. You know, I remember a strategy discussion
7 roughly at that time. It was right when I showed up. So
8 it was -- no. It was a year after that. I think this
9 was conducted by Bill Morrow, if I recall.

10 Q. Okay. This is a 200-and-something page
11 document. We're not going to go through all of it.

12 A. I had a lot of 200-page documents. That doesn't
13 make it significant.

14 Q. Yep. So I want to go to page 5 of the document,
15 page marked "PG&E's strategy."

16 A. Got it.

17 Q. Could you look through that and tell us if that
18 looks familiar.

19 A. No. I don't recall it, but I can read it
20 so . . .

21 Q. Okay. Does that sound familiar in terms of
22 PG&E's overall strategy around 2008?

23 A. It sounds very much like, yeah, what would be
24 discussed about that time.

25 Q. Okay. Let's move on to page 6 "Translating
26 Strategy to Action." Can you see that page?

1 A. Yes.

2 Q. Can you explain this page for us.

3 A. So if you look at the left-hand side, you've got
4 the broad categories. At the top is "Vision: The desire
5 to be a leading utility in the U.S.

6 Goals: Customer loyalty in the top decile.

7 Environmental leadership: Top decile.

8 Employment engagement: Top decile.

9 And shareholder return: Top quartile."

10 Q. What does it mean to be in the top decile or top
11 quartile?

12 A. I think top decile is the top ten in the United
13 States. I think that was kind of more likely -- you
14 know, similarly situated utilities in size and
15 complexity.

16 Q. So the company was -- their goal was to be in
17 the top ten percent of the top 25 percent?

18 A. Basically speaking, yeah. I don't know if
19 that's quartile.

20 Q. What does "shareholder return" mean?

21 A. Whatever their shareholder targets were, I would
22 assume, or whatever goals they communicated to the
23 street --

24 Q. Okay.

25 A. -- in terms of shareholder return which would be
26 the price appreciation of stock and/or earnings returned

1 to shareholders.

2 Q. Okay.

3 A. I'm not the financial guy so you'd have to talk
4 to the financial executives.

5 Q. Right.

6 And then there's a bunch of things called
7 imperatives.

8 A. The imperatives would be a set of priority
9 areas, you know, broad priority areas. And then specific
10 business priorities, I guess, is below that.

11 Q. Okay. And listed as customer satisfaction,
12 improved reliability, organization performance, benefits
13 of transformation, and earnings and growth.

14 A. Correct.

15 Q. Do you know what earnings and growth would refer
16 to?

17 A. Just what I referred to. Just earnings would be
18 earnings as it relates to how the business is measuring
19 itself and reporting to Wall Street. And earnings
20 growth, I assume, is what the growth component is
21 referring to.

22 Q. All right. Next up page 7. If you can explain
23 the chart for us, please.

24 A. Okay. Just for the record, I didn't produce
25 this document. So I'm not sure who actually developed
26 this. So I'm giving you kind of how I read it. I'm not

1 necessarily -- I'm not the guy that made it up.

2 Q. Right. No. We understand.

3 A. So this is a strategic planning architecture.
4 So I guess this is a way of thinking about the strategy
5 of the business. And it starts with competitors. And
6 when you have a utility that's got a franchise, you don't
7 really have competition within your service territory
8 because you have a franchise for it.

9 So the surrogate for competition is the
10 regulator, regulations, and legislation and technology.
11 Those are the two sources of competitive forces. Also
12 input costs, supply. So the cost of energy, the cost of
13 fuel, gas, you know, methane, customer demand. So those
14 four drivers are kind of the competitive forces.

15 I think it's kind of an academic model for
16 thinking about competitive forces usually made for
17 competitive businesses. This is not really a competitive
18 business. So we have to adapt it.

19 Then the next box says "which must be addressed,
20 managed, and executed by PG&E employees and management."
21 So those are the folks that deal with those drivers.

22 "In the context of best meeting the needs of the
23 stakeholders we serve." Shareholders and customers.

24 Q. All right. Let's move on to page 45. And there
25 are numbers on the bottom of the pages, but there are
26 multiple presentations so . . .

1 A. Okay. So it's --

2 Q. So the numbers system is just based upon -- we
3 can go from the big board if you want.

4 So objectives for the May 8th and 9th offsite.
5 What was -- what were you trying to accomplish or what
6 was PG&E trying to accomplish with this meeting?

7 A. I think the executive that was running the
8 meeting said that -- I think it was Bill Morrow, if I
9 recall. I could be wrong.

10 The discussion and debate around the 2009
11 through '11 strategic imperatives and utility business
12 priorities. And what that means is how we run our
13 business and to generate input to be used in creating
14 planning guidelines for the '09 through '11 planning
15 process.

16 Q. Okay. Now, go ahead to page 47. So two more
17 pages. "Ground rules for discussion." And there's two
18 different areas there; what is up for debate and what is
19 not up for debate.

20 So let's start with what is not up for debate.
21 Tell us what topics were not up for debate at this
22 conference.

23 A. Eight percent earnings for shared growth and
24 legislative and regulatory activity.

25 Q. What is 8 percent earnings per share growth?

26 A. It's a target.

1 Q. What do you mean target?
2 A. It's an earnings target.
3 Q. Earnings for who?
4 A. For the stock. It's PG&E's --
5 Q. So --
6 A. -- financial performance.
7 Q. So that refers to how much money the
8 stockholders are going to earn off of their PG&E stock
9 during the year; correct?
10 A. Correct.
11 Q. And that's not up for debate?
12 A. Correct.
13 Q. But what is up for debate?
14 A. The '09 through '11 -- 2009 through '11 business
15 priorities, metrics and targets, program and project
16 trade-offs, input on strategic imperatives. Other topics
17 including safety, reliability, productivity, labor
18 strategy, outside-of-the-box ideas, use of outsourcing.
19 Q. Okay. So basically what you're being told here
20 is "We're not going to debate 8 percent growth. That's
21 off the table. But we are going to debate things like
22 safety, reliability, and productivity." Correct?
23 A. Correct.
24 Q. Okay.
25 A. But people that establish the earnings growth
26 targets aren't in the room.

1 Q. Who is in the room?

2 A. It looks like the utility executives.

3 Q. Okay. Including you?

4 A. Including me. I believe I was there.

5 Q. All right. And page 54 again, what we're trying
6 to accomplish.

7 Now, page 55 we have a repeat of what's up for
8 debate and what's not up for debate. The same as we just
9 read; correct?

10 A. Correct.

11 Q. All right. Let's go on a little bit.

12 A. And again, just so you're clear, what is up and
13 what is not up for debate of the earnings is a target
14 established by the board of directors so . . .

15 Q. Right.

16 A. So the group of people in that room don't have
17 the ability to make that call.

18 Q. You're stuck with it no matter what?

19 A. Correct.

20 Q. Figuring out how you're going to get to that
21 8 percent and how you're not going to reduce that
22 8 percent?

23 A. Well, to the extent that it falls in the areas
24 that we are responsible for. I think you would need to
25 have the CFO here talking to all the different -- because
26 this is a corporate target, not the utility's target. So

1 it was a corporate umbrella, okay, not just the utility.
2 And there's different sources of how you arrive at an
3 earnings target.

4 Q. All right. We're going to skip through the rest
5 of this, I think. Oh, we'll go to page 147. Again, more
6 on the EPS. I was wondering if you could explain any of
7 this to us.

8 A. So this chart is called "Objectives." This is
9 being presented, the prior page, by Barbara Barcon who
10 was, I think, the utility CFO. I'm not sure. I think
11 that was her role. So she was presenting the shareholder
12 perspective. So that's what these objectives are are
13 the -- I guess pursuant to the shareholders' perspective.

14 So she was going to describe why earnings share
15 growth is important, explain how that growth target was
16 established, highlight how functional areas impact the
17 earnings per share growth, quantify the earnings
18 challenge over the next couple of years, and discuss what
19 we must do to meet that earnings challenge.

20 Q. Okay. All right. Here's another one. "Ground
21 rules reminder." Again on page 162 what is up for debate
22 and what is not up for debate.

23 A. Got them.

24 Q. Any idea why this would be -- this slide
25 basically -- or this -- the up-for-debate and
26 not-up-for-debate would be repeated over and over and

1 over again during this presentation?

2 A. I guess so that the officers in the room would
3 be complaining about the financial target.

4 Q. Okay.

5 A. I assume that had already been communicated to
6 the street or perhaps it was public.

7 Q. Okay. Now, you were present at this conference;
8 correct?

9 A. I believe I was.

10 Q. And I want to ask you about some statements that
11 were attributed to you, if you remember them, and, if you
12 don't, what you think about the statement itself.

13 Okay. Is it true that at this meeting you told
14 everybody in attendance that you had concerns about the
15 methodology that was used for assessing risk at the
16 company?

17 A. I may have. I don't remember saying it.

18 Q. Was that consistent with your beliefs at the
19 time?

20 A. I think it was.

21 Q. Did you tell everyone that based upon your
22 review of the Enterprise Risk Management System or
23 Enterprise Risk Management, everything in Enterprise Risk
24 Management was broken?

25 A. I don't recall that statement.

26 Q. Is that consistent with your beliefs at the

1 time?

2 A. No. That sounds more like a system safety risk
3 which we've already kind of touched on.

4 Q. Okay.

5 A. If you read the detail on that, it identifies
6 virtually every aspect of the transmission and
7 distribution organization in terms of a source of risk.
8 And so my concern with that kind of statement is if
9 everything is important, than nothing is important.

10 So, yeah, we had these complex charts that
11 showed everything needed to be addressed, but that
12 doesn't help fixing things. And that was my complaint.

13 Q. Okay. Did you tell everyone at the meeting that
14 in your opinion PG&E lived in a world of isolation?

15 A. I don't remember that at all. It sounds like
16 me.

17 Q. Was it consistent with what you were thinking
18 around 2008?

19 A. I don't remember what I was thinking in 2008.

20 Q. Do you remember or did you say to everybody that
21 PG&E had adopted a culture where it did not want to hear
22 bad news?

23 A. Again, that sounds like me, but I don't remember
24 what I was saying or doing at that particular conference.
25 But again, that sounds like something I would say.

26 Q. And is it consistent with what you believed at

1 the time?

2 A. Again, I don't remember. But if you go back to
3 my earlier chart that we talked about, my observations
4 and challenges, it's consistent with that. So I would
5 say it's not inconsistent with what I was saying.

6 Q. Yep. And did you say that based upon your
7 review of the methodology that was used to do risk
8 assessments for the company, that there was no fix that
9 you saw that could be had?

10 A. I'm not sure I even understand that.

11 Q. So as part of your authority over risk
12 management you went through and assessed what the company
13 was doing at that point; correct?

14 A. For transmission and distribution?

15 Q. Right.

16 A. I would never say there was no risk. I meant no
17 fix possible.

18 Q. Okay.

19 A. But if I was referring -- again, I don't
20 remember saying that. But if it refers to something like
21 system safety where they're basically declaring that
22 everything needs to be addressed, then that's not easily
23 fixable. If you have to boil the ocean, if you have to
24 fix everything, then that's too broad to actually take
25 specific action.

26 Q. Okay. So it would be more consistent to say

1 that with the existing methodology there is no way to
2 fix --

3 A. Correct. We needed --

4 Q. They need to fix the methodology?

5 A. Correct. What I wanted was a methodology that
6 boiled things down to fewer things that we could address
7 and make progress on that would have an impact on the
8 system safety instead of a thousand things, ten things.
9 You know, just something that could give us better focus.

10 Q. That's a good word. You wanted focus, not
11 generalities; correct?

12 A. Correct.

13 Q. And was that a consistent theme of your time --

14 A. Yes.

15 Q. -- and your beliefs while you were at PG&E?

16 A. Yes.

17 Q. All right. Next up let's go to 685. Do you
18 recognize what 685 is?

19 A. Broadly, yes.

20 Q. What is 685?

21 A. I believe, if I recall correctly, that we had an
22 obligation in T&D every year to give a five-year Capital
23 and Expense Asset Management plan to finance so that
24 finance can look at long-term capital needs to fund the
25 business.

26 They're doing this with every organization.

1 They're asking for five-year capital expense assessments
2 so they can -- on their asset management plans because
3 that's really what is driving the business is the assets
4 that you have in place.

5 What you're planning at a broad level, at a high
6 level is so that can begin to get a feel for what the
7 capital demands of the business may be among other things
8 and expense.

9 Q. Yeah. There's some highlighting and some notes
10 throughout this document. Is that your work?

11 A. I don't remember whose -- I don't know if I did
12 that. I would highlight, but I don't -- the one on
13 page 06 -- 206 where it says "issue," that's my writing
14 so . . .

15 Q. Okay.

16 A. So I would say, yeah, it's very likely that I'm
17 the guy that is highlighting. If you ask me why the
18 different colors, I have no idea.

19 Q. All right. There's some terms they use in here
20 I want to ask you about. For instance "CAPex."

21 A. Capital. Capital. It's a category of money for
22 a business.

23 Q. Okay.

24 A. Usually.

25 Q. So is that capital expenditures?

26 A. Yes.

1 Q. Okay. So CAPEX is capital expenditures.

2 A. OPEX would be operational expenditures.

3 Q. Okay.

4 A. From an accounting standpoint that would be
5 expense items.

6 Q. What's the difference between all of those
7 different things in your experience?

8 A. Again, you're best talking to a CFO or financial
9 CPA or somebody. But it's again you fund the business
10 through capital. Your investments typically are on the
11 capital side. And when you have assets that are being
12 deployed with capital, those asset items have
13 depreciation life and so they depreciate over the course
14 of years. And every asset has a different life assigned
15 to it based on what the regulators permit. Okay. So
16 it's a way of accounting for recovery of the costs on
17 your capital investment items.

18 Operational expenses not amortized over years is
19 recognized in the period that you're taking that
20 expenditure. So salaries typically aren't expenditures
21 for that year. You know, fuel for your vehicles is an
22 expenditure -- operating expenditure for the current
23 period. You don't amortize that over time.

24 Q. Okay. So I wanted to highlight a couple of
25 things in here. And this is on page 32 which on the BAIT
26 stamp would be page 231.

1 A. Okay.

2 Q. And this is under "Electrical Transmission and
3 Line Maintenance." See that?

4 A. I see the line maintenance, yes.

5 Q. Okay. In the middle of that paragraph it states
6 "A majority of the installed transmission infrastructure
7 is over 40 years of age and is beginning to require an
8 increased amount of maintenance due to equipment
9 condition." See that sentence?

10 A. Yes, I do.

11 Q. Now, this is in 2007; correct? This is . . .

12 A. Yeah, I see that. This was in May of 2007.
13 That's when it was produced.

14 Q. So safe to say that at that point in time there
15 were already concerns about the age of the transmission
16 infrastructure?

17 A. Yes. I would think that we had concerns in all
18 categories of infrastructure, distribution, gas, and
19 electric.

20 Q. Okay. In your time with PG&E and in your
21 position of PG&E, was that a big worry?

22 A. Yes.

23 Q. Both?

24 A. Well, it was a big worry for those in T&D.

25 Q. Yeah.

26 A. And it was incumbent on me to explain that to

1 the rest of the business so there was a good
2 understanding.

3 Q. Okay. And then it goes down and says "Going
4 forward new programs will need to be initiated and
5 current programs expanded to address structure,
6 foundation, conductor, line hardware, and insulator
7 issues associated with the 60/70kV, 115kV, and 230kV
8 systems." Is that correct?

9 A. That is what it says.

10 Q. So again, were you familiar with any programs
11 that were in place in 2007 to address those issues with
12 regard to the 115 kV transmission lines?

13 A. I don't recall specifically. We had hundreds of
14 programs and hundreds of projects scheduled in all
15 categories. So I don't remember specifically what was
16 outlined.

17 Q. All right.

18 A. The information is attainable. I just don't --
19 I couldn't tell you.

20 Q. Where would you go to obtain it do you think?

21 A. To the asset managers, the people that are
22 responsible for the asset categories.

23 Q. Were you familiar with a program within PG&E
24 something to the effect of the deteriorating towers
25 replacement project or --

26 A. Not specifically. I mean, if that -- we had

1 issues with towers and assessments and making sure
2 that -- that, you know, footings weren't eroding and
3 there wasn't corrosion. That was a concern that we were
4 addressing more closely and measuring so we knew what
5 needed to be addressed first, second, and third.

6 Q. All right. If we go on to the next page page 33
7 and down under "New capital replacement work for 60/70kV
8 115kV, and 230kV systems will include --"

9 Do you see that?

10 A. I'm sorry. Where?

11 Q. It should be the following page.

12 A. Got it.

13 Q. Got it? So this is new capital expenditure work
14 that is being -- supposed to be done over the next five
15 years. Am I understanding that right?

16 A. Yeah. That's -- I guess that depends on what
17 you mean by "done." This is looking at a block of time.

18 Q. Right.

19 A. Okay. And these programs could span decades.
20 So these were categories of work that the investment
21 needed to be made over that timeframe 2008 and 2012, but
22 I think it would be incorrect to assume that in 2012 it's
23 all done.

24 Q. Okay.

25 A. There's just a need for incremental new spending
26 in those areas to begin in 2008, 2009. I don't know how

1 much progress was being -- could be made or would be
2 made.

3 Q. And whose job would it have been to push these
4 initiatives forward and make sure that these jobs at
5 least were on track?

6 A. Primarily engineering. Typically, the asset
7 manager working in conjunction with the line field
8 getting the right kind of assessment data, looking at
9 their asset responsibility areas, and getting the data
10 they need to characterize what they require in terms of
11 funding and, you know, condition and what needs to be
12 done.

13 Q. Okay. And number one on that project in the
14 first bullet point "Tower replacement due to steel
15 corrosion associated with age, environment, and direct
16 buried structures." Is that correct?

17 A. Right. That's what the asset manager outlined
18 there, correct. Now, that's not listing projects.
19 That's just listing a category of things that need to be
20 done.

21 Q. Right.

22 Okay. So let's move on to our next exhibit
23 Exhibit 686. Do you have 686 in front of you?

24 A. Yes.

25 Q. Do you recognize 686?

26 A. Well, I'm not sure. I may have reviewed this.

1 This is dated October of 2006. So I wasn't an employee,
2 but it was my habit to read all historical data on
3 anything that I was responsible for. So I probably read
4 this, but I can't tell you for sure unless you have my
5 note summary here or highlights that I did.

6 Q. Well, we know that by May of 2007 -- so a month
7 into your employment with PG&E you were in charge of the
8 urban wildland fire?

9 A. Correct.

10 Q. And so this had been a few months before you
11 started? Six months before you started; right?

12 A. Correct.

13 Q. So what do you think the chances are that you
14 probably reviewed this?

15 A. Pretty high.

16 Q. All right. So I want to go through a couple
17 things here. We've got the overview, the definition of
18 risk.

19 Can you read us what the definition of risk is.

20 A. "Risk from wildfires in urban interface areas
21 with high population densities and difficult geographic
22 terrain resulted from PG&E activities and/or asset
23 contact with vegetative fuels."

24 Q. And what is an urban wildland interface area?

25 A. So you could have a database that shows land
26 morphology makeup, that kind of terrain, the complexity

1 of the terrain, the altitude, the makeup of the forest,
2 brush, you know, whatever. And you overlay population
3 data on that same terrain and you begin to look where
4 there is an overlap between the high-fuel areas and the
5 high population density areas, and that's what this risk
6 is attempting to address is those areas.

7 Q. And how does this document define the urban
8 wildland interface area?

9 A. I don't recall specifically other than what you
10 would read here.

11 Q. Right. Go ahead and read it.

12 A. "Urban wildlife interface areas and geographical
13 areas where structures and other human developments meet
14 and intermingle with wildland or vegetative fuels."

15 Q. And there's also a definition of wildfire.

16 A. "A wildfire is an uncontrolled fire spreading
17 through vegetative fuels, damaging and possibly consuming
18 structures."

19 Q. All right. And we talked a little bit earlier
20 about in and out of scope.

21 A. Yes.

22 Q. And what are scope assumptions?

23 A. So within the scope of the work that you're
24 doing, you're trying to characterize specifically which,
25 I guess in this case, systems are going to be included in
26 that assessment or network. So in this case an example

1 says "This is going to include gas distribution and
2 equipment for the purpose of emergency response."

3 Q. Okay.

4 A. I think that relates to the wildfire. There
5 were issues with gas distribution. So as meters were
6 burned off structures, you have gas flowing and that
7 aggravated restoration.

8 Q. Now, the next section is entitled "Context."
9 Could you read that to us, please.

10 A. "There is an extremely low probability that
11 PG&E's activities or assets caused an urban wildland
12 vegetation fire as demonstrated by PG&E's history of
13 never having caused any such fire and by our many
14 existing programs that mitigate this risk. This effort
15 has, however, preliminarily identified several areas
16 where further action may be worth considering referring
17 to as potential gaps."

18 Q. Do you remember reading this in 2007?

19 A. No. I'm sure I did.

20 Q. Does it sound at all familiar?

21 A. No, but it was -- it was a statement that, like
22 many statements in these programs, there are risks. I'm
23 not sure of its accuracy or what it's based on. So I
24 would ask for data, you know, to kind of help me
25 understand why this is the conclusion that is being
26 reached.

1 Q. Okay. I was going to say do you recall ever
2 asking anybody about the statement "PG&E's history of
3 never having caused any such fire"?

4 A. I find that hard to believe. So, you know,
5 it's . . .

6 Q. All right. So let's move on and try to get
7 through this a little quick.

8 There is one other thing I wanted to bring up on
9 here. Again, potential gaps. If you could read this for
10 us.

11 A. What page is it?

12 Q. Eleven. Or -- yeah, 11. Hey, these page
13 numbers actually jive.

14 A. "Despite the very low probability in urban
15 wildlife fire and the existing actions by PG&E to
16 mitigate this risk, the team along with the group of
17 subject matter experts from the field has preliminarily
18 identified 15 potential gaps where further actions may be
19 worth considering."

20 Q. Do you understand what that means?

21 A. It means that a group of people thought that
22 there were things that they felt needed to be addressed
23 in spite of the declaration that there's low probability
24 of a wildland fire.

25 Q. Okay. So I want to go to page 13. And this is
26 called potential gaps. And under "Proposed Solutions"

1 see the one that says "replaced parallel groove
2 connectors"?

3 A. Yes, I do.

4 Q. Are you familiar with parallel groove
5 connectors?

6 A. I mean, the word is descriptive. I don't
7 remember anything unique or particular about the item
8 here. That's why I have a question mark next to that.
9 When I read this, apparently I needed to do follow-up to
10 see what the hell a parallel groove connector was.

11 Q. Okay. I think that's all we'll go through in
12 this.

13 All right. So let's move on to the next
14 Exhibit 687. So now we are skipping ahead a little bit.

15 Do you recognize 687?

16 A. No. I mean, I recognize the document we see.
17 It's not one that I recall the details on, but I could
18 speak to it if you --

19 Q. Absolutely. If you can speak to it, tell us
20 what this is.

21 A. This is dated January 19, 2010. So it's a
22 summary document that would go to the executive
23 management committee. And it was an update on this
24 particular risk and where we stand based on 2009
25 activity.

26 Q. Okay. And at this point in time you're the risk

1 owner over the urban wildland fire risk; correct?

2 A. Yes.

3 Q. Okay. So go ahead and explain the document to
4 us.

5 A. You want me to read it? Is that what you're
6 asking?

7 Q. No. Just in general tell us what it is.

8 A. Well, like I said, it's a summary. So this goes
9 to the definition so that the others that are going to be
10 reviewing this document have an idea as to what it
11 represents. And so the third paragraph down talks about
12 using Cal Fire criteria and the locations, the geography
13 that were included were the highest density areas from a
14 population standpoint.

15 [Court reporter interrupts.]

16 THE WITNESS: Oh, I'm sorry.

17 So again, just the higher density population
18 areas that overlapped with the vegetative fuel
19 conditions.

20 BY MR. NOEL:

21 Q. So are we now -- have we now limited the urban
22 wildland fire interface to the East Bay Hills, the Marin
23 County Hills, part of the Peninsula, and Folsom?

24 A. It was limited to the areas that met the highest
25 density of people over the territory.

26 Q. Okay.

1 A. And so I think the intent was to begin moving
2 through. So as you work on the highest density areas and
3 completed whatever mitigating work you're going to do,
4 you would then expand that to include the next area and
5 the next and the next assuming your activities have
6 favorable impacts.

7 Q. Right.

8 A. And so does this define scope?

9 Q. Yep.

10 A. Out of scope. We talked about some of those.

11 Q. What does UWIA mean?

12 A. Urban wildland interface area.

13 Q. Okay. And then out of scope are wildland fires
14 caused by gas and electric transmission and distribution
15 facilities located outside the urban wildland interface
16 area?

17 A. Correct.

18 Just to be clear, it doesn't mean that we are
19 not doing work out of those areas. Enterprise Risk
20 Management activity represented a thin layer of activity
21 for the utility T&D. So this is just a more global look
22 based on the criteria the corporation had for an
23 enterprise risk. It doesn't mean that there wasn't these
24 risks dealt with in the field day to day because that's
25 kind of what the field would do in line engineering.

26 Q. Okay.

1 A. So this is just for the Enterprise Risk Program.

2 Q. But, for instance, Paradise/Magalia would not be
3 considered an urban wildland interface area; correct?

4 A. No. It could very well have been. I
5 would assume it would have been, but it wouldn't have
6 been within the highest density areas as compared to the
7 others. So there would have been in some document, a
8 document that reflects a population density in that
9 geography along with the presence of the right vegetative
10 fuel makeup.

11 Q. Right. Now we go on to page 2. There's a list
12 again of owners and responsibilities. It lists you as
13 the risk owner.

14 A. Correct.

15 Q. And then supporting officers, risk manager, all
16 the rest?

17 A. Correct.

18 Q. All right. Let's go down to current mitigation
19 activities. And the activities -- these are activities
20 that were currently being done at the time this was
21 authored to mitigate the fire risk in the urban wildland
22 interface areas?

23 A. Correct.

24 Q. Do I understand that right?

25 A. Yes.

26 Q. Okay. All right. Let's go on to the next

1 Exhibit 688.

2 A. So this is --

3 What do you want me to do?

4 Q. First of all, do you recognize this document?

5 A. Again, no. I read these sorts of documents so I
6 know what it is, but I don't recall the details of this.

7 Q. Right.

8 A. So once a year there was an exercise that the
9 senior officers of the business went through to rate and
10 rank all of the risks that faced -- the enterprise faces
11 and then arrive at, you know, ultimately the top ten.

12 The -- most of the officers participated in kind
13 of making the case, laying out the risks as they might
14 characterize them, but the ultimate decision, as I
15 recall, was made by the chairman, the risk officer, and
16 maybe the CFO or the chief operating officer.

17 So the actual decision making on which of the
18 ten risks ended up on the list to make this part of the
19 top ten, that wasn't a vote necessarily among the people
20 that were working on it.

21 Q. Okay. So the executive management committee,
22 who is that?

23 A. It's typically the senior officers of the
24 business from all different lines of the organization,
25 you know, from customer service to finance to T&D,
26 generation, energy procurement, all the -- customer care,

1 all the lead officers.

2 Q. Okay. So were you on the executive management
3 committee?

4 A. Yes, I was.

5 Q. All right. And then who is Enterprise Risk
6 Management then?

7 A. I don't remember who the lead officer was in
8 2010.

9 Q. Okay. So what would this risk review report be
10 used for by the executive management committee?

11 A. I think this was used to formally communicate
12 what the top ten were for the coming year.

13 Q. Okay.

14 A. So the risk owners would know who they are.

15 Q. And the urban wildland fire risk was one of
16 those top risks?

17 A. Yes.

18 Q. Okay. Let's move on to 689. And what is 689?

19 A. This looks like a board update, something going
20 to the finance committee. So it's a subset of the board
21 of directors and different committees on that board.
22 This is, I think, going to the finance committee. And so
23 the practice, as I recall, to the risk owners -- or at
24 least I remember I had to. Periodically, whenever one of
25 my risks that I was responsible for was due to be
26 reviewed by the board of directors, I would do it. I

1 would show up and walk them through a high-level summary
2 of the activity and where we stand.

3 Q. All right. So it says "Over 30 candidate risks
4 were identified for possible inclusion in the program.
5 The top ten risks were selected by a panel of senior
6 officers for inclusion in the program."

7 A. Correct.

8 Q. So this would be the next step in the program?

9 A. So one top ten we looked at that in the previous
10 document.

11 Q. Right.

12 A. What that top ten was. So this is simply a
13 document that is communicating that to the board of
14 directors. Or the finance committee, not actually the
15 whole board. At least I didn't see any.

16 Q. And this includes again the urban wildland fire
17 risk?

18 A. Yes, because that was one of the top ten, I
19 believe.

20 Q. Okay.

21 A. It's the same. Both the energy procurement risk
22 and the wildland fire risk have been updated since they
23 were last discussed in April of 2007 and December of
24 2006.

25 Q. And again, it goes down to risk drivers listed;
26 transmission and distribution equipment failure,

1 equipment contact with vegetation, and inadequate
2 response by PG&E to a fire regardless of the source of
3 the ignition; correct?

4 A. Correct.

5 Q. All right. I think we'll get to the last
6 Exhibit 690. What is Exhibit 690?

7 A. This is dated July 2010. And this is, I guess,
8 a risk review summary document that's going to be sent to
9 the executive management committee.

10 Q. What does that mean?

11 A. The executive management committee was just
12 the -- kind of the group of senior executives that had
13 kind of global responsibility for the utility operation.

14 Q. All right. Now, if we skip ahead down there,
15 there's -- the third page turns into a PowerPoint.
16 There's a PowerPoint slide "ERM Portfolio of Risks."

17 A. Yes.

18 Q. What is the portfolio of risks?

19 A. That would be the top 10 or 7 of the risks that
20 are being included under the Enterprise Risk Management
21 Program.

22 Q. Okay. So the top ten are on the left. And then
23 what are the --

24 A. The risks are on the left in at least the
25 shorthand form. The owner is the next column.

26 Q. And then what is the third column under

1 "Significant Business Risks"? What does that mean?

2 A. I think -- I'm not sure I remember exactly other
3 than what it says. It just -- it looks like there were
4 other risks that were considered in that area that
5 aren't -- did not make the top ten, but I guess they
6 wanted to mention them for completeness so that people
7 understood that they were related or aggravating risks.

8 Q. Now, the next slide is entitled "Approach." If
9 you could take a look at that and tell us who is
10 approaching that we're talking about here.

11 A. This is the Enterprise Risk Management
12 executive. It is their staff that is responsible for the
13 whole enterprise and the approach that they're asking
14 each of these owners to take in addressing their
15 particular risk.

16 Q. Okay. And then skip to seven. Part of this
17 document there's another Enterprise Risk Management
18 System Safety Risk Review 2009/2010.

19 A. So I don't know if this is connected to that
20 same meeting in July of 2010, but this is just a
21 high-level review. This is the kind of review that would
22 have gone to the Enterprise -- I'm sorry, to the
23 executive management committee. If you didn't give them
24 the full blow-by-blow detail of all the work you were
25 doing, they wanted a more abbreviated document to
26 summarize what you're doing. And that is what this is.

1 Q. Then we get examples of in-scope events. And
2 some of those sound familiar. They're electrical,
3 transmission, and distribution system. Well, for gas
4 also.

5 A. Yes.

6 Q. "Explosion or fire caused by underground
7 equipment such as transformers or splices in vaults with
8 manholes."

9 That's the definition of the issue in San
10 Francisco, isn't it?

11 A. Correct.

12 Q. Now, the bottom one "Multiple explosions or
13 fires caused by aged equipment failure that PG&E had not
14 taken timely action to replace." Is that correct?

15 A. Correct.

16 Q. So that is something that is in scope there?

17 A. Yes.

18 Q. And was already a concern?

19 A. Yes.

20 Q. So as far back as 2007, 2008, 2010, the idea of
21 PG&E's aging infrastructure causing -- failing and
22 causing fires was a major enterprise risk concern;
23 correct?

24 A. Correct.

25 Q. Do you recall what was being done to mitigate
26 that risk?

1 A. We'd have to go through more hundreds of
2 programs, replacing assets, trying to prioritize asset
3 replacement. You could go through the regulatory filings
4 where the utility is seeking money or funds to go make
5 these changes and get that work programed in and
6 scheduled.

7 Q. But how were those decisions being made at the
8 time of what programs to go forward and where to spend
9 the money to replace?

10 A. The detail -- if you're asking at a high level
11 or a detail level, that is being done by the asset
12 managers that are responsible for the asset category.
13 They have the best knowledge working with again the
14 available data within the field, getting manufacturer
15 data, getting whatever -- whatever industry data might
16 exist, which wasn't a lot typically, to -- to best
17 characterize their priorities for what assets they need
18 to go after and with what urgency and then make sure that
19 we were filing for the funds. We need to do that with
20 the regulator as we move forward.

21 Q. We talked in the very beginning about the
22 difference between relative risk assessment and probable
23 risk assessment; correct?

24 A. Yes.

25 Q. Do you recall that?

26 Was relative risk assessment still being used to

1 make a determination which of those -- which projects
2 were going to be done?

3 A. I think it would differ by asset category. Some
4 assets lend themselves to getting data to be able to make
5 more intelligent and informed decisions. Other asset
6 categories you don't have a lot of specific data other
7 than maybe asset age, which is a very, very broad way of
8 looking at something that doesn't really reflect the
9 condition. So, you know, you may be relying more on
10 inspections to make an assessment.

11 So again, it's different for different asset
12 categories. Some of those are more detailed and data
13 driven. Others are more realistic in terms of how do
14 they look compared to other assets.

15 Q. Right. So when we went back to the urban
16 wildland fire interface areas and by 2010, if I
17 understand it right, the Bay Area Hills, the Marin County
18 Hills, and Folsom had already been jumped to the top of
19 that list and projects were being done before anywhere
20 else. Is that about correct?

21 A. I wouldn't assume that at all.

22 Q. Okay.

23 A. I think for the sake of the risk definition
24 those were being called out uniquely. But I think you
25 would have to get the details in terms of what actually
26 is being programed in all the others because 99 percent

1 of the work of the utility T&D is going on with
2 day-to-day business in terms of what programs are being
3 managed.

4 The enterprise risk is just one slice. It's a
5 way of looking at activity that is going on that's
6 largely broadly the same activity that's going on in
7 other places in the utility.

8 Q. Okay. A lot of that that we're talking about in
9 terms of the day-to-day stuff is being done by the
10 people; correct? The linemen, the groundsmen, the
11 towermen? Those kinds of people; right?

12 A. No. The physical work is getting done by those
13 people. The program in terms of their work activity,
14 their work packages are being driven by asset managers,
15 you know, by other processes of the business. So they're
16 not making up the work that they're going to go do.

17 Q. All right. It is past 4:30, and I kept you guys
18 way too late last week and got in trouble. So we will
19 finish it there. We appreciate it.

20 Oh, I forgot. Does the jury have any questions?

21 They do get to ask you questions. Sometimes it
22 gets late in the day and I forget.

23 [Conferring off the record.]

24 BY MR. NOEL:

25 Q. All right. There are a few questions from the
26 jurors themselves that I will read to you.

1 "With the issues that you found wrong with
2 PG&E's systems, did you implement new changes such as
3 training programs for employees, linemen, and troubleshooters
4 for gas and electric departments?"

5 A. Yes.

6 Q. What types?

7 A. A variety of types. We had a whole program
8 aimed to improving and upgrading our training. And we
9 established a whole training facility in San Ramon for
10 gas. We actually created a little mock community with
11 fake houses with gas pipes to train our folks what they
12 need to do when you have gas leak detections. They had
13 tools and other things. We did that on the electric
14 side.

15 I don't recall all of the programs, but we had a
16 number of trainings. There's data that exists that would
17 reflect that.

18 Q. Now, we have the same -- essentially the same
19 question from a couple different people which is "Why did
20 you leave PG&E after four years?"

21 A. After the San Bruno explosion my role was unique
22 largely across the United States. I had one executive
23 responsible for all engineering and operations for gas
24 distribution, gas transmission, electric distribution,
25 and electric transmission. Most utilities had one
26 executive for each one of those areas.

1 So I was -- they were going to restructure after
2 the San Bruno explosion, and the restructure was going to
3 introduce -- and they needed to -- they wanted to bring
4 in experts in each of those areas. Okay. Executives
5 that had worked in each of those specific disciplines.
6 And so my role was getting kind of taken apart to take a
7 whole different, more traditional look at it.

8 Most utilities would have each functional group
9 be separate. And they offered a job that I was not
10 interested in. And so we elected to part company.

11 Q. Do you know if Jack Keenan is still the COO of
12 PG&E?

13 A. He's not. He left roughly the same time I did.

14 Q. Now, in Exhibit 682, the first enterprise
15 problem -- there we go. The first enterprise problem was
16 the lack of a clear overall policy establishing a risk
17 assessment policy for PG&E.

18 Does such -- well, did such an overall clear
19 risk assessment policy exist for PG&E when you left?

20 A. I think it got better. It needed improvement.
21 I don't think it was perfect, but it had gotten a little
22 bit better over time.

23 Q. And then the rest of the question is as of 11/8
24 you don't know anything after you left; correct?

25 A. No, Sir.

26 Q. Do you believe that the Enterprise Risk

1 Management Program of PG&E while you were there had been
2 an effective tool in mitigating enterprise risks?

3 A. I think the vast majority of the work for T&D
4 was what happened day to day. And I think enterprise
5 risk allowed us to focus on some of the broader areas,
6 but I don't think in and of itself the enterprise
7 management was intended to fix the utility. It was just
8 to bring visibility to a certain slice of risk. And I
9 think we were --

10 Q. You keep talking. I'm just going to grab these.

11 A. We were concerned with the day-to-day risk that
12 needed to be managed. All of those impacted enterprise
13 risk. So it was -- I think people view enterprise risk
14 as really the driver of all improvement and risk
15 management. It wasn't. It was really a small slice
16 separate from the bulk of risk management to the
17 day-to-day that went on.

18 MR. NOEL: Anything further?

19 Mr. Salas, thank you. Madam foreperson will
20 have an admonishment for you again.

21 GRAND JURY FOREPERSON: Mr. Salas, you are
22 admonished not to discuss or disclose at any time outside
23 of this jury room the questions that have been asked of
24 you or your answers until authorized by this grand jury
25 or the Court. A violation of these instructions on your
26 part may be the basis for a charge against you of

1 contempt of court. This does not preclude you from
2 discussing your legal rights with your own attorney.

3 Mr. Salas, what I have just said is a warning
4 not to discuss this case with anyone except the Court,
5 your lawyer, or the district attorney.

6 Do you have any questions?

7 THE WITNESS: No.

8 THE COURT: Thank you for your time today.

9 THE WITNESS: Okay.

10 MR. NOEL: You are done.

11 [Exhibits 679 through 691
12 admitted into evidence.]

13
14 [DISCUSSION OMITTED.]

15
16 [Matter adjourned at 4:45 p.m.]

17 ---oOo---

COURT REPORTER'S CERTIFICATE

This is to certify that I, Lisa McDermid Welch, a Certified Shorthand Reporter of the State of California was present at the time and place the foregoing grand jury proceedings were had and taken in the within matter; and that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings; and afterwards caused my said shorthand writing to be transcribed into typewriting; and the foregoing pages, beginning at the top of Page 1 to and including Page 96 hereof, constitute a full, true, accurate, and complete record of the proceedings.

DATED: This 6th day of June, 2022.

[Lisa McDermid Welch](#)

LISA MCDERMID WELCH, CSR, RPR
CSR LICENSE NO. 10928

THE SUPERIOR COURT OF THE STATE OF CALIFORNIA
IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

REDACTED

BCSC-2019-GJ-01

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, DECEMBER 10, 2019

VOLUME 27

OROVILLE, BUTTE COUNTY, CALIFORNIA

LISA MCDERMID WELCH, CSR 10928, OFFICIAL COURT REPORTER

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1 OROVILLE, BUTTE COUNTY, CALIFORNIA

2 DECEMBER 10, 2019; 8:40 a.m.

3 (Confidential Special Grand Jury Hearing Proceedings)

4
5 [ROLLCALL OMITTED.]

6
7 [DISCUSSION OMITTED.]

8
9 MR. NOEL: All right. We're ready to go. The
10 first witness will be Greg Davis.

11 Does our Sergeant at Arms want to go out and get
12 him? I know it's your first day on the job.

13 [Witness enters the courtroom.]

14 GRAND JURY FOREPERSON: Mr. Davis, before you
15 have a seat, would you please raise your right hand to be
16 sworn in.

17 Mr. Davis, do you solemnly swear that the
18 evidence you shall give in this matter pending before the
19 grand jury shall be the truth, the whole truth, and
20 nothing but the truth so help you God?

21 THE WITNESS: I do.

22 GRAND JURY FOREPERSON: Thank you. Have a seat,
23 please.

24 THE WITNESS: Good morning.

25 MR. NOEL: Good morning.

26 **EXAMINATION**

1 BY MR. NOEL:

2 Q. Before we start, can you please state your full
3 name spelling your last name for the record.

4 A. My name is Gregory Mark Davis, Jr. Last name is
5 Davis, D-a-v-i-s.

6 Q. Mr. Davis, by whom are you employed?

7 A. I work for PG&E.

8 Q. In what capacity?

9 A. Currently I'm supervising a team of transmission
10 line engineers. It's my base job.

11 Q. Okay. First of all, are you an engineer
12 yourself?

13 A. I am, yes.

14 Q. Can you go through your education for us.

15 A. I've got a bachelor's degree from University of
16 California Berkley in engineering physics with a minor in
17 math.

18 Q. Okay. And how long have you been with PG&E?

19 A. I started with PG&E in 2005. So about 14 years,
20 14 and a half years.

21 Q. Would you walk us through your career with PG&E.

22 A. My first year of PG&E I was working in
23 estimating which was doing construction packages for wood
24 pole distribution work mostly hooking up telecom stuff
25 like AT&T or Comcast getting those companies hooked up to
26 small services here and there.

1 From there I moved over to the transmission line
2 engineering group as a project engineer. And in that
3 capacity I was in charge of putting together construction
4 packages for any work that is related to construction
5 that going to happen on transmission lines.

6 My area -- I covered most of the south; Fresno,
7 Bakersfield, San Luis Obispo for the most part. I worked
8 there until 2013.

9 In 2013 my boss retired, and I was promoted into
10 the supervisor position of that group. And so I worked
11 as a supervisor of the transmission line engineering
12 group from 2013 until late 2017 and was temporarily put
13 in rotation to lead a project management team from 2017
14 to 2018 in the north area. And after the Camp Fire
15 happened, I was moved over as a transmission line lead in
16 the litigation team in December of 2018.

17 Q. Okay. Now, you're here today as the PG&E
18 designated subject matter expert on historical documents
19 of the Caribou-Palermo line; is that correct?

20 A. That's correct.

21 Q. And you've done some research into the history
22 of the Caribou-Palermo line?

23 A. So from December of 2018 I had started doing
24 quite a bit of research into the documents related to the
25 Caribou-Palermo line.

26 Q. What type of research?

1 A. What are you looking for specifically on that?

2 Q. Does PG&E have a historical records library?

3 A. We formally had a historical records library
4 that was housed within PG&E. At some point that was all
5 moved offsite to Iron Mountain. And so all of the
6 historical documents which typically would be considered
7 a record for the line I believe would be scanned and put
8 into an electronic format and the hard copies would be
9 stored over at Iron Mountain.

10 Q. And what is Iron Mountain?

11 A. Iron Mountain is a third-party company that
12 holds hard copy records.

13 Q. So since December of 2018, just about a year
14 now, you have been the supervisor in charge of research
15 and the history of the Caribou-Palermo line?

16 A. I have worked with a small group of people, with
17 attorneys, some internal folks, not necessarily as a
18 supervisor though but lead position in doing research.

19 Q. Okay. So are you familiar with the CPUC data
20 request procedures?

21 A. Yes.

22 Q. What is a CPUC data request?

23 A. A CPUC data request would be a set of questions
24 that the CPUC would send over to PG&E. We usually get a
25 letter that had enumerated lists of questions asking
26 about specific things related to the Caribou-Palermo

1 line.

2 Q. What -- how do you come to be someone who's
3 answering data requests from CPUC?

4 A. As a transmission line engineering supervisor
5 having that history, understanding transmission lines in
6 general, the construction of them and standards around
7 them, I got pulled into that group to help answer those
8 questions.

9 So I would -- in that capacity if that was
10 something that was within my realm of expertise, I would
11 be able to help answer that question. Otherwise, I knew
12 lots of people that had that information and I could
13 reach out to them and find out, you know, how to get that
14 information together.

15 Q. So in other words, you're a subject matter
16 expert or you're a designated subject matter expert?

17 A. That depends on the specific question.

18 Q. Right.

19 A. Yeah.

20 Q. And so let's move right into it. You should
21 have in front of you what is marked as Exhibit 704.

22 A. Okay.

23 Q. Do you recognize Exhibit 704?

24 A. I see Exhibit 692. One moment.

25 Q. Oh, it should be at the end. I'm sorry.

26 A. 704?

1 Q. Yep.

2 A. "Question 7: Please provide a schematic of
3 transmission tower 27/222 with all the equipment shown
4 identified. Please indicate --"

5 Q. All right. Go ahead and look at it yourself.
6 Just look at it. And I'm going to ask you some questions
7 about it.

8 A. Okay. Yeah, I'm familiar with this.

9 Q. Okay. So just in general without getting into
10 specifics, what is Exhibit 704?

11 A. So in general the question was asked to
12 provide --

13 Q. Well, before we even get into the question,
14 just -- is this a CPUC data request and a PG&E response?

15 A. Yes, it is.

16 Q. Okay. So do you want to start off basically and
17 describe what these things are.

18 A. Okay.

19 Q. All right. Flip to the back page of this.

20 A. Sure.

21 Q. I believe there's a name there at the end.

22 A. Right. That's Amanda Maino.

23 Q. Who is Amanda Maino?

24 A. Amanda Maino was one of the folks that we were
25 working with in that data response unit with the
26 litigation team. She was acting as -- at the time that

1 we got pulled in there she was a transmission line
2 portfolio management person.

3 Q. Okay. What's a transmission portfolio
4 management person?

5 A. Probably ask Amanda a little bit more about what
6 her role was there. But she -- she -- you know, prior to
7 being in that role, she would give us a hard time about,
8 you know, how much money we were spending and what
9 direction. And if we said we were going to spend
10 something in a certain way and we did or didn't, you
11 know, she'd get on our case about it.

12 Q. So she's a budget person? A finance person?

13 A. Yeah.

14 Q. All right. Okay. So now that we've got the
15 generalities in, what was the question that was asked of
16 PG&E by CPUC?

17 A. So question seven was "Please provide a
18 schematic of transmission tower 27/222 with all the
19 equipment shown as identified. Please indicate the
20 equipment that the Cal Fire took as evidence."

21 Q. All right. And so this question came from CPUC
22 and was referred to the group that you were involved
23 with?

24 A. Uh-huh.

25 Q. Part of the Camp Fire litigation team you said;
26 right?

1 A. Yep.

2 Q. All right. So describe the response from your
3 group to CPUC.

4 A. So the response outlines all of the available
5 records that show this type of tower and the type of
6 equipment that would be installed on it.

7 Q. Okay. What records were reviewed, if you know?

8 A. What records were reviewed?

9 Q. Yes.

10 A. Oh, a ton of records were reviewed. Are you
11 interested in . . .

12 Q. If you could just in general describe for us the
13 process -- the review process that you go through to get
14 to this.

15 A. It seems it's a bit broad and general. But the
16 process we're trying to identify the records that were
17 associated with this, there was many different areas that
18 we'd go to find records. First of all, we have what we
19 call Documentum. It's the electronic database where we
20 can go in and search for documents on line. Most of our
21 records can be found in there.

22 Then we have the hard copies that I was talking
23 about at Iron Mountain. And there's hard copies that
24 were potentially in various other locations such as the
25 powerhouses up and down the Feather River Canyon, at the
26 local headquarters as well. And we went through a very

1 exhaustive search of running search terms, pulling boxes
2 from Iron Mountain.

3 I believe we pulled over a thousand different
4 boxes. We're talking bankers boxes where we take the box
5 out and look at each document inside of that to try to
6 see if what was in there was relative or not.

7 We -- in that process we came across these
8 indexes for GM orders. GM orders would be a list of
9 projects that were done over time. And these books
10 listed pretty much every project that had been authorized
11 from the 1920s into 1980s.

12 And so we searched every one of those lines with
13 every project that had happened in PG&E looking for
14 anything relevant to the Caribou-Palermo line. And when
15 we found something, we would go to that order number and
16 we'd search that order number and try to find boxes
17 associated with that -- with that order and we'd dig
18 through all of those as well.

19 Q. Okay. Was there more? I'm sorry. I didn't
20 mean to interrupt you.

21 A. Well, I mean, we did quite a bit of searching
22 and we went through a ton of documents, a ton of boxes,
23 found an extremely large amount of records associated
24 with the line.

25 Q. All right. So let's walk through the response
26 real quick. So PG&E understands transmission tower

1 27/222 in this question referred to tower 27/222 on
2 Caribou-Palermo 115 kV transmission line. That's how it
3 starts; correct?

4 A. Correct.

5 Q. And then to date PG&E has not found a schematic
6 of tower 27/222 with all equipment shown and identified.

7 So what does that mean?

8 A. That's pretty standard. Typically, in an
9 instruction package you're not going to detail out --
10 you're not going to create an individual drawing for
11 every structure that's out there. Instead, what
12 typically is going to happen is you'll have these
13 standard tower drawings, the standard configurations that
14 go along with that, and then typically there's some list
15 that shows how to put those together for that particular
16 location.

17 Q. All right. Then it goes on to say "PG&E is
18 producing schematics of type SB towers similar in design
19 to Tower 27/222 as well as drawings for the conversion of
20 type 'SB' tower into a tower matching the current
21 configuration of Tower 27/222." And then it lists these
22 drawings based on Bates numbers.

23 So what does "SB" mean? Do you know?

24 A. Yeah. The "S" stands for snow. It's a much
25 more robust type of tower to be able to withstand the ice
26 and snow loading that would occur in the mountainous

1 region. Most of our towers, you know, in the valley are
2 going to be the vertical in configuration where you see
3 three wires on top of each other. It might even have two
4 circuits. So you'd have six wires, two sets where you
5 have three in a vertical plane on both sides of the
6 tower.

7 These towers were designed to be up in the
8 mountains. So they're much stronger towers, and they're
9 also put into a horizon plane. Part of the reason for
10 doing that is because you can imagine that as snow and
11 ice might go on the wire, it will load it. It will start
12 stacking more. At some point that ice will unload and
13 snap up. If we had those arranged vertically, one of
14 those wires could snap up and hit the next wire up and
15 cause an outage on that line.

16 So these towers are the snow type. That's what
17 the "S" stands for.

18 The "B" was due to -- there's two basic kinds of
19 towers on this section of line. So this section of line
20 was originally part of the Caribou-Valona line. So from
21 Caribou to Big Bend.

22 Now that section of line there had two types of
23 towers; the "SA" and the "SB" for the most part. The "A"
24 was for the standard suspension types of towers. They
25 didn't need to be as strong because they had in insulator
26 string that was just holding the wire in place.

1 The "B" type towers were made to be able to
2 withstand conductors being dead ended to the tower
3 itself. So it had to be able to hold the strength of the
4 tension of the wire on the tower itself.

5 Q. All right. Then it goes on. "The drawings from
6 the original construction of the line also include
7 detailed diagrams reflecting components installed on at
8 least some of the towers on that line. Through review of
9 pictures of Tower 27/222 and in-the-field observations
10 PG&E has been able to match catalog numbers or other
11 identifying information associated with certain
12 components on the tower to those original diagrams."

13 And it goes on and then the next couple of pages
14 are a chart.

15 A. Yep.

16 Q. So can you explain to us the chart beginning on
17 page 2.

18 A. Sure. So --

19 The table you're talking about; right?

20 Q. Yes.

21 A. Yeah. What we've listed on here are all of the
22 components that we see that are attached on the tower.
23 Just overall what we're talking about is that there's the
24 tower steel itself that is -- that we call the tower. It
25 has the foundations. It has the stub, the extensions.
26 That's not necessarily what is being listed here. We're

1 talking about the hardware that's on there. We're
2 talking about the steel, the insulators, and then the
3 clamps that are holding the conductor.

4 So what we're looking at here is a list of all
5 of those individual components that would be attached to
6 the tower holding the conductor.

7 Q. So prior to the Camp Fire, did PG&E have a
8 list -- have an inventory of the components on Tower
9 27/222?

10 A. I'm not aware of a list of components on any
11 given structure. We have standards that show what needs
12 to be on a certain line. And these transmission lines
13 are all fairly unique. They're designed for a very
14 specific purpose. And there's typically an engineer that
15 is assigned to any work that is done on one of these
16 larger transmission lines out there.

17 In the wood pole range a lot of that is much
18 more standardized. But due to the strength required of
19 these larger steel towers and the unique areas that they
20 go through, there's always an engineer that would be
21 assigned that is looking at this individually whenever
22 we're doing any kind of construction project on it.

23 As far as the rest of the material, we have the
24 standards that were associated with this line.

25 Q. Okay. You have the standards. But nobody is
26 keeping track of what parts are on what tower; correct?

1 A. There's not a list of what parts are on each and
2 every one of the towers we have in our system. I believe
3 we've got 50,000 or so steel towers in the system, over
4 100,000 wood pole and steel poles essentially as well.
5 So, yeah, we don't have a specific list of what is on
6 each and every tower.

7 Q. So let's look at the second item on there; the
8 suspension hook. And what does the table tell us about
9 the suspension hooks on 27/222?

10 A. Saying that based on the standards, the photos
11 that were looked at, the type of hook that we see on that
12 is an Ohio Brass hook. And it's likely -- this
13 particular catalog number which is the 13394, and we see
14 that referenced on a few different drawings. So when we
15 go to the next column over there, those drawings show
16 that catalog number of that hook on there.

17 And then how many do we see on that tower?
18 We're showing a total count of -- of those hooks on that
19 tower.

20 Q. Okay. And then next up the Bates stamp number.

21 A. Yeah.

22 Q. What does that mean?

23 A. I'd have to ask you a little bit more about that
24 part.

25 Q. All right. So it says on there under "Total
26 Count 4 (see note below re fifth hook)."

1 A. Yeah.

2 Q. What does that mean?

3 A. So that's saying that regarding the other hook
4 that's on that line, there's a total of five hooks on
5 this particular structure, on structure 27/222. We had
6 three jumpers, I believe, across -- or sorry. We had two
7 jumpers across the top of the tower where we had the
8 mast. And then -- let me see. There we go. And then
9 the two jumper arms down below and there was one jumper
10 to the left. So there was a total of five hooks on the
11 tower.

12 What we saw was that none of these hooks really
13 matched each other. We had three hooks that came off.
14 One of them had a stamp with that particular catalog
15 number on it. So we know 100 percent sure that is a Ohio
16 Brass 13394 stamp on it.

17 Another one didn't have that stamp, but it had
18 markings that were similar to the drawings that we saw in
19 our records.

20 And then the third hook, the broken hook, didn't
21 have markings that were similar to any drawings that we
22 saw.

23 Q. Okay. And you're talking about the drawings in
24 your library?

25 A. Correct.

26 Q. Your records?

1 A. And we also reached out to Ohio Brass, their
2 representatives of the Ohio Brass.

3 Q. So Ohio Brass still exists?

4 A. Ohio Brass is owned by Hubbell today.

5 Q. Right. That's Hubbell Electrical Systems?

6 A. I'm not 100 percent sure of their legal name.

7 Q. Okay. Do you know when Ohio Brass was bought by
8 Hubbell?

9 A. Approximately. I believe it was in the 1970s.

10 Q. Did you do any other historical research into
11 Ohio Brass products?

12 A. We searched for Ohio Brass catalogs. We
13 searched for Ohio Brass in the system I was talking about
14 earlier Documentum to see what else came up in there.
15 Outside of searching personal records and asking some
16 questions trying to understand some things early on to
17 folks at Hubbell I don't know that there's anything else.

18 We did find some very old Ohio Brass catalogs.
19 It was interesting reading.

20 Q. All right. Next up ceramic insulators.

21 A. Correct.

22 Q. Were you able to identify the insulators that
23 were on 27/222?

24 A. So in our -- in our records we found some
25 documents that detailed different types of insulators
26 that were out there. And it gave information that helped

1 identify the insulators that we found on the tower.

2 Q. All right.

3 A. So like what you see here where it says "Based
4 on 7676 Patent Number on the cap." The insulator is made
5 up of three parts essentially. And so the cap -- the
6 steel cap on the top of it had some markings on it that
7 had 7676 and we were able to match that to other drawings
8 to help identify which ones we thought they were.

9 Q. So let's go forward here. With regard to the
10 suspension hooks, there was a Footnote 1 here that says
11 "Please see the paragraph immediately following this
12 table."

13 So let's concentrate on that on page 3. If you
14 could read us the paragraph immediately following the
15 table.

16 A. Yeah. This is along the line of what I was just
17 mentioning earlier here.

18 "Please note that the markings on the suspension
19 hook that broke differ from those that appear in the
20 suspension hook drawings referenced in the table above in
21 that the hook that broke does not bear the 13394 catalog
22 number but is instead marked with a 'B' on one face.

23 While PG&E has identified a drawing from the
24 original construction of the line of a suspension hook
25 with a 'B' on it found at that Bates number, the 'B' in
26 that drawing is on the opposite face of the 'B' on the

1 hook that broke."

2 Q. All right. So during your research into Ohio
3 Brass, did you look into any of their trademarks or --
4 well, their trademarks?

5 A. I mean, I searched images, but I don't know if
6 that's relevant here. The "B" is a class of strength.
7 It's not -- it's not the trademark.

8 Q. Well, prior -- at one point wasn't Ohio Brass's
9 basically symbol that they put on all of their equipment
10 that they made just the raised letter "B"?

11 A. I'm not aware of that, no.

12 Q. Okay. And at some point their trademark became
13 the circle "B." Correct?

14 A. I've only seen variations of the circle "B."

15 Q. Okay. Circle "B" and "O" for Ohio with the "B"
16 for Brass inside of it?

17 A. Yeah. There has been various changes to what
18 that "OB" looked like.

19 Q. Yeah.

20 A. But when we refer to catalogs, the "B" on there
21 designated the difference between an "A" and "B" in terms
22 of strength.

23 Q. Okay. In looking at the catalogs, when does the
24 circle "B" make its first appearance in the catalogs?

25 A. I believe the circle "B" went back as far as
26 I've seen.

1 Q. Okay. In your research into the catalogs of
2 Ohio Brass, is it true that Ohio Brass only -- in the
3 early 1900s only published a calendar -- or catalog every
4 ten years?

5 A. I'm not aware of that, no. I had seen catalogs.

6 Q. Did you review a 1921 catalog of Ohio Brass?

7 A. I have seen a 1921 catalog, correct.

8 Q. And in that catalog this part number has the
9 circle "B" on it; correct?

10 A. The catalog doesn't show engineering drawings of
11 the "B." It depicts kind of a picture of what it might
12 look like but doesn't depict what it's actually going to
13 look like.

14 Q. All right. And prior to that there's the 1911
15 catalog for --

16 A. There's several in between those.

17 Q. Really? Where have you found those?

18 A. We have some Ohio Brass catalogs.

19 Q. Okay. Where can we get those?

20 A. I believe they should be available in various
21 libraries.

22 Q. Okay. Well, that's what I want to know is what
23 libraries.

24 A. We can -- I mean, I can look into that --

25 Q. Okay.

26 A. -- after this for you. We can get that

1 information to you about how to access those catalogs.

2 Yeah, so I think the catalog that you're talking
3 about had a specific number on it. And it goes
4 sequentially through there. So the catalogs were
5 published every year or two, I believe, in that
6 timeframe.

7 Q. Okay. Well, we're going to need you to find
8 those catalogs and provide those to the grand jury.

9 A. So to note though, on the hooks you'll see that
10 some of the hooks had the "OB" stamp on one side and then
11 they had this "B" that we're talking about, the raised
12 "B" on the other side and that designated that the raised
13 "B" was the strength designation. It was not specific to
14 Ohio Brass.

15 Q. Okay. All right. So now let's go on. PG&E
16 also notes that the connectors on Tower 27/222 were
17 replaced in 2016. This was described in PG&E's response
18 to another data request.

19 To date PG&E has not found original records
20 indicating the manufacturer of the conductor on 27/222;
21 is that correct?

22 A. It was correct at the time of this printing.

23 Oh, this continues going.

24 Yeah, so we didn't have any of our own records
25 on there. The next line identifies that we found
26 articles that discussed who the manufacturer of the

1 conductor was.

2 Q. All right. The conductor. What are we talking
3 about here?

4 A. The conductor is, I mean, in layman's terms the
5 wire that is strung up there.

6 Q. So are we talking about the inter-tower
7 conductor or the jumper conductor here?

8 A. That would all be the same.

9 Q. Okay. All right. So let me make sure before we
10 move on we get this right. PG&E doesn't have any records
11 with regard to the actual hook that broke on 27/222?

12 A. The hook that broke doesn't match any of the
13 records that we found and what we searched around for.

14 Q. You don't have any records with regard to the
15 conductor?

16 A. We have plenty of records with regard to the
17 conductor; how to string it, the strength requirements of
18 it, information on how it sags. We have tons of
19 information on that. What we didn't find was like a
20 purchase order and a manufacturer name in our records.
21 But we have tons of engineering documents on the
22 conductor itself.

23 Q. Okay. All right. Let's move on. All right.
24 So on to Exhibit 692. Do you recognize Exhibit 692?

25 A. Yes.

26 Q. What is Exhibit 692?

1 A. This is a response to a CPUC data request again.

2 Q. Okay. And this one is specific to the
3 insulators and the transposition jumper on 27/222;
4 correct?

5 A. Correct.

6 Q. And so CPUC asked of PG&E "Question: Name of
7 manufacturer, age, and model of incident insulators,
8 incident transposition jumper, and incident hook between
9 the conductor and transmission structure 27/222."

10 This is something that would have come to your
11 group for research and response; correct?

12 A. Correct.

13 Q. And again, you would have researched the
14 available records to respond to this request?

15 A. Yes.

16 Q. All right. All right. So first, we have a
17 table again defining a few of the components; the
18 insulators, the ball socket-eye, the static shield, and
19 the suspension wire clamp; correct?

20 A. Correct.

21 Q. All right. So let's move to the first paragraph
22 after that that talks about "With respect to the
23 suspension hooks." And if you could read that paragraph
24 to us.

25 A. "With respect to the suspension hooks on the
26 tower, please note that PG&E has identified original Ohio

1 Brass drawings for suspension hooks on the tower other
2 than the hook that broke. Those hooks bear Ohio Brass
3 catalog number 13394 and correspond to PG&E drawing
4 numbers 014831 and 607957sh3. Those drawings have been
5 produced at the following Bates numbers respectively.
6 The markings on the incident hook appear to differ from
7 those depicted in suspension hook drawings referenced
8 earlier in that the incident hook does not bear the 13394
9 catalog number which instead is marked with a 'B' on one
10 face.

11 While PG&E has identified a drawing from the
12 original tower line construction of a suspension hook
13 with a 'B' on it, (see the following Bates) the 'B' in
14 that drawing is on the opposite face of the 'B' on
15 incident hook."

16 Q. Okay. And then the next paragraph specifically
17 with regard to the transposition jumper.

18 A. "With respect to the transposition jumper --"

19 I believe when we're saying transposition jumper
20 here, we're defining that as the conductor again. So
21 this is similar to the same question that we were just
22 talking about.

23 "PG&E has not found original records indicating
24 the manufacturer. PG&E has identified a publicly
25 available article entitled 'Great Western Power Company's
26 165,000 Volt Transmission Line' in Volume 20 of

1 Engineering World. That article states the aluminium
2 strands in the transposition jumper conductor were
3 manufactured by the Aluminium Company of America and that
4 the steel core was manufactured by John A. Roebling's
5 Sons Company.

6 PG&E has also observed that there are pipes and
7 clamps on the lower transposition jumper and one of the
8 two upper transposition jumpers. For the pipes and
9 pipe-conductor clamps specifically no original drawings
10 have been identified to date and PG&E has not yet been
11 able to determine the manufacturer or vintage of those
12 components."

13 Since then we have found some original drawings
14 of the clamps that were there on that line that connected
15 a pipe to the conductor.

16 Q. Okay.

17 A. And we've also found similar drawings. The next
18 line over from the Caribou-Palermo line have drawings
19 with pipe connected with similar clamps as well.

20 Q. All right. So let's move on to 693. Do you
21 recognize 693?

22 A. I do, yes.

23 Q. What is 693?

24 A. What we're looking at here would have been a
25 standard drawing for Great Western Power. It's titled
26 "Standard Suspension Construction 150 kV Transmission

1 Line."

2 You'll notice the voltage is different than
3 everything that we've been talking about so far. You
4 have heard Caribou-Palermo is a 115 volt -- kV volt line
5 now, and you've seen some of the records so far that it's
6 referred to as a 165 kilovolt line in the past.

7 You know, the reason for that is that originally
8 when it was being designed and constructed, 150 kV was
9 the maximum operating voltage that was in the country.
10 It was available anywhere. But at the time voltage kept
11 rising. And when they designed this particular line,
12 165 kV was the largest voltage to go into service
13 anywhere.

14 So they started with the idea of 150 kV and were
15 able to raise that to 165. And then during the history
16 of the line, as lines were reconfigured, the line was
17 repurposed as a 115 kV line.

18 Q. All right. So up the side it says "Identifies
19 the insulator string as OB --" 'OB' being Ohio Brass "--
20 catalog number 11535." Correct?

21 A. Yes.

22 Q. And going back to 704 under the ceramic
23 insulators and the components on 27/222, the insulators
24 were identified as Ohio Brass 11535; correct?

25 A. Or 25620.

26 Q. Right. Okay. Yeah, that's a good point. "Or."

1 But 11535 was one of the types of insulator strings being
2 used?

3 A. I don't know that it was actually ever used. I
4 think this was called out for in the standard. You'll
5 notice the date on this drawing is 1919. And the --
6 there was an Ohio Brass catalog around the same
7 timeframe. And I believe that this particular code
8 disappeared from the catalog between 1919 -- or right in
9 that range. The catalog that came out right around this
10 timeframe, this particular code was taken out and it
11 moved on to the next generation of similar insulators.

12 Q. Okay.

13 A. So a drawing like this would be -- what would be
14 put together. It says "Any time we are going to build a
15 150 kV line, we would use something like this."

16 And so we have drawings like this today for all
17 of our lines that are out there for different voltages
18 and different types of way we put together our lines.
19 We'll say for a certain voltage, for a certain type of
20 tower this is the type of hardware insulators that should
21 be used.

22 Q. And this is, you said, a drawing from 1919?

23 A. Correct.

24 Q. And when was Caribou-Palermo, at least the
25 section in which 27/222 is part of, built?

26 A. It was built between 1919 and 1921.

1 Q. All right. Let's move on to 694. And what is
2 694?

3 A. Six ninety-four is a vendor drawing of an Ohio
4 Brass insulator. It has a stamp on it that says "Record
5 print" that identifies the Caribou-Golden Gate 165kV line
6 and also line number 603, which those are all synonymous
7 with the section of line that we're talking about. From
8 Caribou to Big Bend -- that section of line was
9 originally part of a much bigger line. The section south
10 of Big Bend was not part of that same overall line. It
11 was different construction altogether.

12 But I'm not aware of this particular insulator
13 being installed on the line either. Perhaps it was at
14 one point. But earlier we were talking about the
15 different parts of the insulator and that that cap has
16 markings on it. And the caps that we've seen on the
17 Caribou-Palermo line all had markings of 7676. I
18 shouldn't say "all." I apologize. But most of the ones
19 that I have seen on there had the 7676 marking on it.

20 And when we look at this particular drawing,
21 there's a column here that says "Patent number." It has
22 a number that is like 6792. And that is not the number
23 that's on the cap of the insulators out there.

24 Q. Okay. Let's move on to 695. And what is 695?

25 A. Six ninety-five is an Ohio Brass drawing that
26 has been stamped with a PG&E vendor drawing number. That

1 607957 number is again, you know, the vendor drawing that
2 would take this drawing in from the vendor, stamp it, and
3 keep it in our records for material that's being used.

4 To note, a lot of these drawings that are marked
5 as being Caribou-Golden Gate and they have these PG&E
6 drawing numbers on them, PG&E acquired Great Western
7 Power in approximately 1930 and all the records from
8 Great Western Power had to come in and be assimilated
9 into the company at that point.

10 I don't think that -- I believe that Great
11 Western Power was fully acquired by PG&E in about 1934 I
12 think is when that was completed. So I'm just kind of
13 thinking back to this previous drawing where they had
14 marked Caribou-Golden Gate on there. It might not have
15 all come together perfectly and cleanly necessarily and
16 there might have been some mismarkings on some of them.

17 But in this particular drawing we're looking at
18 the hook that is called out for that is standard on the
19 Caribou-Palermo line. That is the Ohio Brass Company.
20 You'll see the catalog number in the bottom left-hand
21 side; the 13394. I've seen different versions of this
22 same drawing that has been modified a couple times over
23 time.

24 Q. All right. And this one shows a hook with a
25 raised "B" on the face.

26 A. Correct, correct.

1 Q. All right. And then let's go on to 696 speaking
2 of other versions of this same one.

3 A. Oh, yeah. This particular copy is a little bit
4 difficult to read. But, yeah, most of the information on
5 here is the same except that on the bottom of this one we
6 have some revision notes that show how it changed over
7 time.

8 The original drawing was put together in 1912,
9 but it was modified over time. And that's what those
10 notes on the bottom are talking about is the various
11 modifications that happened.

12 Q. What kind of modifications?

13 A. Some of the dimensions changed. That letter "B"
14 was added in 1916 on there. Says "Changed Figure 2 to
15 letter 'B' 1416" and then there's a signature there.

16 Q. And then there's also a note in here about
17 something. And it's so difficult to read, but it looks
18 like it adds a circle "B" at some point. It looks like
19 about --

20 A. It says "Changed dimension from 13/16 to 7/8.

21 Q. Oh, so that's not a circle "B" in there?

22 A. No. It was just telling you which dimension
23 right here. And so it calls out, and you'll notice that
24 next to the 7/8.

25 Right here (indicating) the 7/8, that's the
26 symbol. So it's giving you a symbol of what got changed

1 on there.

2 Q. Oh, okay. All right. And again, this
3 document -- this original drawing was in 2000 -- or 1912?

4 A. Yeah, it was originally drawn in 1912 and
5 revised since then.

6 Q. All right. So let's move on to 6 -- no.
7 Actually, we're going to go to 260. It should be the
8 next in your stack. There should be a 260.

9 A. Two sixty?

10 Q. Oh.

11 A. I don't believe I have 260.

12 Q. Oh, I forgot to get them out. I'm sorry. We
13 got busy and I forgot to do that this morning.

14 A. It's chilly in here, Marc.

15 Q. Just wait long enough. It'll get hot. I'm from
16 the Midwest, and we all say "It's okay to hate the
17 weather. Just wait a few minutes and it will change."

18 All right. There is 260.

19 A. Thank you.

20 Q. Do you recognize 260?

21 A. I do recognize this, yes.

22 Q. What is 260?

23 A. Two sixty shows a standard modification to a
24 standard SB tower for adding transposition arms. It's
25 one of the modifications that would be required to an SB
26 tower to make that tower into a transposition-type tower.

1 Q. All right. And 27/222 was a transposition
2 tower?

3 A. 27/222 was a transposition tower, correct.

4 Q. And that was originally a snow tower, an SB
5 tower that was modified into a transposition tower?

6 A. Right. So there's -- as I mentioned earlier,
7 there's several items that come together to make a tower.
8 You know, specific there's a standard SB tower. For
9 example here, there would be specific leg extensions,
10 then there would be, depending on the type of soil,
11 different types of foundations that might be used. And
12 these would all go together along with the modifications
13 for transposition to make a more unique tower from all of
14 the various standard drawings.

15 Q. All right. One of those changes would be the
16 addition of the transposition arm; correct?

17 A. So yeah. This drawing details how to add on
18 transposition arms.

19 Q. All right. Next we have 259. Do you
20 recognize 259?

21 A. I do recognize this drawing, yes.

22 Q. And what is 259?

23 A. Two five nine is a drawing that was put together
24 by Stone and Webster which was the company that was hired
25 to build the Caribou Power Plant. So these are on the
26 hydro side of the power plant, Folks.

1 So they put together a drawing of the hardware
2 that was used on the line as it came into Caribou Power
3 Plant.

4 Q. All right. So this would be the transmission
5 line actually as it's going out of Caribou Power Plant;
6 correct?

7 A. Yeah. So this would be for the hardware that is
8 on the towers and lines at the Caribou Power Plant as
9 it's coming out.

10 Q. Okay. And that Caribou-Palermo -- what's now
11 Caribou-Palermo was one of the lines coming out of the
12 Caribou Power Plant; correct?

13 A. Correct.

14 Q. When did the Caribou Power plant open?

15 A. We found several different sources of
16 information that all point to a ceremony energizing the
17 Caribou Power Plant in May of 1921.

18 Q. At the same time that what's now known as the
19 Caribou-Palermo line went into service?

20 A. Yeah. So that ceremony put that line into
21 service.

22 Q. Okay. All right. So let's move on to 697. Do
23 you recognize 697?

24 A. I do recognize it, yes.

25 Q. What is 697?

26 A. I was mentioning earlier there's various

1 modifications that need to be put together to make the
2 tower into a transposition tower. This is one of the
3 early modifications that is needed. It's the mast that
4 goes on top of the SB tower to allow the conductors to be
5 transposed over the top of the tower.

6 Q. All right. And next is 698. Do you recognize
7 698?

8 A. I do recognize it, yes.

9 Q. And what is 698?

10 A. Six ninety-eight is an erection drawing for the
11 snow-type SB tower.

12 Q. Six ninety-nine. Do you recognize 699?

13 A. Yes.

14 Q. What is 699?

15 A. This one is similar. It doesn't detail out the
16 connections as well as the last one. So it's kind of an
17 overview drawing of a standard SB tower.

18 Q. All right. And then finally 700. Well,
19 actually that was fine. Now we'll move on to some other
20 stuff.

21 Do you recognize 700?

22 A. Yes.

23 Q. What is 700?

24 A. This is a response to a CPUC data request.

25 Q. And on this one who was the response done by?

26 A. It has my name on this one for the transmission

1 side. We were responding to questions for Location 1 and
2 Location 2. I was responsible for responding to
3 Location 1.

4 Q. All right. What was the question that you were
5 asked to respond to?

6 A. When was the subject conductor installed.

7 Q. And what was your response or what did you find?

8 A. That it was installed between 1919 and 1921 and
9 went into service in May of 1921.

10 Q. All right. So based upon all of the historical
11 records of PG&E it's your understanding that the
12 conductor has been hanging in 27/222 or that conductor --
13 that section of conductor goes all the way back to
14 original installment?

15 A. So based on the records we didn't have any other
16 records that showed any kind of reconductoring project or
17 something out there to that effect. There was evidence
18 in the field that a dead-end arm had been replaced up
19 there as the old arm was still on the ground. And so
20 some conductor could have been replaced with that. But
21 as far as the records go, the records don't show it.

22 Q. So you have no records indicating that the
23 conductor has ever been replaced?

24 A. No.

25 Q. And the best guess based upon the records is
26 that this conductor is 100 years old?

1 A. Not quite but, yeah.

2 Q. Well, it could have been installed between 1919
3 and 1921, but it went into service in 1921?

4 A. Correct.

5 Q. All right. So let's move on to 701. Do you
6 recognize 701?

7 A. I do recognize it, yes.

8 Q. What is 701?

9 A. Similarly, this is a data request. The question
10 was "What type of conductor was installed for each of the
11 incident locations prior to the incident?"

12 Q. And again, you were the person responding?

13 A. Correct.

14 Q. And so what were you able to find in terms of
15 the type of conductor that was . . .

16 A. So, like I said, we had a lot of records of, you
17 know, what conductor was up there. And so this is an
18 ACSR conductor which is a standard kind of conductor that
19 we use where we need higher strength.

20 The ACSR conductor has a steel core that gives
21 it much more -- more strength and ability to be used in
22 like a mountainous region where it might get snow loading
23 or other heavy loading on there.

24 And then its particular size is what the Kcmil
25 number is. Kcmil is thousands of circular mils. It's
26 certain measurements that are used on conductors. That's

1 kind of like the cross-sectional area of the
2 current-carrying part of the conductor. So in this case
3 452.3 Kcmils. In overall the conductor had a diameter of
4 about .8 inches.

5 Q. All right. Let's move on to 702. Do you
6 recognize 702.

7 A. Yes.

8 Q. What is 702?

9 A. Again, this is a data request, response data
10 request. The question being "Please provide the
11 following information regarding the CP 115kV transmission
12 line: Length of the conductor from Caribou to Palermo
13 (a); (b) composition of the conductor. For example,
14 number of miles of copper, number of miles of ACSR, et
15 cetera; and (c) number of structures, period. Please
16 break down into wood poles, steel poles, structures."

17 Q. All right. So did you respond to this data
18 request also?

19 A. This looks like the responding person was
20 Joscelyn Wong.

21 Q. And who is Joscelyn Wong?

22 A. She is manager of Strategic Governance at this
23 point.

24 Q. All right. So this details what kind of
25 conductor there is on the Caribou-Palermo line, the
26 entirety of the line. Is that true?

1 A. Correct.

2 Q. All right. And then how many structures and so
3 on and so forth?

4 A. Correct.

5 Q. All right. Let's move on to 703. Do you
6 recognize 703?

7 A. I do, yes.

8 Q. What is 703?

9 A. It's another response from a data request. This
10 question was "When were the reinforcement hanger brackets
11 installed on the left and right runners on Tower 27/222."

12 Q. And is this a request to which you responded?

13 A. Yes, I responded to this one.

14 Q. And what were you able to find out with regard
15 to the hanger brackets installed on the transposition
16 arms of 27/222?

17 A. Earlier I mentioned that we had searched
18 thousands -- you know, around a thousand boxes or so,
19 bankers' boxes of records looking for specific jobs. We
20 were hoping to find a job that did this particular work.

21 The way we went about it was looking for those
22 GM order numbers. I believe though that the GM orders
23 had a certain value limit. And perhaps this is where it
24 fell below that particular value limit and wasn't
25 recorded in the GM order numbers. But we searched, you
26 know, every job that had reached that threshold looking

1 for something that showed this particular work.

2 Additionally, below that level there's like
3 local maintenance orders. And we started searching
4 through several of these local maintenance orders. The
5 issue is that prior to the mid '90s or so records were
6 organized by date and not by what kind of work was being
7 done, what was being done.

8 We searched through several of these boxes of
9 local maintenance stuff. And it changed from gas,
10 electric, building a house or building a shed, buying a
11 car and found no information on transmission lines while
12 we're going through that. But we searched through boxes
13 and boxes and boxes that had some kind of intern and
14 found, you know, nothing related to this. I believe
15 there might still be a record of this in the company, but
16 we have not been able to find it.

17 Q. So in short as of today you've been unable to
18 find any records relating to the installation of those
19 hanger brackets on 27/222?

20 A. That's correct.

21 Q. Let's move on to 704. Oops.

22 A. I only have a 703.

23 GRAND JURY SECRETARY: Exhibit 704 was the very
24 beginning.

25 MR. NOEL: Oh, we started with 704. That's
26 right. I knew I wasn't losing it. Yeah, only a little.

1 I'm getting punchy after so long.

2 BY MR. NOEL:

3 Q. All right. So to go back in summary, PG&E has
4 no records of the actual hook that failed on 27/222. Is
5 that correct?

6 A. We have not found a record. I don't know that
7 we do not have a record. That's -- we have a ton of
8 records overall.

9 Q. So 13 months in you haven't found any record of
10 that hook?

11 A. Correct.

12 Q. Who made that hook you don't know?

13 A. We don't have that particular hook. That hook
14 was taken into evidence by Cal Fire, and we haven't been
15 able to get ahold of it, take measurements of it, compare
16 it to, you know, information from various manufacturers
17 to try to make a solid match.

18 And additionally, the tip of the hook was never
19 found. So we just have the one side of the hook and --

20 Q. But you have photographs of the hook?

21 A. I have some -- yeah, we have some photographs of
22 the hook which show that it does not match the drawings
23 that we have of the 13394 that is prevalent on that line.

24 Q. So PG&E has no records pertaining to that hook?

25 A. Again, I don't know that we don't have any
26 records, but we have not found any records.

1 Q. PG&E has found no records with regard to any
2 replacement of that hook in the last hundred years;
3 correct?

4 A. Oh, no, we have not found records for
5 replacement of the hooks.

6 Q. And you don't have any records regarding the
7 conductor itself?

8 A. Well, it's apparent that the hooks have been
9 replaced in the sense that if they were all installed
10 together at the same time, they'd all look exactly the
11 same. You wouldn't be pulling something out of a bin and
12 have four -- three or four different types of things
13 coming out of it.

14 PG&E has a history of salvaging material when
15 it's in good shape. And that's a lot of what we found in
16 the records when we were going through different jobs --

17 Q. I -- so you have no records of any of that
18 occurring on this tower; correct? When you say it's been
19 replaced, that's pure speculation on your part; correct?

20 A. I mean, you can say we have no records of this
21 room being painted, but there's evidence of it.

22 Q. Okay. You have no evidence showing that those
23 hooks have ever been replaced?

24 A. I don't have any records that show that those
25 hooks were replaced --

26 Q. Right.

1 A. -- that we found so far.

2 Q. Right.

3 MR. NOEL: I have nothing further.

4 Do the jurors have any questions?

5 THE WITNESS: Now we're going to get some fun
6 ones.

7 MR. NOEL: Yep.

8 [Conferring off the record.]

9 BY MR. NOEL:

10 Q. All right. So these are the -- some questions
11 from the jurors. First, "If the raised 'B' mark on the
12 C-hook was added in 1916, according to Exhibit 696, and
13 the hook in question had no markings, is it probable that
14 the hook was manufactured prior to 1916?"

15 A. That's a very good question. But the hook in
16 question did have a raised "B" on it, but the "B" was on
17 the other side of the hook. And that "B" was a standard
18 designation amongst manufacturers to designate what type
19 of strength it was essentially.

20 So, yeah, had that hook had no markings on it,
21 it would be possible that it was prior to 1916. But this
22 one did have a marking on it. It just wasn't consistent
23 with the markings that we'd seen in our drawings.

24 Q. So why does the "B" indicating the strength rule
25 out that it was made prior to 1916?

26 A. Sorry. Can you repeat that.

1 Q. Why would having the raised "B," which you said
2 is an indicator of strength, rule out that it was made
3 prior to 1916?

4 A. I don't believe that I said that it ruled that
5 out.

6 Q. Okay.

7 A. I've been saying that I don't know -- I don't
8 have a drawing that shows a hook with a "B" on that side
9 of it.

10 Q. All right. Is it fair to say that the CPUC data
11 request in re Tower 27/222 indicates that PG&E does not
12 have a record of the engineering specs or age of the
13 suspension hook that broke specifically?

14 A. Can you repeat that again.

15 Q. Is it fair to say that the CPUC data request in
16 re Tower 27/222 indicates that PG&E does not have a
17 record of the engineering specs or age of the suspension
18 hook that broke?

19 A. So we have the engineering specs and standards
20 for what was installed originally on that line. And for
21 that particular hook I have not found any drawings that,
22 you know, are similar to that particular hook.

23 Q. Is it fair to say that the suspension hook on
24 27/222 that failed could be reasonably -- could
25 reasonably be assumed to be between 98 and 100 years old?

26 A. Again, I don't have information on it, but there

1 are other hooks on that line that that's a reasonable
2 assumption.

3 Q. Are you aware of any effort by PG&E prior to
4 November 2018 to specifically examine and test
5 transmission line components that are 75 to 100 years
6 old?

7 A. We have a program of inspection that goes out
8 and looks at all of our transmission lines. And you'll
9 find several reports that show PG&E's inspection
10 practices are in line with every other utility in the
11 country.

12 We had Quanta come in and pull reports.
13 Exponent has recently done reports that show that our
14 inspection practices that look at these are in line with
15 the industry. And with that we go out and we inspect.
16 We look for particular issues, and we change them out as
17 something starts to exhibit an issue.

18 Q. Interesting you bring up Quanta reports. Are
19 you familiar with the 2010 Quanta report?

20 A. I've read through portions of the 2010 Quanta
21 report. There's also a 2012 Quanta report, too.

22 Q. You just testified that PG&E's inspection
23 policies were consistent, but actually the Quanta report
24 suggested that due to aging towers that more inspections,
25 for instance, climbing inspections be done on the aging
26 towers. And PG&E hadn't climbed these towers in a long

1 time; correct?

2 A. So what I had said was that what we were doing
3 was consistent with what the rest of the industry was
4 doing. And that's true.

5 Q. And that also assumes that the persons who are
6 supposed to be doing the work are actually doing what
7 they're supposed to be doing; correct?

8 A. So I'm familiar with the report. I'm not
9 familiar with the individual inspectors and how something
10 gets specifically inspected.

11 Q. All right. So going back to the question . . .

12 [Conferring off the record.]

13 BY MR. NOEL:

14 Q. Again, going back to the question itself, you're
15 not aware of any effort by PG&E to specifically examine
16 and test transmission line components 75 to 100 years
17 old?

18 A. Our program wasn't age based. It was condition
19 based.

20 Q. Okay. If there is such a program, are you aware
21 of the testing parameters and do they include wind tunnel
22 testing and temperature control testing that would
23 approximate the affects of extremes of weather on such
24 components?

25 A. There's a variety of testing that goes on before
26 we choose a manufacturer. That's at the beginning of

1 selecting equipment and identifying what kind of
2 conditions it needs to be good for.

3 Q. Have you ever been pressured by PG&E management
4 to respond to the economy of a project over specific
5 engineering safety issues? Or I may have misread that.
6 Basically putting cost over safety.

7 A. We're specifically told to put safety first.
8 And that's an instance that is discussed in our trainings
9 that, you know, we have to make sure that safety is
10 number one.

11 Q. All right. So going back to earlier to clarify,
12 you said that the program is condition based, not age
13 based. What program were you talking about?

14 A. So I'm going to have to defer on that one. I'm
15 not an expert on our inspection policies. But we do have
16 several experts in that field, and you can work with our
17 folks to get those guys in here to come talk about that.

18 Q. Okay. You're talking about the inspection
19 policies; correct?

20 A. Correct.

21 MR. NOEL: Okay. Anything else? I think that
22 is it.

23 Madam foreperson will have an admonition for
24 you. And you may leave the exhibits on the desk.

25 GRAND JURY FOREPERSON: Mr. Davis, you are
26 admonished not to discuss or disclose at any time outside

1 of this jury room the questions that have been asked of
2 you or your answers until authorized by this grand jury
3 or the Court. A violation of these instructions on your
4 part may be the basis for a charge against you of
5 contempt of court. This does not preclude you from
6 discussing your legal rights with your own attorney.

7 Mr. Davis, what I have just said is a warning
8 not to discuss this case with anyone except the Court,
9 your lawyer, or the district attorney.

10 Do you have any questions?

11 THE WITNESS: No.

12 GRAND JURY FOREPERSON: Okay. Thank you for
13 your time today.

14
15 [DISCUSSION OMITTED.]

16
17 [Exhibits 692 though 704
18 admitted into evidence.]

19
20 [Recess taken at 10:21 a.m.]

21
22 [PROCEEDINGS OMITTED.]

23
24 [Recess taken from 10:26
25 until 10:33 a.m.]

26 GRAND JURY FOREPERSON: Okay. All members of

1 the grand jury are present and ready to proceed.

2
3 [DISCUSSION OMITTED.]
4

5 [Witness enters the courtroom.]

6 GRAND JURY FOREPERSON: Mr. James, before you
7 have a seat, please raise your right hand to be sworn.

8 Mr. James, do you solely swear that the evidence
9 you shall give in this matter pending before the grand
10 jury shall be the truth, the whole truth, and nothing but
11 the truth so help you God?

12 THE WITNESS: I do.

13 GRAND JURY FOREPERSON: Thank you. Have a seat,
14 please.

15 **EXAMINATION**

16 BY MR. NOEL:

17 Q. Mr. James, for the record please state your full
18 name spelling your last.

19 A. My full name is Bradley Allyn -- and that's
20 A-l-l-y-n -- James, J-a-m-e-s.

21 Q. Mr. James, are you employed?

22 A. Yes.

23 Q. By whom are you employed?

24 A. By Exponent Incorporated.

25 Q. What is Exponent Incorporated?

26 A. Exponent is an engineering and scientific

1 consulting company.

2 Q. Can you explain to us what an engineering and
3 scientific consulting company does.

4 A. Well, so we have lots of different engineering
5 and scientific disciplines. I myself am a metallurgical
6 engineer. And one of the basic functions of my job is
7 looking at things that have -- have broken and figuring
8 out why they broke.

9 Q. All right. So you have in front of you
10 Exhibit 706. Do you recognize Exhibit 706?

11 A. I do.

12 Q. What is Exhibit 706?

13 A. This is -- this is a report that I and my team
14 wrote regarding the repair tags from the Caribou-Palermo
15 line.

16 Q. Okay. How is it that you have come to write a
17 report on the repair tags on the Caribou-Palermo line?

18 A. So I was asked by a law firm called Cravana
19 (phonetic) that they were looking for a company -- well,
20 a person in a company to do an independent investigation
21 for the CPUC and for PG&E as to why the Caribou-Palermo
22 line had more repair tags than other similar lines.

23 Q. Is it common for your company Exponent to do
24 independent investigations such as this?

25 A. Yes.

26 Q. All right. Now, I am going to switch screens

1 real quick. All right. So we have the report. Now,
2 tell us a little bit about the report.

3 A. Well, what do you want to know?

4 Q. Well, first of all, when did you start working
5 on the report?

6 A. We started working on the investigation, if I
7 recall, in March or April of 2019. I probably didn't
8 start writing the report until, you know, September
9 timeframe.

10 Q. And we talked about investigation. What type of
11 investigation did you do?

12 A. So this investigation was mostly looking at
13 data, looking at data that had been supplied by PG&E
14 about their -- the lines and their system in comparing
15 the data from the Caribou-Palermo line to other lines.

16 Q. Now, you used a term earlier "repair tags." You
17 said that you were looking at repair tags on the
18 Caribou-Palermo. What are repair tags?

19 A. So good question. So when somebody goes -- when
20 PG&E employees go inspect the lines, they do a condition
21 assessment and then that condition assessment gets turned
22 into repair tags. And the more severe the problem they
23 find, that creates a different type of repair tag. They
24 have several different types of repair tags which
25 basically say how bad it is and how quickly the problem
26 needs to get fixed.

1 Q. Okay. Can you describe the process of
2 investigation and what you went through to ultimately
3 come up with this report.

4 A. So we went through a lot of data. We talked to
5 a lot of employees from PG&E, folks who had -- who knew
6 about the various lines.

7 One of the big things we had to do was to come
8 up with a good representative set of comparison lines,
9 lines to compare Caribou-Palermo with. We got all the --
10 we got all the data from PG&E and then basically just
11 analyzed the data. We'd ask questions. They'd maybe
12 give us some more data that we asked for.

13 One thing that you all should know is that this
14 was done jointly between PG&E and the CPUC. So talking
15 about this project I only ever talked to the CPUC and
16 PG&E at the same time to get the information and data
17 that we got.

18 Q. All right. So I kind of want to walk through
19 the report. The report is 84 pages; correct? Or
20 actually, about 70 pages of actual text; correct?

21 A. I haven't counted it. I can count it if you
22 want me to.

23 Q. No, you don't need to. But kind of walk through
24 it so that our jurors will be able to understand the
25 report. They can read it. And so let's start with the
26 executive summary.

1 A. Sure.

2 Q. What is an executive summary?

3 A. So the executive summary is really kind of
4 the -- it condenses the entire report in a few pages
5 basically.

6 Q. Okay. And then at the bottom of the executive
7 summary you have some conclusions. So I'd like to spend
8 a little bit of time on those conclusions to start with.
9 And that says "Based on our analysis we have reached the
10 following conclusions."

11 Who is the "our"?

12 A. Exponent.

13 Q. Yourself in particular?

14 A. Yeah. So I led the team that did this analysis.

15 Q. And that's the next question is describe for us
16 your team.

17 A. So my team was a number of engineers who went
18 through all the data, created all the plots. We probably
19 had between five and ten folks working on this while it
20 was happening.

21 Q. What education and training and experience do
22 you have that qualifies you to do this sort of
23 investigation and analysis?

24 A. So I have a Ph.D. in metallurgical engineering.
25 I'm a professional engineer and I've been working in
26 engineering consulting at Exponent actually for 25 years.

1 Q. All right. So can you walk us through your
2 conclusions?

3 A. Happy to. Do you just want me to kind of read
4 them and talk about them?

5 Q. Yep.

6 A. Okay.

7 Q. You can read them, and I'll ask questions to
8 explain them.

9 A. Sure. So conclusion number one "The
10 Caribou-Palermo line was confirmed to have a greater
11 number of post-Camp Fire high priority --" and high
12 priority tags are denoted "A" and "B" tags "-- then all
13 selected comparison lines as well as an increased per
14 structure high priority tag rate when normalized for the
15 number of steel lattice towers."

16 Q. All right. Start with when you're talking about
17 post-Camp Fire repair tags. So you're limiting this to
18 what?

19 A. So, you know, I don't know the extent to which
20 you guys know all this, but after the Camp Fire PG&E did
21 this WSIP program, the Wildfire Safety Inspection
22 Program. And so these were enhanced inspections. They
23 had big teams that went out and looked at all these
24 components.

25 And so apparently because of that, because they
26 had found an increased number of tags on Caribou-Palermo

1 than all the other lines, I believe the CPUC said "Hey,
2 what gives? Let's have somebody do an analysis."

3 And so really this opinion number one is kind of
4 validating that. Basically, this is us saying "Yes, we
5 looked at all the tags and, yes, Caribou-Palermo not only
6 had more tags than the other lines even when you
7 normalize it." And that means --

8 Q. We'll get to that in just a second.

9 A. Okay. So I will stop and I will let you ask
10 some more questions.

11 Q. Let's walk through it. You talked about the "A"
12 and "B" repair tags. Are you referring there to the PG&E
13 priority designations for their notifications or tags?

14 A. Yes.

15 Q. So that would be the A, B, E, F?

16 A. Correct.

17 Q. Okay. Comparison lines. What are comparison
18 lines?

19 A. So comparison lines -- and I don't -- I don't
20 know how many of them there were off the top of my head,
21 but there were 40 some odd lines that we looked at that
22 had -- from PG&E that were similar in terms of -- in
23 terms of the voltage they carried, the elevation they
24 were at, the time that they were constructed. That sort
25 of thing. We wanted to compare apples and apples.

26 Q. All right. And now can you define or explain to

1 us what it means to be normalized.

2 A. Sure. So normalized really just means divided
3 by the number of towers. So if -- let's -- if we have a
4 couple of lines, let's say one has ten tags and one has
5 five tags, that -- you know, comparing ten and five is
6 fine. But if one line has ten times the number of
7 towers, then maybe that ten tag doesn't -- isn't as high
8 a rate as the one that, say, has five tags and far fewer
9 towers.

10 So we basically just divide the number of towers
11 to make it a level playing field basically.

12 Q. All right. Do you compare apples to apples and
13 oranges to oranges?

14 A. Sure.

15 Q. All right. Conclusion number two. Can you read
16 that for us.

17 A. Sure. "Other lines adjacent to Caribou-Palermo
18 such as Bucks Creek, Rock Creek Cresta --" and that's the
19 "BCRC" "-- Cresta Rio Oso and Paradise Table Mountain had
20 the second, fourth, and fifth highest post-Camp Fire high
21 priority tags respectively when normalized for steel
22 lattice towers."

23 PIT 4 Tap had the third highest normalized high
24 priority tag count, but it's not near Caribou-Palermo.

25 Q. And conclusion number three.

26 A. "Cold-end insulator hardware-related issues were

1 responsible for the highest number of 'A' priority
2 post-Camp Fire tags on Caribou-Palermo and the second
3 highest number of 'B' priority tags. Foundation-related
4 issues accounted for the greatest number of 'B' tags."

5 Q. So when you refer to cold-end insulator
6 hardware, can you explain to us what you're -- what that
7 means.

8 A. Right. So the insulators that insulate the
9 electricity from the tower typically hang from the tower.
10 And there's a hot end to the insulator and a cold end.
11 The hot end of the insulator is the part that contacts
12 the conductor. The cold end is the part that contacts
13 the tower. We're particularly interested in the cold-end
14 hardware because that's what reportedly failed and
15 started the Camp Fire.

16 And so that -- so that's what we're focusing on
17 in number three when we're talking about the cold-end
18 insulator hardware is basically the C-hooks and other
19 apparatus that attach the insulators to the tower.

20 Q. All right. Conclusion number four.

21 A. "Wear was the most commonly observed post-Camp
22 Fire damage mechanism for Caribou-Palermo 'A' tags and
23 the second most commonly observed damage mechanism for
24 'B' tags. Nearly all Caribou-Palermo wear-related tags
25 were associated with cold-end hardware. Cold-end
26 hardware wear issues were likely caused by repeated

1 conductor and insulator movement over time."

2 Q. Okay. Can you define the term "wear" for us.

3 A. So wear is the progressive removal of material
4 caused by that material being contacted with something
5 else and taken away over time.

6 Q. Okay. And then it says "Cold-End hardware
7 issues are likely caused by repeated conductor/insulator
8 movement over time." Can you explain that statement.

9 A. So the wear that we -- that is happening on --
10 that was happening on those cold-end insulators was
11 caused by the motion between the insulator and the
12 attachment mechanism. And that's a time event process.
13 It takes time and relative motion over time to cause that
14 wear.

15 Q. Is there a term for that type of wear?

16 A. Well, there are all kinds of engineering terms
17 for that. Fretting is one type of engineering term for
18 that kind of wear.

19 Q. And fretting. Can you spell that for the court
20 reporter.

21 A. F-r-e-t-t-i-n-g.

22 Q. And what exactly is fretting?

23 A. Fretting is the removal of metal due to
24 metal-on-metal contact and small motions between those
25 two pieces of metal.

26 Q. All right. Number five.

1 A. "Caribou-Palermo, Bucks Creek, Rock Creek
2 Cresta, and Cresta Rio Oso lines each located within the
3 North Fork Feather River Canyon exhibited high priority
4 cold-end hardware tag counts more than three times higher
5 than the next highest comparison line when normalized for
6 steel lattice towers."

7 Q. Can you explain that conclusion to us, please.

8 A. So we saw high wear rates. We saw -- we saw --
9 actually, I'll put it this way. We saw high tag counts
10 for basically the three lines in the North Fork Feather
11 River Canyon; Caribou-Palermo, Bucks Creek, Rock Creek
12 Cresta, and Cresta Rio Oso. And those lines are all
13 pretty much parallel to each other in that canyon.

14 Q. Okay. Number six, your conclusion number six.

15 A. "Link connections were observed on only the
16 southern portion of Caribou-Palermo and accounted for
17 approximately 40 percent of cold-end hardware wear tags
18 on the entire line. All of the Caribou-Palermo south
19 wear tags were associated with the link connections."

20 Q. What is a link connection?

21 A. Well, so there are several different types of
22 cold-end hardware connections. And the link connection
23 is, as we learned when we did this analysis, is an older
24 style of connection. And we only saw a link connection
25 on the southern parts of Caribou-Palermo.

26 So basically south of Lake Oroville down --

1 pretty much down in the valley floor. And these link
2 connections had a -- had a higher wear rate than many of
3 the other connections we saw.

4 Q. Okay. Number seven.

5 A. "Roughly one-sixth of drone-imaged
6 Caribou-Palermo north towers contained insulated jumpers.
7 However, over 60 percent of the post-Camp Fire high
8 priority cold-end hardware wear tags on Caribou-Palermo
9 north were associated with structures that contained
10 insulated jumpers.

11 Additionally, over half of all cold-end hardware
12 wear tags on Bucks Creek, Rock Creek Cresta, and Cresta
13 Rio Oso were on towers with insulated jumpers."

14 Q. What is an insulated jumper?

15 A. So an insulated jumper is a conductor that is
16 typically at the tower and is not under tension. It
17 basically hangs from one conductor to the other
18 conductor. I've got pictures in my report that I could
19 show.

20 Q. Okay. We'll go through those in a second.

21 A. Yeah. But it's a -- it's a short hanging length
22 of conductor that is basically used to bridge -- to
23 bridge one conductor to the next across a tower.

24 Q. All right. So conclusion number eight.

25 A. "Caribou-Palermo north and other North Fork
26 Feather River Canyon comparison lines contained an

1 increased number of insulated jumpers and insulated
2 jumper wear tags compared to similar lines. These
3 Caribou-Palermo and other North Fork Feather River Canyon
4 structures with insulated jumpers exhibited a higher
5 incident of cold-end hardware wear than standard
6 suspension structures."

7 Q. What is a standard suspension structure?

8 A. So a standard suspension structure is when
9 you've got a tower and you've got the arm of the tower.
10 And the insulator hangs straight down and the conductor
11 just goes straight along the bottom. And it just hangs
12 from that bottom of the insulator whereas --

13 And that's what you typically see driving down
14 the road looking at towers. What we were talking about
15 in number eight is that those typical standard
16 suspension-style towers exhibited less wear on average
17 than ones that had these hanging no-tension insulated
18 jumpers.

19 Q. All right. Number nine.

20 A. Number nine "Caribou-Palermo north experiences
21 higher annual average wind speeds than non-adjacent
22 comparison lines. Lines analyzed within the North Fork
23 Feather River Canyon may have increased wear tags
24 associated with longer duration high wind conditions. No
25 apparent correlation between wear tags and temperature,
26 precipitation, or peak wind speed --" and that's the

1 50-year return peak wind speed "-- was observed."

2 Q. All right. This one is going to take some
3 explaining.

4 A. Okay.

5 Q. So where do you get wind speeds?

6 A. So we got wind speeds from the National
7 Renewable Energy Laboratory. They've got a website that
8 has wind speeds from, I think it was, years, historical
9 wind speeds on a day-by-day basis down to a pretty fine
10 grid. I believe it was between 2007 and 2013.

11 Q. What is the National Renewable Energy . . .

12 A. Laboratory. It's a government agency that -- in
13 this case I think because they're looking at, you know,
14 how good of an area you might have for wind farms or what
15 have you, that's why they do all these wind studies.

16 Q. So how do you figure that the Caribou-Palermo
17 north has higher annual average wind speeds?

18 A. So -- and by the way, so we divided
19 Caribou-Palermo north and south. There is kind of a
20 natural dividing line in PG&E circuits. Below a thousand
21 feet they typically have one type of tower that might
22 carry two circuits and then above a thousand feet they
23 have a different -- what they call a snow tower. It was
24 a snow tower that was at issue in the Camp Fire. And so
25 that's -- so Caribou-Palermo north is basically snow
26 towers. Caribou-Palermo south is basically dual circuit

1 towers.

2 And how do we come up with -- so we looked at
3 the NREL wind data. We picked a representative year;
4 2010. And we roughly compared 2010 to the other
5 available years. It was -- they were all basically the
6 same on a yearly basis.

7 And so then we looked at -- we looked at peak
8 wind, at average winds. We looked at number of hours
9 above certain wind speeds to assess.

10 One of the questions obviously was -- I'm
11 backing up a little bit, but one of the questions was why
12 does Caribou-Palermo have more tags -- repair -- high
13 priority repair tags than other lines?

14 And so one of the hypotheses, one of the
15 theories that we wanted to explore was, well, maybe part
16 of that is because of where it's located in terms of
17 wind, wind causing this motion between the metal parts
18 and the wear.

19 Q. And based upon the data you were able to
20 determine that there was no apparent correlation between
21 the weather and the wear?

22 A. Not exactly. So you can see that we talked
23 about there -- there was no -- there was no apparent
24 correlation between tags and temperature. So we had
25 temperature all along the line. We didn't see any spikes
26 in tags for cold or warmer temperatures.

1 Same with precipitation. We looked along the
2 line. We didn't see any spikes or clusters as associated
3 with precipitation.

4 And the same with peak wind speed. But there's
5 lots of ways to slice wind speed. And peak wind speed --
6 this 50 year return -- this is basically -- this was
7 basically from a map that says "Okay. What's the hardest
8 the wind is going to blow in 50 years?" That's what
9 50-year return means. So a 50-year windstorm is a
10 once-every-50-year windstorm.

11 We found that the wear tags do not correlate to
12 the once-every-50-year windstorm.

13 Q. Okay. Number ten.

14 A. "From 2001 to November 2018 the Caribou-Palermo
15 line was subjected to similar ground inspections and
16 patrol frequencies as comparison lines. These
17 inspections and patrols yielded comparable normalized
18 high priority tag counts between Caribou-Palermo and
19 comparison lines."

20 Q. Now, where are you getting the information on
21 ground inspections and patrol frequencies?

22 A. That came from PG&E.

23 Q. Okay. Records or people or --

24 A. Records.

25 Q. What type of records?

26 A. Digitized paper records that talked about these

1 inspections.

2 Q. Okay. Did you do any research into the quality
3 of the inspections that were reflected upon by those
4 records?

5 A. I would say indirectly we looked at some of the
6 indications of quality with respect to those records.
7 There's no way for us to tell the quality of the
8 inspection that occurred. We did look at some of the --
9 at some of the things that they were looking for. And
10 indirectly we can look at quality by saying "Okay. Are
11 they assuming?"

12 Yeah. Assuming everything is equal, are they
13 seeing a similar number of tags and inspections and
14 inspection frequencies between the various circuits?

15 Q. Okay. But you're relying upon the PG&E
16 inspection and patrol records to be complete and
17 accurate; is that correct?

18 A. Yes.

19 Q. All right. Let's move on to number 11.

20 A. "Historical ground and patrol --" sorry.
21 "Historical ground and patrol inspection forms did not
22 specify cold-end hardware assessment. Pre-Camp Fire
23 climbing inspection forms did contain assessment fields
24 for structural components such as insulator hardware.
25 However, climbing inspections were not routinely
26 performed on lines less than 500 kilovolts."

1 Q. Again, that's part of PG&E's policy?

2 A. That was -- and we got that from their subject
3 matter experts. But that was -- my understanding was
4 that PG&E's policy was to generally not inspect -- do
5 climbing inspections on the lines that were less than 500
6 kilovolts.

7 Q. Okay. And in terms of the inspection forms,
8 historically how far back did you go?

9 A. 2001.

10 Q. So you didn't look at any of the policies prior
11 to 2001?

12 A. I don't believe we ever saw those.

13 Q. Okay. All right. Number 12.

14 A. "Although climbing inspections were not
15 routinely performed on lines less than 500 kilovolts, 79
16 Caribou-Palermo towers were subjected to climbing
17 inspections in the months prior to the Camp Fire. The
18 tower reportedly associated with the Camp Fire was not
19 inspected. PG&E's post-Camp Fire enhanced inspection
20 procedures including CIRT or DIRT reviews have led to
21 substantial improvements in identifying progressive or
22 wear-related insulator hardware damage."

23 Q. All right. So after the fire now they're
24 looking for damage on cold-end insulator hardware?

25 A. That's true after the fire they were looking for
26 that.

1 Q. All right. Number 13.

2 A. "The Caribou-Palermo line had more normalized
3 equipment-based outages between 2007 and 2018 than
4 approximately 80 percent of the other WSIP transmission
5 lines."

6 Q. Explain that conclusion to us, please.

7 A. Yeah. So PG&E reports outages when the power
8 goes out. We have access to that -- had access to that
9 data. And so we stripped out lots of the -- or some of
10 the types of outages -- planned outages and what have you
11 and just looked at equipment-related outages. So outages
12 caused by equipment failures.

13 And so what we found -- and so this outage data
14 went for 11 years. And what we found is that 80 percent
15 of the lines had fewer outages than Caribou-Palermo. The
16 other way to look at it would be that 20 percent of the
17 lines had more -- and these are all the -- and sorry --
18 the WSIP. Again, that's the Wildfire Safety Inspection
19 Program lines. I think there are about 550 total lines
20 in this -- in the WSIP purview. Twenty percent of the
21 lines would have had more outages than Caribou-Palermo.
22 Eighty percent less.

23 Q. So again, can you define an outage for us.

24 A. An outage -- so this is an equipment-based
25 outage. So these are outages that were caused by
26 equipment problems.

1 Q. I guess just the basics. What is an outage?

2 A. An outage is when the line trips and the power
3 goes out.

4 Q. So the power going through the line is
5 disrupted?

6 A. Sure, yeah.

7 Q. Failure. Another word for failure or momentary?

8 A. Sorry. I didn't quite catch that.

9 Q. Other words for it -- PG&E words for it would be
10 failure or momentary. Is that true?

11 A. I don't know.

12 Q. Okay. All right. So and as opposed to some of
13 the conclusions, what we referred to as comparison lines,
14 you're talking about the entirety of the WSIP; right?

15 A. Right.

16 Q. You're not just limited to the comparison lines?

17 A. Correct.

18 Q. All right. And finally, number 14.

19 A. "Caribou-Palermo and other North Fork Feather
20 River Canyon lines appear to have a unique set of factors
21 contributing to increased rates of high priority cold-end
22 hardware tags relative to other comparison lines.
23 Factors such as design, link connections, a large number
24 of non-insulated conductors, long duration exposure to
25 higher winds, age, and historical inspection
26 methodologies likely all contributed to these cold-end

1 hardware wear issues."

2 Q. What role does age play in that conclusion?

3 A. Well, this is a time-related process. Wear is a
4 time-related process. And so the older something is the
5 longer it has to -- to wear out.

6 Q. Is that a new concept in engineering?

7 A. No.

8 Q. Did you discover something new in looking at the
9 wear on the Caribou-Palermo line?

10 A. I think the thing that we discovered that may be
11 fairly new is this whole non-tensioned conductor issue.
12 I think in general, at least my knowledge of the power
13 industry, has been largely focused on the tensioned
14 conductors, the part of the conductors that span from
15 tower to tower when they're under high stress.

16 The fact that these non-tensioned jumpers also
17 wear and seem to wear at a high rate, I hadn't seen
18 anything in the literature that talked about that.

19 Q. We talked earlier about this concept that you
20 described for us of fretting. Was fretting a known
21 engineering concept prior to the Camp Fire?

22 A. Yes.

23 Q. And how long has fretting been a known
24 engineering concept?

25 A. That's a good question. There's probably some
26 historical papers. Probably 1800s is when people first

1 started figuring out fretting. Fretting happens a lot in
2 bearings. So certainly as long as there have been
3 bearings people have seen fretting.

4 Q. So for a while it's been known or for over
5 100 years it's been known that when you have two pieces
6 of metal rubbing against each other, that one or both is
7 going to wear; correct?

8 A. There are lots and lots of -- I mean, wear is a
9 complicated process. But, in general if you have two
10 pieces of metal rubbing back and forth, that depends on
11 how much they rub, the distance of rubbing, the
12 lubrication and all of that. But you can -- certainly
13 it's well-known you can definitely get wear if you have
14 two pieces of metal rubbing.

15 Q. And there are ways to slow or eliminate that
16 process; correct?

17 A. Sure.

18 Q. All right. So I'm not going to make you go
19 through the entirety of your report.

20 A. Thank you.

21 Q. But I do want to talk about and have you
22 describe this section of limitations and what are
23 limitations and how do they affect the conclusions.

24 A. So limitations are basically something that we
25 put -- as an engineering consulting company we put
26 limitations in every one of our reports. And that's for

1 the reader to understand the limitations of our analysis.
2 And so that first paragraph basically lays out what we
3 looked at, you know, the extent of what our investigation
4 covered. And then we basically say, you know, "We've
5 relied on PG&E to help select representative comparison
6 lines and structures as well as with regard to the
7 quality and completeness of the data that they gave us."

8 Q. Familiar with the term "garbage in, garbage
9 out"?

10 A. I'm -- I'm well -- as an engineer you hear that
11 a lot "Garbage in, garbage out."

12 Q. Is that what that final sentence is talking
13 about in the first paragraph there?

14 A. Maybe not quite as colorfully as that, but it's
15 basically saying, you know, this -- you know, we relied
16 on PG&E for the data and we had no way to independently
17 verify that data.

18 Q. So, for instance, we talked about the inspection
19 and patrol records that you relied upon when -- as part
20 of your investigation. And if those inspection patrol
21 records weren't complete, weren't accurate, then that
22 would affect the final conclusions based upon those
23 records; correct?

24 A. That is fair, yeah.

25 Q. All right. Next, the scope of the services.
26 Can you explain.

1 A. Yeah. So this stuff is, you know -- so this one
2 is the second paragraph. You know, that's basically
3 saying that anybody who is using this is at their own
4 risk, that we're not predicting any future life or
5 performance. You know, you can't read this report and
6 say "Oh, I think all the other lines are good or bad or
7 what have you." It's just specifically about what we
8 have been talking about.

9 Q. All right. And third paragraph.

10 A. Then the third paragraph is basically, you know,
11 our promising that we have made all of these -- these
12 conclusions to a reasonable degree of engineering
13 certainty and we've made every effort to be accurate and
14 completely investigate these areas in our investigation.

15 If something new comes up or if somebody finds a
16 mistake or an issue, we ask that they let us know so that
17 we can take a look at it and see if we need to fix
18 something.

19 Q. All right. And then if you could describe for
20 us the scope and the background.

21 A. So the scope is really the ask. So what were we
22 asked to do in this analysis?

23 Q. All right. And the "PG&E Enhancement Inspection
24 and Repair Tag Process."

25 A. So this is just a background section on how PG&E
26 does their inspection and repair tag process.

1 Q. And that's the information provided to you as
2 provided by PG&E?

3 A. Correct.

4 Q. And then Table 1, the priorities.

5 A. Right. So those are -- you see the A, B, E, F
6 in the column over there. Those are the ratings for the
7 tags. So an "A" tag is something that is -- it's pretty
8 bad and you need to perform immediate corrective action.
9 "B" basically they say "Okay. We need to fix this within
10 three months." "E" is within a year, "F" within -- it
11 needs to be fixed, but you don't need to fix it for a
12 year or more than a year.

13 Q. And then this final paragraph during PG&E's
14 enhanced inspection.

15 A. Right. So this is kind of restating the reason
16 why we got involved. So people found -- CPUC, I suppose,
17 found what they believed to be high rates of "A" and "B"
18 tags as part of this post-Camp Fire enhanced inspection
19 and they want to know "Well, what's going on?"

20 And so we were asked to, one, evaluate whether
21 it really did in fact have a greater number of high
22 priority tags. And that was easy to figure out if it had
23 more tags. Then when we did that normalization, we made
24 sure that, you know, we divided by the number of tags
25 with the number of steel lattice towers and compared that
26 apples-to-apples style for other lines and their tags and

1 their steel lattice towers. So that was number one.

2 And then number two was to help figure out
3 why -- so if number one is true, so why do we have
4 increased high priority tag counts on Caribou-Palermo?

5 Q. All right. And next up is the documents
6 reviewed.

7 A. Right.

8 Q. Kind of walk us through.

9 A. So we -- the first bullet, that's all the
10 corrective action work orders generated on
11 Caribou-Palermo and the comparison lines. And so this
12 includes staging tags, which PG&E denotes as S5 tags.

13 Q. What is staging?

14 A. So that means an inspector saw an issue, but
15 they hadn't -- it hadn't been evaluated yet by their team
16 of inspectors, general inspectors to put it to the next
17 step which was an LC tag.

18 Q. Okay. Go ahead.

19 A. So we looked at all these tags, the S5 tags and
20 LC tags. We eventually were able to not have to include
21 the S5s and everything else. We kept it as LC tags
22 across the board for all the lines. So those are the
23 high priority, the "A" and "B" tags.

24 We also analyzed and cataloged for Camp Fire,
25 the -- the E and F tags, the lower priority tags.

26 Second bullet we looked at all pre-Camp Fire

1 high priority tags from 2000 to 2019. We looked at the
2 enhanced inspection forms. They're called pronto forms.
3 Those are the forms the inspectors fill out.

4 Q. Those would have been post-Camp Fire; correct?

5 A. Correct.

6 Q. Okay.

7 A. And then the next bullet we looked at all the
8 available drone images through -- we had them all through
9 May 2019. We're talking thousands and thousands and
10 thousands of images on there for Caribou-Palermo and
11 these other lines.

12 We used the drone images to -- part of the big
13 thing we did with the drone images was to figure out what
14 kind of components were on the various lines, try to sort
15 out "Well, is one component type more prone to wear than
16 the other component types?"

17 Next, asset information from the GIS data.
18 That's basically their mapping data that shows what steel
19 lattice towers they have, if they have wear, what sort of
20 conductors they have with those towers.

21 Detailed climbing inspection forms for the
22 inspections carried out prior to the Camp Fire. We
23 looked at design books for towers for Caribou-Palermo and
24 several other comparison lines. We wanted to see what
25 sorts of components and hardware they had with the
26 original design and how that might have changed over the

1 years if it did.

2 We've already -- the next bullet we've already
3 talked about which is all the wind and weather records
4 and then the historical maintenance and inspection
5 records from 2001 to 2018.

6 Oh, and there's still more. So we also looked
7 at the outages from 2007 to 2018. We looked at the PG&E
8 Electric Transmission Preventative Maintenance Manual;
9 the ETPM. We had a few interviews with PG&E subject
10 matter experts for them to answer some of our questions
11 and to help us select the comparison lines. Those
12 meetings were done with CPUC personnel in the room as
13 well.

14 And we looked at the Cal Fire Camp Fire
15 investigation photographs. And there is a book that we
16 referenced in the report on -- from Electric Power
17 Research Institute on wind-induced conductor motion.

18 Q. All right. So then it goes through your
19 methodology.

20 A. Yep.

21 Q. And your choice of comparison lines.

22 A. Right.

23 Q. And why don't you talk to us a little bit about
24 choice of comparison lines.

25 A. Yeah. Well, you see the four bullets. So we
26 wanted to compare similar lines. And Caribou-Palermo was

1 a 115 kV line. So we picked 115 or 230 kV lines for
2 comparison. A couple of the -- a couple of the lines in
3 North Fork Feather River Canyon are 230s. 230s and 115s
4 are apparently fairly similar in terms of construction
5 and in terms of inspection methodologies by PG&E.

6 We wanted elevations greater than a thousand
7 feet. We wanted single circuit steel lattice towers and
8 we wanted Tier 2 or Tier 3 fire zones. We also wanted
9 similar age of towers.

10 Q. So how many comparison lines did you ultimately
11 find?

12 A. So ultimately we found -- it says in the next
13 paragraph ultimately we found 43 comparison lines.
14 However, of those 43 there were 15 that had relative few
15 steel lattice towers; less than 30. And the fewer steel
16 lattice towers you have, the more -- the more difficult
17 it is to analyze on an apples-to-apples basis in terms of
18 any kind of rate. So we excluded those 15 leaving us
19 less than 30 towers. So that left us with 28 in the
20 comparison group, nine of which were 115 kilovolt and 19
21 which were 230.

22 Q. So going back to the conclusions from earlier,
23 so of those 28 lines four of the five in terms of the
24 highest tag numbers were in Feather River Canyon?

25 A. Yep.

26 Q. All right. So a couple more things I want to go

1 through. Table 2. Is this list the comparison lines?

2 A. Yes.

3 Q. One of the things that I highlighted on there is
4 that it indicates that the approximate install date of
5 the Caribou-Palermo is 1908. Can you explain that.

6 A. Yeah. So as you folks may or may not know, the
7 hydroelectric Caribou-Palermo dam was put in in the early
8 1920s. A lot of these lines have kind of switched.

9 So there was no original Caribou-Palermo line.
10 It started off -- they started off from multiple
11 different lines from multiple different companies and
12 they basically did merge it and everything else. So the
13 1908 is basically as best we can tell the oldest part of
14 the currently existing Caribou-Palermo line.

15 Q. And I'm going to go back and clarify one thing.
16 On the list of these comparison lines you said there are
17 28. Is that 28 including the Caribou-Palermo or 28 in
18 addition to the Caribou-Palermo?

19 A. I believe it's 28 in addition to the
20 Caribou-Palermo.

21 Q. All right.

22 A. We can go back and check. I'm not sure if it's
23 included or not. Oh, it says right there "including
24 Caribou-Palermo." Very good. Okay.

25 Q. Good. All right. So there are a couple other
26 things. Here we're looking at a map on page 5. And

1 briefly explain this to us.

2 A. So this is a color-coded map of the 28
3 comparison lines including Caribou-Palermo.
4 Caribou-Palermo -- I'll just scooch over.

5 Q. And feel free to stand up and use the board.

6 A. Okay. Sure. So Caribou-Palermo is in yellow
7 right here (indicating). And you can see that there's
8 some other lines that parallel Caribou-Palermo for these
9 parts of the length of Caribou-Palermo.

10 Q. Right. A couple of other terms that I wanted to
11 have you define. First of all, there's binned. You
12 referred multiple times in this report to the term
13 "binned." Here we're on page 6.

14 And did I get this right? Yep. Page 6, the top
15 paragraph under "Corrective action tag review" it says
16 "The lower priority 'E' and 'F' tags were binned."

17 Can you explain to us what it means to binned
18 something?

19 A. So to binned something is to group that data.
20 So we grouped the lower priority "E" and "F" tags.

21 Q. All right. The next term would be "normalized."

22 A. Okay. And so then normalizing is that concept
23 of dividing the number of tags along a line, along, you
24 know, many, many miles of electric transmission lines by
25 the number of towers in that -- in that line to give it
26 equal weight. It's a way for us to compare apples and

1 apples.

2 Q. All right. And then there's this section
3 describing north and south designations.

4 A. Right.

5 Q. And then the maps.

6 A. Right, showing north and south.

7 Q. All right. So basically it looks like the
8 cutoff between north and south is right at about Big
9 Bend.

10 A. Exactly, right.

11 MR. NOEL: All right. Other than that, anything
12 else?

13 Anything else you can think of?

14 MS. DUPRE-TOKOS: No.

15 MR. NOEL: I think that's all I have.

16 Do the jurors have any?

17 Okay. The jurors are allowed to ask some
18 questions.

19 THE WITNESS: Oh, good.

20 MR. NOEL: So we'll go over these.

21 [Conferring off the record.]

22 BY MR. NOEL:

23 Q. All right. So the first question is "In your
24 opinion given the age of the Caribou-Palermo -- PG&E
25 Caribou-Palermo should PG&E upper levels of management
26 been aware of the component issues and the potential for

1 disastrous affects?

2 A. That's an excellent question. That is something
3 that I did not explore at all in this analysis. I was
4 focused on just looking at why Caribou-Palermo had more
5 tags than others. I haven't done any sort of analysis
6 into what PG&E should have known or not.

7 Q. "In your opinion given your analysis could the
8 Caribou-Palermo line be described as critically old and
9 fatigued?"

10 A. The word "fatigued" to a failure analysis
11 metallurgical engineer has specific meaning and that
12 means growing fatigue cracks and that sort of thing. I
13 haven't done any sort of analysis to see if it has
14 fatigued cracks or what have you.

15 I wouldn't necessarily describe it as critically
16 old or fatigued. Like any infrastructure, you have to
17 maintain it. And if you maintain it, they can last a
18 long, long, long time.

19 Q. Have you seen any evidence to indicate PG&E
20 engineering asset management personnel were or should
21 have been aware of the age and potential for catastrophic
22 failure of the components?

23 A. Again, that's not something that I analyzed.

24 Q. In your scientific opinion is age of a metal
25 construction element an important element in evaluating
26 the strength or reliability of such components?

1 A. These are good deep questions. I teach a class
2 at Stanford on occasion in similar things. So I can give
3 you an answer that's not necessarily really part of my
4 analysis. But left by itself as long as it's not
5 corroding away, steel doesn't get weaker with time. It
6 will stay -- it will stay strong. Really corrosion is a
7 process that would cause it to go away.

8 That said, things like wear, things like fatigue
9 do have a time component because the more times you rub
10 that metal against each other, the more chance you have
11 to -- to create wear. The more times you cyclically load
12 the spring in your garage door, the longer you do that,
13 the more chance you are going to initiate a fatigue crack
14 and eventually grow it.

15 But again, I didn't do anything specifically to
16 look at critical ages or chance of catastrophic failure for
17 this -- for these lines.

18 Q. Just a follow up on that. As part of your
19 investigation and your analysis, did you look at any PG&E
20 engineering studies on the wear of the cold-end
21 attachment points?

22 A. I didn't look at any PG&E studies on cold-end
23 attachment wear.

24 Q. Or any PG&E studies on worn C-hooks and tensile
25 strikes?

26 A. I have seen -- it wasn't part of this study, but

1 I have seen pictures of worn C-hooks and cracked C-hooks.

2 Q. And those pictures include the grooving or the
3 fretting like this?

4 A. Right.

5 Q. And how did you see those?

6 A. I don't recall if it was just in the media or
7 what. Oh, actually I do know. It was -- actually, it
8 was part of this. We had the Cal Fire pictures, and I
9 saw the pictures of the C-hooks with grooves and
10 fractured components.

11 Q. So that wasn't part of what PG&E provided to
12 you?

13 A. That was from Cal Fire that I got that.

14 Q. Would that have been of any use to your
15 investigation in your ultimate conclusions?

16 A. Well, I mean, it actually drove our whole
17 investigation. That's why we were focused on the wear
18 was -- was based on those Cal Fire images of the actual
19 accident.

20 But remember, we were limited. Our analysis was
21 limited to does Caribou-Palermo have more tags than the
22 other lines and, b, why does it have more? And so those
23 are the two questions that I was asked to look at.

24 Q. Finally, do you know if PG&E board of directors
25 or the chief of operations or any other PG&E company-wide
26 management personnel are or were briefed on the potential

1 engineering safety issues prior to the Camp Fire?

2 A. Yeah, no idea.

3 MR. NOEL: All right. Thank you, Mr. James.
4 And Madam Foreperson will have an admonishment for you.
5 I appreciate you being here today.

6 THE WITNESS: Okay.

7 GRAND JURY FOREPERSON: Mr. James, you are
8 admonished not to discuss or disclose at any time outside
9 of this jury room the questions that have been asked of
10 you or your answers until authorized by this grand jury
11 or the Court. A violation of these instructions on your
12 part may be the basis for a charge against you of
13 contempt of court. This does not preclude you from
14 discussing your legal rights with your own attorney.

15 Mr. James, what I have just said is a warning
16 not to discuss this case with anyone except the Court,
17 your lawyer, or the attorney district attorney.

18 Do you have any questions?

19 THE WITNESS: No.

20 GRAND JURY FOREPERSON: Okay. Thank you for
21 your time today.

22 THE WITNESS: Thank you.

23 MR. NOEL: All right. Thank you, Sir.

24 I will take this. We've got to make sure the
25 witnesses don't walk out with the exhibits. It has
26 happened. We have had to chase at least one down.

1 THE WITNESS: Thank you.

2 [Witness Brad Mr. James exits the courtroom
3 as witness Frank Dauby enters.]

4 MR. NOEL: All right.

5 GRAND JURY FOREPERSON: Mr. Dauby, before you
6 have a seat, please raise your right hand to be sworn.

7 Mr. Dauby, you do solemnly swear -- pardon me.
8 Just give me a minute.

9 Do you solemnly swear that the evidence you
10 shall give in this matter pending before the grand jury
11 shall be the truth, the whole truth, and nothing but the
12 truth so help you God?

13 THE WITNESS: I do.

14 GRAND JURY FOREPERSON: Thank you. Have a seat,
15 please.

16 MR. NOEL: It's another short one.

17 THE WITNESS: If I could make one comment. I'm
18 not retired.

19 MR. NOEL: We'll get to that in a second.

20 All right. Are we ready?

21 GRAND JURY FOREPERSON: We are ready.

22 **EXAMINATION**

23 BY MR. NOEL:

24 Q. All right. Mr. Dauby, for the record, can you
25 please state your full name spelling your last name.

26 A. My full name is Frank A. Dauby, Jr. Last name

1 is pronounced Dauby, spelled D-a-u-b-y.

2 Q. All right. Now, you said something about not
3 being retired.

4 A. That's correct. I am presently employed by
5 Pacific Gas & Electric Company.

6 Q. What do you do for PG&E?

7 A. My present role is an in line inspection
8 principal engineer which is part of the Gas Transmission
9 Integrity Management Organization. And I support the
10 continuing inspection of our gas transmission system
11 within the service territory.

12 Q. How long have you been with PG&E?

13 A. I have been with PG&E -- it was 35 years in July
14 of this year.

15 Q. First of all, are you an engineer?

16 A. Yes.

17 Q. Can you walk us through your educational
18 background.

19 A. Sure. So I have a Bachelor's of Science in
20 civil engineering from the Georgia Institute of
21 Technology, graduated in 1984 and immediately thereafter
22 came to work for Pacific Gas & Electric Company.

23 Q. Is there a more common name that we might know
24 the Georgia Institute of Technology?

25 A. Yeah. Georgia Tech. And I'm a registered civil
26 engineer in the state of California.

1 Q. How did you get from Georgia Tech to PG&E?

2 A. Well, I was a -- while I was in school, I worked
3 as a Cobb student for Georgia Power mostly on electric
4 major plant construction for an electric generation
5 project. So having utility experience set me up to
6 continue in that career in general although with the
7 Pacific Gas & Electric Company I have essentially only
8 supported the gas transmission facilities infrastructure.

9 Q. If you could, please walk us through your PG&E
10 career, the assignments you've held, the jobs, and a
11 little bit of description of what you were doing.

12 A. Sure. So when I was first hired, I worked as a
13 field engineer. PG&E has a significant construction
14 force that are employees, and I supported the field crews
15 who were installing gas transmission pipeline facilities,
16 either replacement or new pipelines, and some other
17 underground facilities, a little bit of underground
18 electric and underground gas distribution but principally
19 gas transmission.

20 I did that for approximately five years and then
21 I moved into our gas engineering organization first in
22 San Jose and then in San Francisco where I performed
23 design work for new gas transmission pipelines or
24 replacement of gas transmission pipelines. I did that
25 for approximately five years from 1989 to 1994.

26 And then I moved geographically to our Walnut

1 Creek office where I became a pipeline engineer. I
2 covered a specific geographic territory which included
3 what we call mission and vision which is basically most
4 of Alameda County and Stockton division which covers
5 Stockton and that area as well as a couple of our
6 districts which is a slightly different geography
7 covering Tracy and then McDonald Island where our main
8 gas storage facility is located.

9 So I supported those pipelines in those areas
10 for approximately ten years from '94 to mid 2003.

11 In 2002 the federal government issued a new
12 regulation on gas transmission commonly known as the
13 integrity management requirements. And it prompted PG&E
14 to establish an integrity management organization within
15 the gas transmission. At the time it was called
16 California Gas Transmission or CGT for short. And in
17 that organization I became the in line inspection
18 supervising engineer.

19 When we initially started the program, there was
20 only myself and one other engineer in the program. It's
21 continued to grow since then.

22 I was the supervising engineer from 2003 to, as
23 I recall correctly, slightly after San Bruno, which was
24 in September of 2010. So sometime in early 2011 when my
25 supervisor took a different position, I became a manager
26 over the in line inspection engineering team as well as

1 the direct assessment engineering team within the
2 interior management organization.

3 I continued in that role -- I believe it was
4 2016 with a brief rotation as the director for integrity
5 management back in 2012. I continued in the manager role
6 until 2016 and then the gas transmission organization
7 created a new position for an in line inspection
8 principal engineer. And I applied for that position and
9 was named in that role which I continue in to today.

10 Q. You mentioned that in 2002 the federal
11 government changed the rules or changed the law and
12 mandated the creation of the Integrity Management
13 Division, the Gas Transmission Division. Was that the
14 Pipeline Safety Act?

15 A. Yes, that was the Pipeline Safety Act of 2002.

16 Q. Describe for us the Pipeline Safety Act of 2002.

17 A. It became the regulations that are tied to the
18 Pipeline Safety Act. Basically, the Pipeline Safety Act
19 was passed by congress and then PHMSA, which is the
20 regulatory body. It's part of the federal government.
21 Pipeline Hazardous Material Safety Administration then
22 creates actual rules that go into the Code of Federal
23 Regulations or Gas Transmission Code of Regulations
24 referred to CFR-192. It has a large number of parts.

25 So the Pipeline Safety Act added a brand new
26 part called Subpart O. And the Subpart O basically

1 required all US operators to identify all sections of
2 their pipelines that fit the definition of a high
3 concentration area. Basically it's around population
4 density. And it required lines that fell within these
5 high concentration areas, otherwise known as HCAs, to be
6 inspected proactively on a periodic basis.

7 It provided for a ten-year -- what they call a
8 baseline plan where all those high concentration areas
9 had to be inspected between -- the law went into effect
10 the day that the president signed it into effect which
11 was December 17, 2002. And thus all US operators had to
12 inspect all of their high concentration areas by
13 December 17, 2012.

14 And it provided four basic ways of inspecting
15 your pipelines. And those methods were tied to specific
16 threats that each pipeline has. The threat -- as an
17 example, all of PG&E's transmission lines are made of
18 steel. Steel can obviously corrode. So 100 percent of
19 our gas transmission system has external corrosion as a
20 threat. So that's a threat to the integrity of the
21 pipeline if it corrodes.

22 Q. All right. Let's back up a little bit and break
23 that down.

24 A. Sure.

25 Q. Prior to the Pipeline Safety Act of 2002, was
26 there a federal requirement that gas transmission

1 companies routinely inspect their pipes?

2 A. Basically, no.

3 Q. Prior to 2002 and the enactment of the Pipeline
4 Safety Act, was PG&E doing preventative maintenance
5 inspections of its pipelines? It's gas transmission
6 pipelines?

7 A. Well, the -- you know, federal code has been in
8 place since 1970. So in terms of performing maintenance
9 activity PG&E was performing maintenance activities such
10 as doing leak patrol or installing and maintaining
11 protective systems to prevent external corrosion on
12 pipelines. There's a lot of other design and maintenance
13 requirements that were already in existence that PG&E was
14 in compliance with. They were not performing the types
15 of inspections that were then required by the Pipeline
16 Safety Act.

17 Q. Right. And the Pipeline Safety Act basically
18 created a requirement for preventative inspections;
19 correct?

20 A. You could use that term.

21 Q. Right. You weren't waiting for a problem. You
22 were supposed to go out on a regular basis and inspect
23 the pipelines and try to identify potential problems
24 before they occurred; correct?

25 A. That is the intent. The overall intent of the
26 Pipeline Safety Act was to improve upon safety by finding

1 problems with or integrity issues with the pipeline
2 before they either leaked or ruptured.

3 Q. Okay. And prior to the Pipeline Safety Act
4 there was no such requirements?

5 A. That's correct.

6 Q. And prior to the Pipeline Safety Act PG&E didn't
7 have any policy or were not routinely doing preventative
8 inspections with the gas transmission pipelines; correct?

9 A. That's correct.

10 Q. Okay. All right. Now, you talked about -- this
11 is the last thing we'll talk about before we go to lunch.
12 Inspection methods and threats. You said there were --
13 that the Pipeline Safety Act or Subpart O approved four
14 different inspection methods based upon known threats.
15 Can you kind of explain that to us a little bit.

16 A. Sure. So what I said with the example of the
17 external corrosion was one threat. So there's a number
18 of threats. I won't go through each one individually.
19 There's nine basic categories that are laid out in the
20 code and the industry reference that are incorporated by
21 federal code that U.S. pipeline operators have to
22 consider when determining what their assessment methods
23 need to be.

24 So there has to be an alignment between the
25 threat on the pipeline and what the inspection method
26 needs to be so that it can address that given threat.

1 Q. Okay. What are some of the well-known common
2 threats to a transmission -- gas transmission pipeline?

3 A. Well, in addition to external corrosion there's
4 internal corrosion. There's stress corrosion, cracking.
5 There's third-party damage which means someone that is a
6 third party, you know, hits the line through excavation
7 activity or farming. That kind of thing.

8 There's equipment failure that could cause an
9 overpressure event. There's operator error where
10 they're, you know, not operating correctly. Those are
11 some of them.

12 Q. How about manufacturing threats?

13 A. Yes, that's definitely. Manufacturing,
14 construction.

15 Q. What's a manufacturing threat?

16 A. An example of a manufacturing threat is
17 basically something that is inherent in the pipe. It
18 comes out of the mill, the pipe mill such that it has a
19 certain number of defects. No pipe is 100 percent
20 defect-free. There are industry standards that changed
21 over the years in terms of what level of defects are
22 acceptable, but there's certain known threats on certain
23 types of pipes that were manufactured in the United
24 States over the last century or so that exhibit
25 themselves in service and then they could cause the pipe
26 to fail years later.

1 Q. How does the code Subpart O tie inspection
2 methods to known threats?

3 A. There's specific language in -- there's an ASME
4 document that's incorporated by referencing Code ASME
5 31.8S, as in Sam, that spells out what appropriate
6 technologies can be used to address what specific
7 threats.

8 Q. Okay. Are all inspection methods appropriate to
9 assess for all known threats?

10 A. No, they are not.

11 MR. NOEL: This is probably a good time to take
12 our lunch break before we start getting into the
13 exhibits.

14 GRAND JURY FOREPERSON: Okay. Okay. Mr. Dauby,
15 I'd like to read you an admonishment. You're admonished
16 not to discuss or disclose at any time outside of this
17 jury room the questions that have been asked of you or
18 your answers until authorized by this grand jury or the
19 Court. A violation of these instructions on your part
20 may be the basis for a charge against you of contempt of
21 court. This does not preclude you from discussing your
22 legal rights with your own attorney.

23 Mr. Dauby, what I have just said is a warning
24 not to discuss this case with anyone except the Court,
25 your lawyer, or the district attorney.

26 Do you have any questions?

1 THE WITNESS: No, I do not.

2 GRAND JURY FOREPERSON: Okay. Thank you.

3
4 [DISCUSSION OMITTED.]

5
6 [Lunch recess taken from
7 11:53 a.m. until 1:33 p.m.]

8
9 [ROLLCALL OMITTED.]

10
11 GRAND JURY FOREPERSON: Mr. Dauby, just to
12 remind you, you are still under oath.

13 THE WITNESS: Understood.

14 GRAND JURY FOREPERSON: Please have a seat.

15 **EXAMINATION CONTINUED**

16 BY MR. NOEL:

17 Q. All right. So when we broke for lunch, we were
18 talking about the different types of threats to a
19 pipeline. The other half of that is what are the
20 different types of inspection methods that are approved
21 under the Pipeline Safety Act?

22 A. So Subpart O of the integrity management section
23 of federal code allows four assessment methods. The
24 first is strength testing often referred to as
25 hydro-testing because it requires a pipeline be taken out
26 of service, filled with liquid medium meaning water or

1 potentially air or nitrogen, and then tested to a
2 pressure that is significantly higher than it would see
3 in normal operations. And there's provisions for exactly
4 what that pressure needs to be.

5 The second method is in line inspection, which
6 is my area of expertise, where an instrumented device
7 commonly referred to as a PIG or a Smart PIG is inserted
8 into the pipeline for a certain distance. It collects
9 data on the pipeline's integrity and then it is retrieved
10 at the other end. And these Smart PIGs are provided by
11 vendors that operate in a worldwide market. And they're
12 basically -- PG&E would -- or the operator would contract
13 with one of these vendors to provide the in line
14 inspection devices and then analyze the data and provide
15 a report.

16 The third method is called direct assessment
17 commonly referred to as DA. And there's three different
18 types of DA. There's associated with specific threats.
19 There's ECDA for external corrosion direct assessment for
20 the threat of external corrosion, ICDA or internal
21 corrosion direct assessment, and SCCDA which is stress
22 corrosion cracking direct assessment.

23 And then the fourth type of assessment is
24 basically referred to as "other technologies." So the
25 code allows for provisions for change in technology that
26 may occur over time. An operator can apply to the

1 regulator, which in PG&E's case it would be the
2 California Public Utilities Commission -- on the federal
3 level it would be NNSA -- to approve specific technology
4 for an assessment that's not already covered in code.

5 Those are the four types.

6 Q. And what does Subpart O say about how to select
7 your assessment type or your assessment tool for doing a
8 specific inspection of a pipe?

9 A. It required that the operator select the best
10 suited assessment method for the threats that existed on
11 a given pipeline within a high concentration area.

12 Q. What does it mean to be best suited?

13 A. I can provide you my opinion in that regard, but
14 there's no guidance provided in federal code or any of
15 the industry references that I'm familiar with that
16 provide any further guidance regarding what best suited
17 means.

18 Q. Okay. We'll just go on. Now, did PG&E have its
19 own internal policies as to how to choose assessment
20 methods?

21 A. Yes.

22 Q. Can you describe those for us, please.

23 A. Could you help me in terms of what timeframe
24 you'd like me to answer the case based on.

25 Q. Pre-San Bruno.

26 A. Sure. So specifically before San Bruno there

1 was flowcharts that were part of our integrity management
2 standard and procedures which provided guidance as to
3 what technology or assessment method to use based on
4 specific criteria.

5 For example, in an in line inspection they were
6 looking for pipelines that had over five miles of high
7 concentration area within a section and lines operated at
8 adequate pressure such that they were -- I believe it was
9 a threshold of over 30 percent which basically means
10 30 percent of the yield strength of the steel that the
11 pipe is made out of.

12 Q. Were you actually involved in the writing of
13 those policies, those flow charts?

14 A. I had the opportunity to make comments on them
15 in the time period that PG&E was developing the integrity
16 management program in the 2003/2004 timeframe. Yes, I
17 had some influence.

18 Q. Walk us through a first time in line inspection.
19 What goes into actually doing the inspection?

20 A. So an in line inspection project typically takes
21 three to five years from inception through completion.
22 That's because these are PG&E systems. It wasn't built
23 for -- to be PIGable or to be able to run in line
24 inspection devices. So it typically required a large
25 amount of retrofit or replacement of features in our
26 pipelines that were not -- that the in line inspection

1 device could not negotiate.

2 So that would include things like valves that
3 weren't full openings, tees or large tabs that the PIG
4 could get stuck in if they weren't bared, which was
5 basically like a grate to prevent them from going where
6 it's not supposed to go, installation of launchers and
7 receivers at given points along the pipeline system.

8 So those had to be designed and then fabricated
9 and then installed. So that would usually take a couple
10 of years to pay fees and get permits and then perform the
11 inspection. I'm sorry. Then perform the -- what we call
12 upgrade and retrofit.

13 And then usually year three or possibly year
14 four, depending on how long the construction took, we
15 would perform the cleaning and inspection of the
16 pipeline. So that would require running a number of
17 cleaning PIGs to remove any debris or oil, other things
18 that could impede the Smart PIGs from running. And then
19 we would run a geometry tool to confirm the ID of the
20 pipeline in terms of diameter, make sure there's no dents
21 or obstructions, and then we would run an inspection
22 device which would typically be a -- what they call an
23 MFL, magnetic flux leakage, PIG that detects for --
24 inspects for corrosion or wall loss on the pipeline.

25 Following that the in line inspection vendor
26 would analyze the data that they'd collect from the in

1 line inspection tool. They would provide PG&E a report
2 as to the condition of the pipeline and then our
3 engineers would review that report and make a
4 determination as to what needed to be repaired, if
5 anything, as well as do a direct examination of some
6 specific locations on the pipeline to verify that the
7 tool accurately measured the wall loss in the pipeline.

8 And following that there's a fourth phase
9 assessment where you basically document everything that
10 occurred and update your records and determine if there's
11 any longer term mitigation plans that are required to
12 prevent further damage.

13 Q. Is it safe to say that steps one through three
14 for a first-time in line inspection are time consuming
15 and costly?

16 A. Yes, that is correct.

17 Q. Compared to a direct assessment was a first-time
18 in line inspection much more time consuming and costly?

19 A. Yes.

20 Q. And in terms of actual inspection findings, in
21 your experience did in line inspections tend to find more
22 problems than direct assessment?

23 A. Yes. We rarely used both technologies on the
24 same pipeline, but we definitely found more corrosion and
25 other types of damage using in line inspection than
26 similar projects that used direct assessment.

1 Q. In your experience was in line inspection better
2 at finding issues before they became problems within the
3 pipes?

4 A. Yes. Essentially, the same answer. They'd both
5 be technologies that would be looking for problems or
6 threats that they're designed to assess for prior to them
7 deteriorating to the point that the pipe, you know,
8 leaked or ruptured.

9 Q. So what kind of threats would in line assessment
10 be better suited to assess than direct assessment?

11 A. Well, the main threats that PG&E utilized in
12 line inspection for was external corrosion and internal
13 corrosion. So in both those regards I would say that in
14 line inspection provided a more thorough assessment and
15 found more issues than direct assessment.

16 Q. How would an in line inspection find external
17 corrosion?

18 A. Well, the in line inspection tool, as I briefly
19 referenced, uses a magnetic field that saturates the pipe
20 wall with magnetic plugs and then it detects the unit
21 sensors that are basically between the North and South
22 Pole that is -- moves along the inside of the pipeline.
23 And based on changes in that magnetic field, the -- it
24 records when you do the live analysis and then assigns
25 the amount of metal loss to a fairly high degree of
26 accuracy.

1 Q. So let me see. In line inspection could be used
2 to assess manufacturing threats; correct?

3 A. If it's -- if it's -- if the right technology is
4 incorporated on the -- on the underlying tool, then the
5 answer would be yes.

6 Q. Manufacturing threats would be things like
7 long-seam welds which were very common, what, prior to
8 the '70s in gas pipes?

9 A. Well, there's a variety of long-seam welds.
10 Even with, you know, pipe manufacturers today most of it
11 has some type of a long-seam weld. There are different
12 types of welding techniques.

13 Q. I was referring generally to something called
14 ERW. Is that correct?

15 A. Yes. There is -- ERW refers to electric
16 resistance welded pipe. It's a well-known industry issue
17 that the ERW manufactured back in the '50s. 1950s, 1960s
18 they used a welding process they called low frequency.
19 It has to do with the frequency of the current that was
20 induced into the pipe to make it fuse together and that
21 those were problematic.

22 The industry changed to a high frequency fusion
23 method throughout the late '60s and by early 1970s it was
24 all exclusively high frequency.

25 Q. How much would you estimate of PG&E's gas
26 transmission pipeline was built prior to the '60s?

1 A. Definitely would be an estimation. I would say
2 the majority of the system was built prior to 1970s for
3 sure.

4 Q. So would it be safe to say that a very large
5 portion, if not majority, of the PG&E's gas transmission
6 pipeline had the ERW long-seam weld manufacturing threat?

7 A. Well, ERW is one of the types of seams that were
8 used prior to 1970. There was -- as you're sort of
9 eluding to, there was seamless pipes. There was also
10 double-seam welded pipes. So I can't make that
11 projection in terms of the majority was necessarily ERW
12 although we have a substantial amount.

13 Q. Okay. Could DA be used to assess manufacturing
14 threats?

15 A. No, it cannot.

16 Q. Could DA be used to assess internal corrosion?

17 A. If you're using the ICDA, yes. Internal
18 corrosion direct assessment. ECDA could not.

19 Q. And how often did -- to your knowledge of PG&E,
20 did you use ICDA or did the company use ICDA?

21 A. In the pre-San Bruno it was very rare. There
22 was not very much mileage on our system that was
23 considered at that time to have an internal corrosion
24 threat.

25 Q. And how good, in your opinion, was ECDA,
26 external corrosion direct assessment, at actually finding

1 corrosion threats to the pipelines?

2 A. Well, I don't have a statistic available in
3 terms of how often. It was successful in finding
4 corrosion. I can tell you that even though we were
5 assessing a lot more mileage each year in between 2004
6 and 2010 using ECDA then we were on line, we were finding
7 more external corrosion using ILI than we were DA.

8 Q. So ILI cost a lot more to do the first-time
9 inspections because of all the work that had to go into
10 setting up for it; correct?

11 A. Correct, again including the capital costs, the
12 upgraded pipe costs as well as expense costs of running
13 the tools.

14 Q. And ILI tended to find more problems that needed
15 to be fixed; correct?

16 A. That's correct.

17 Q. Now, you had Subpart O that said that you're
18 supposed to use the assessment method best suited for the
19 known threats; correct?

20 A. That's what the code says.

21 Q. And then you had the internal PG&E policies, the
22 flow charts that kind of mimicked that language to
23 determine whether you should do -- for which assessment
24 you should do; correct?

25 A. I don't know if I can agree that it mimicked the
26 language. It was PG&E's attempt to comply with the code.

1 Q. Right. To set up how you determine what
2 assessment method is best suited for that piece of pipe;
3 correct?

4 A. Correct.

5 Q. All right. So in your experience pre-San Bruno,
6 was PG&E always following its own policies and Subpart O
7 when making a determination of what assessment method to
8 use for pipes?

9 A. We didn't always follow our own policies and
10 sometimes routed exception reports to our existing
11 procedures when they wanted to use an assessment method
12 that didn't align with the existing procedures.

13 Q. In your experience pre-San Bruno how big of a
14 role did budget play in determining what assessment
15 method would be used for different pipelines?

16 A. It was definitely a significant factor.

17 Q. Now, you said earlier that you were not the one
18 who determined which assessment method was going to be
19 used; correct?

20 A. Myself and the in line inspection engineers did
21 not make those decisions. We only determined whether in
22 line inspection would be potentially feasible or not for
23 a given pipeline.

24 Q. Who made the recommendation as to which
25 assessment method between ILI or DA was to be used for a
26 specific pipeline?

1 A. That came out of our risk analysis group. It
2 was part of risk management.

3 Q. Would that be Bill Mangold and his group?

4 A. Correct.

5 Q. Okay. Were there times when the recommended
6 assessment was ILI and that was overruled and DA was done
7 instead?

8 A. Yes.

9 Q. Were you aware of any times where DA was
10 recommended and that was overruled and ILI was done
11 instead?

12 A. No, I'm not.

13 Q. In those cases in which ILI was the recommended
14 assessment tool as the tool best suited for assessing the
15 known threats on that pipeline, why was an exception made
16 and DA was used instead?

17 A. I'm thinking -- because I'm trying to remember
18 what all was put on the exception reports that were
19 routed and approved, which is probably part of my
20 exhibits. So I don't have those memorized, but a large
21 part of the decision was economic and part of the
22 decision was an opinion by our director at the time who
23 heavily favored that we utilize DA over ILI.

24 Q. And the director at the time was who?

25 A. Bob Faucet.

26 Q. And prior to becoming the director, were you

1 familiar with what Mr. Faucet did?

2 A. Not comprehensively but I do know that he was
3 responsible for the -- pretty much the creation and
4 implementation of the DA program at PG&E.

5 Q. You talked about exceptions. And we'll get into
6 that real quick here. So 2010, prior to San Bruno, do
7 you recall that the CPUC was doing an audit of the gas
8 transmission division?

9 A. I recall them doing an audit in early 2010,
10 prior to San Bruno, of the integrity management program,
11 yes.

12 Q. Now, you talked about exceptions. What are
13 exceptions?

14 A. Exceptions are documents that are routed to at
15 least the director level that allowed the organization to
16 do something that is not in alignment with the existing
17 procedure but is still in alignment with federal code.
18 Because we cannot take an exception to federal code.

19 Q. Okay. Are exceptions supposed to be done before
20 you do whatever action or later to justify the action you
21 took?

22 A. They are supposed to be completed before you
23 effectively take the exception.

24 Q. Now, at some point prior to the CPUC audit in
25 2010, were you asked to write exceptions justifying the
26 switch from ILI to direct assessment for different

1 pipelines?

2 A. Yes, I was.

3 Q. And by whom were you asked that?

4 A. By my supervisor at the time Sarah Burke.

5 Q. Okay. And did you write those exceptions?

6 A. Yes, I did.

7 Q. And you should have that exhibit in front of
8 you. I don't have the exhibit list right here. If you
9 can find that and we'll talk about it. It should be 713.

10 A. Bottom of the stack. Now I lost that.

11 Q. All right. Find 713?

12 A. Yes, Sir.

13 Q. All right. Tell us what 713 is.

14 A. It's an e-mail exchange between myself and Sarah
15 Peralta who was my supervisor at the time as well as Jeff
16 Janvier who reported to me at the time on my in line
17 inspection team regarding exception reports that I had
18 initiated several months prior and the e-mail train.
19 It's from November -- mid to late November timeframe
20 2010, about two months after San Bruno had occurred.

21 Q. And just to clarify, Sarah Peralta and Sarah
22 Burke are the same person?

23 A. Yes, they are.

24 Q. All right. So --

25 A. Peralta was her married name. She was
26 previously single and subsequently got divorced. So she

1 went back to it.

2 Q. All right. So give us the context for this
3 e-mail chain.

4 A. Well, since we were all extremely busy just
5 subsequent to San Bruno and I had been pulled off work on
6 some specific project related to some of the peninsula
7 pipelines, Jeff Janvier was filling in for me as the in
8 line inspection supervisor at the time. He was asked to
9 review the exception reports that I had written several
10 months earlier prior to our CPUC audit and to endorse --
11 make an evaluation, as I say, as to whether or not the
12 exception reports were truly required or whether we had,
13 you know, been overly conservative in writing exception
14 reports when in fact they weren't an exception after all.

15 So Jeff had indicated to Sarah that several of
16 the reports were not required. And then I weighed in on
17 November 29th, 2010, as to whether I agreed with that or
18 not.

19 Q. Okay. So I want to start this off. And after
20 the second paragraph it says "First, I'd like to indicate
21 that I feel that the justification for changing these
22 projects from ILI to ECDA should have been initiated and
23 approved by those responsible for the budgets at the time
24 the charges occurred."

25 A. Changes.

26 Q. Changes. I'm sorry.

1 A. Correct, that is what I said.

2 Q. What did you mean?

3 A. I meant -- and you can interpret that I was a
4 bit frustrated in being asked to write justifications
5 from a technical standpoint that were really the result
6 of inadequate funding for our organization in order to
7 perform the in line inspection that we had already --
8 several of these projects we had performed. We had done
9 a lot of work on them. We had done engineering. We had
10 done some construction in most of the cases. And they
11 were basically ready to be in line inspected, but we had
12 inadequate funding to perform the in line inspection and
13 thus we were justifying why they were -- they were
14 switched to DA.

15 Q. You go on to say "Obviously, this did not
16 happen. However, all of who were involved at the time
17 were very aware that these decisions were made for
18 financial, not technical reasons." Correct?

19 A. Correct.

20 Q. You still agree with that statement?

21 A. Yes, I do.

22 Q. So is it a valid conclusion or reasonable
23 conclusion that you're being asked by your boss to try to
24 come up with technical or scientific excuses to justify
25 what was done for budget savings?

26 A. In general I would agree with that.

1 Q. Okay. I have no further questions.

2 Does the jury have any questions for this
3 witness?

4 The jurors are allowed to ask you questions. So
5 they will present those questions in writing.

6 Oh, while they're doing that, real briefly I did
7 forget to mention. You testified in the federal trial;
8 correct?

9 A. Correct.

10 Q. And you were granted immunity by the United
11 States attorney to do so?

12 A. Correct.

13 [Pause in proceedings.]

14 MR. NOEL: I'm not quite sure.

15 GRAND JUROR NUMBER FOUR: I'm asking did he
16 agree with the decisions he made?

17 MR. NOEL: Okay. I got that.

18 BY MR. NOEL:

19 Q. All right. Did you agree with your supervisors
20 or the budget people's decisions that the direct
21 assessment inspections were the best suited assessments?

22 A. No, I didn't agree with that.

23 MR. NOEL: Okay. Anything else?

24 All right. Mr. Dauby, thank you very much for
25 being here. Madam foreperson will have an admonition for
26 you.

1 GRAND JURY FOREPERSON: Mr. Dauby -- sorry.

2 Mr. Dauby. Excuse me.

3 Mr. Dauby, you are admonished not to discuss or
4 disclose at any time outside of this jury room the
5 questions that have been asked of you or your answers
6 until authorized by this grand jury or the Court. A
7 violation of these instructions on your part may be the
8 basis for a charge against you of contempt of court.
9 This does not preclude you from discussing your legal
10 rights with your own attorney.

11 Mr. Dauby, what I have just said is a warning
12 not to discuss this case with anyone except the Court,
13 your lawyer, or the district attorney.

14 Any questions?

15 THE WITNESS: No.

16 GRAND JURY FOREPERSON: Thank you for your time
17 today.

18 [Witness exits the courtroom.]

19 MR. NOEL: So before we bring in the next
20 witness, I'm going to withdraw Exhibits 707 through 712.
21 So those are not going into evidence. I would ask 713 to
22 go into evidence.

23 [Exhibit 713 admitted
24 into evidence.]

25

26 [DISCUSSION OMITTED.]

1
2 [Recess taken from
3 2:08 until 2:33 p.m.]

4 GRAND JURY FOREPERSON: Mr. Lee, before you have
5 a seat, would you raise your right hand to be sworn as
6 soon as everybody is ready and as soon as you are ready.
7 Take your time.

8 Mr. Lee, do you solemnly swear that the evidence
9 you shall give in this matter pending before the grand
10 jury shall be the truth, the whole truth, and nothing but
11 the truth so help you God?

12 THE WITNESS: Yes.

13 GRAND JURY FOREPERSON: Thank you. Have a seat,
14 please.

15 **EXAMINATION**

16 BY MR. NOEL:

17 Q. Mr. Lee, for the record can you state your full
18 name and spell your last name.

19 A. Chris Chang-Shik Lee, L-e-e.

20 Q. Probably should have you spell your middle name.

21 A. Oh, my middle name. Okay. C-h-a-n-g, hyphen,
22 S-h-i-k.

23 Q. By whom are you employed?

24 A. The California Public Utilities Commission.

25 Q. In what capacity?

26 A. I work as a utilities engineer.

1 Q. What is a utilities engineer?

2 A. We work with utility companies. And our section
3 in particular works with electric companies and also
4 power plants.

5 Q. What education, training, and experience do you
6 have that qualifies you for your job?

7 A. I have a master's in mechanical engineering. So
8 looking at my entire CPUC career we've been to -- we've
9 gone through multiple formal training done by consultants
10 and on-the-job training.

11 Q. What kind of on-the-job training?

12 A. Well, initially for audits we would participate
13 as observants. So we'd get paired up with more senior
14 engineers who have experience, greater experience in
15 performing audits and other tasks. So initially we go to
16 observe and then we gradually take on greater roles until
17 we are able to lead ourselves.

18 Q. So describe for us exactly what it is that you
19 do with the utilities?

20 A. Okay. It's a little complex because the first
21 16 years or so my work focused on power plants and in the
22 last three years due to reorganization we started
23 doing -- I started doing more electrical work. So --

24 I'm sorry. Could you rephrase or repeat the
25 question, Marc.

26 Q. In terms of your job now dealing with the

1 electrical utilities, describe for us exactly what it is
2 you do.

3 A. Sure. So our regular work includes scheduled
4 audits. So typically at the beginning of the year our
5 management comes up with audits for the entire year. And
6 this would be audits on electrical distribution systems,
7 substations, transmission systems. And then also on the
8 power plant side we do the same thing. So we get
9 assigned to several of those audits either as an
10 observer, trainee, or lead. So audits are a big part of
11 our work.

12 We also get assigned to incidents. So CPUC has
13 a requirement for incident reports, and as they come in
14 we get assigned to handle particular incidents, customer
15 complaints. So they don't meet the incident reporting
16 requirements but some customer has an issue with the
17 utility company. So as they come in, we get assigned to
18 follow up on those as well. Yeah, I think that -- and
19 then scattered between all those is our ongoing training
20 programs.

21 MR. NOEL: Sorry. We've got a few exhibits for
22 this witness. All right. And they did not whole punch
23 them.

24 GRAND JURY FOREPERSON: Thank you.

25 GRAND JURY SECRETARY: It's okay.

26 BY MR. NOEL:

1 Q. All right. What is the Safety and Enforcement
2 Division of the CPUC?

3 A. Well, we -- we regulate utility companies. So
4 there's a gas section and there's the electric facility
5 section. So I belong to the electrical facility section.
6 So generally speaking, we do audits, scheduled audits,
7 handle incidents, customer complaints. Yeah, I think
8 those are the big areas of our work.

9 Q. In November of 2018 were you assigned to
10 investigate on behalf of the CPUC the Camp Fire?

11 A. Yes, I was assigned to it.

12 Q. So describe for us what it means to be assigned
13 by the CPUC to investigate.

14 A. Well, so when the incident occurred, initially
15 somebody needs to look into it. And I believe I was the
16 only one available at that time because we had other
17 audits scheduled and a lot of people were out. So that
18 is how initially I got assigned to it.

19 And -- and also another factor is the workload.
20 A lot of our -- a lot of my more experienced colleagues
21 were already tied up with other investigations at that
22 point. So initially it meant that we'd go out to the
23 site for the initial fact, for evidence gathering. And I
24 was paired up with another engineer from our Sacramento
25 office. And initially it wasn't clear but -- but soon
26 afterwards it was clear that we were actually going to be

1 in charge of the entire investigation to its conclusion.

2 Q. All right. And the other engineer, who was
3 that?

4 A. The other engineer is Anwar Safvi.

5 Q. Common spelling. It's A-n-w-a-r, S-a-f-v, as in
6 Victor, -i.

7 All right. So let's go through a few
8 preliminary things. You are familiar with the General
9 Orders of the CPUC specifically G.O. 95 and G.O. 165?

10 A. I am familiar with the ones that are relevant to
11 this case.

12 Q. Okay.

13 A. Yeah.

14 Q. So I want to walk you through a few of those.
15 First off, G.O. 95, Rule 18. We can go through that real
16 quick.

17 A. Sure. So you want me to just hit the key
18 points?

19 Q. Yes, please.

20 A. Okay. I'm going to -- I marked my notes. I'm
21 just going to open it up so I am looking at this.

22 Q. Yes.

23 A. Okay. So Rule 18 I think the key component is
24 "taking appropriate corrective action." So if there is a
25 potential problem or if there is a problem, then the
26 utility company needs to take the appropriate action.

1 I think I will withhold from going into details
2 because we will probably hit those later on.

3 Q. Okay. So each company is responsible for taking
4 appropriate corrective action to remedy potential
5 violations of G.O. 95 and safety hazards posed by its
6 utilities?

7 A. That's right.

8 Q. And it also says "For the purposes of this rule
9 'safety hazard' means a condition that poses a
10 significant threat to human life or property."

11 A. Yep.

12 Q. And finally "Each company including utilities
13 and CIPs is responsible for taking appropriate corrective
14 action to remedy safety hazards and G.O. 95
15 nonconformances posed by its facility."

16 A. That is correct. It is kind of broad, but I
17 think -- particularly for this case I think the phrase
18 "appropriate corrective action" was very important for
19 us.

20 Q. All right. And then Rule 31.1.

21 A. Okay. Should we read it or should I just hit
22 the key points?

23 Q. You can go ahead and read the actual language.

24 A. Okay. I will read the first paragraph.
25 "Electrical supply and communication systems shall be
26 designed, constructed, and maintained for their intended

1 use, regard being given to the conditions under which
2 they are to be operated, to enable the furnishing of
3 safe, proper, and adequate service."

4 So again, I'm thinking of just in terms of this
5 case what's important for us is the maintain part because
6 it's already been detained. It's been constructed. So
7 how is it being maintained considering the operating
8 condition?

9 So -- so, yeah. The circumstances, the
10 operating condition, local conditions, they have to be
11 taken into consideration. And in light of all that, the
12 maintenance has to be appropriate to make sure that the
13 system is safe and reliable.

14 Q. Okay. The section goes on to say "For all
15 particulars not specified in these rules, design,
16 construction, and maintenance should be done in
17 accordance with accepted good practice for the given
18 local conditions known at the time by those responsible
19 for the design, construction, and maintenance
20 communication -- maintenance of communication or supply
21 lines and equipment."

22 A. Yep.

23 Q. All right. And then there's Rule 31.2.

24 A. "31.2: Lines shall be inspected frequently and
25 thoroughly for the purpose of ensuring that they are in
26 good condition so as to conform with these rules. Lines

1 temporarily out of service shall be inspected and
2 maintained in such condition as not to create a hazard."

3 Generally, the frequency part we do -- we do
4 leave that up to the utility. And unless there's a good
5 reason, I don't think we request the frequency. But the
6 thorough part "thoroughly," now that's the part that we
7 at least in this case had a chance to look at. You know,
8 how is the quality of the inspections? That's a big -- a
9 big question on our minds.

10 Q. Okay. Next "44.3 Replacement."

11 A. Okay. Okay. This one is pretty
12 straightforward. I will just read it.

13 "Lines or parts thereof shall be replaced or
14 reinforced before safety factors have been reduced (due
15 to factors such as deterioration and/or installation of
16 additional facilities) in Grades 'A' and 'B' construction
17 to less than two-thirds of the safety factors specified
18 in Rule 44.1 and in Grade 'C' construction to less than
19 one-half of the safety factors specified in Rule 44.1.
20 Poles in Grade 'C' construction that only support
21 communication lines shall also conform to the
22 requirements of Rule 81.3A. In no case shall the
23 application of this rule be held to permit the use of
24 structures or any member of any structure with a safety
25 factor less than one."

26 Q. Okay. What is a safety factor and how can it --

1 how can those safety factors be less than one or
2 two-thirds?

3 A. Yes. The safety factor tells you how much room
4 you have beyond the failure point. So safety factor of
5 one means you're right at the tipping point of failure.
6 So obviously you want to be well above safety factor one.

7 Now, just to summarize what I just read, so
8 Rule 44.1 says for this particular line, which is Grade B
9 construction, the safety factor at the time of
10 installation has to be two. Now, more relevant to us is
11 so that when it's installed, it's got to be safety factor
12 of two.

13 Now, after that it's going to start degrading.
14 And this Rule 44.3 says "At all time the minimum safety
15 factor has to be -- cannot be less than two-thirds of
16 two," which is 1.33. So basically that's what it's
17 saying here. You know, it's at two when you start off,
18 but it can never fall below 1.33.

19 Q. Okay. Explain to us exactly what the "one"
20 means.

21 A. One means you have just enough strength in the
22 material to match the load. So you got the load that
23 pulls on whatever components you're looking at. Now,
24 that load is exactly equal to the strength of the
25 material in that equipment or part. So at that point it
26 may or may not -- I mean, it's on the verge of breaking.

1 That's what it means. It's on the verge of breaking. So
2 if you go even a bit below that, it's going to fail.

3 Q. So if you were designing a part to hold
4 something that weighed 100 pounds, if you design that
5 part with a limit of 100 pounds, that would be safety
6 factor one?

7 A. That would be safety factor one.

8 Q. According to this, on grade C construction you'd
9 have to design a part to hold 100 pounds that was
10 designed to hold 200 pounds?

11 A. Initially, that's correct.

12 Q. And then with wear and tear you could let that
13 part go down to where it could hold 133 pounds. But once
14 it gets past that point, it has to be replaced?

15 A. That's correct.

16 Q. Pretty good math for somebody who can't count.
17 All right.

18 A. Yeah, that's great clarification -- clarifying
19 example there.

20 Q. Thank you.

21 A. Keep going?

22 Q. Even a deaf, dumb, and blind squirrel finds a
23 nut every once in a while.

24 All right. So now G.O. 165, Section IV.

25 A. It reads "Each utility shall prepare and follow
26 procedures for conducting inspections and maintenance

1 activities for transmission lines."

2 So for transmission lines G.O. 165, Section IV,
3 basically leaves it up to the utility company to come up
4 with their own rules and codes for maintenance, for
5 maintenance inspection. So this would require us to look
6 at their -- their manual and see if they violated
7 anything according to their own rules.

8 Q. All right. Finally, the Public Utilities Code
9 Section 451.

10 A. Okay. So that's kind of a broad one.

11 "Every public utility shall furnish and maintain
12 such adequate, efficient, just, and reasonable service,
13 instrumentalities, equipment, and facilities, including
14 telephone facilities, as defined in Section 54.1 of the
15 Civil Code as are necessary to promote the safety,
16 health, comfort, and convenience of its patrons,
17 employees, and the public."

18 Simply put basically what it's saying is the
19 utility company must make sure that it provides a safe
20 and reliable system for the public. But what that really
21 means is you need to come up with an effective program to
22 make that happen, effective program for inspection
23 maintenance.

24 Q. All right. So let's walk through real quick the
25 resources that you had at your disposal as part of your
26 investigation. All right.

1 A. Sure. Okay.

2 Q. What are -- walk us through this.

3 A. Sure. So, yes, a data request it's kind of a
4 standard. Since the 2017 fires we do have kind of a
5 standard set of initial data that we request from the
6 utilities. So initially it starts out with -- with that
7 standard one and then as we receive the responses and
8 review them as we gather more information, our subsequent
9 requests become more specific.

10 Q. Okay. Let's start off with what exactly is a
11 data request.

12 A. Data request. So we are -- so I believe we can
13 talk about two different categories. One is just the
14 basic facts about the system that's involved. All right.
15 The age, capacity, whatever it may be but just the basic
16 information about the facilities involved.

17 And then -- and then data request also involves
18 questions. What happened? You know. Why? You know.
19 Why? So what, why, who? So I think broadly it's those
20 two questions and basic information.

21 Q. So at its most basic is the data request a
22 formal request by CPUC of information from a utility?

23 A. Yes, it is. Yeah, it goes out as a formal
24 request.

25 Q. And those are done in writing?

26 A. Those are done in writing.

1 Q. And the utility responds?

2 A. Yes, they respond in writing.

3 Q. Okay. Is the utility required to respond to
4 provide you the requested information or answer your
5 questions?

6 A. I believe it is. They may claim confidentiality
7 on any of those, but they provide the information with
8 indication of confidentiality.

9 Q. So the next resource you have is PG&E records.
10 What type of records are we talking about here?

11 A. So these could be part of the request, but
12 mainly we are talking about inspection records. Yeah,
13 audit records, tags. Tags are specific work requests.
14 And I don't know if manuals -- no, I don't think manuals
15 would fit into this. I mean, that's a big part of what
16 we're looking at. So I think manuals would perhaps fall
17 under data requests.

18 Yeah, I think it's mostly those three. It's the
19 audit, inspection. And also if they had any incidents,
20 they would provide those to us.

21 Q. So we're talking about inspections, things like
22 the -- the yearly inspection reports for the
23 Caribou-Palermo?

24 A. That's right. Annual patrol records, their
25 inspection records for the five-year cycle, ground
26 detailed inspections, climbing records which are done as

1 they see fit and needed.

2 Q. How about the ETPM, the Electric Transmission
3 Preventative Maintenance Manual?

4 A. Yes. So that's the manual. I'm not sure which
5 category that would fall under, but that's a huge part.
6 Because I mentioned G.O. 165, Section IV, in order for us
7 to enforce that, which says basically the utility company
8 sets -- for their transmission system they set their own
9 rules. So we need to know what those rules are. And for
10 that we need to look into the Electric Transmission
11 Preventative Maintenance Manual, ETPM. So that was a
12 very big part of what we looked at.

13 Q. All right. And finally, site visits.

14 A. Site visits. We go out to observe, evidence
15 collection. And where we can take evidence ourselves I
16 think we would, but in this case we obviously were not
17 allowed to do that. But, yeah, we try to be there while
18 the evidence is being collected by the proper
19 authorities, take our own pictures. It gives us a chance
20 to ask questions about what's being taken as evidence.

21 So in this case we had -- we went out to the
22 incident location as well as downloading of information
23 from relays at several of the PG&E substations.

24 Q. Okay. And then not listed in here but another
25 resource that you had available in this investigation was
26 Exponent; correct?

1 A. That's correct.

2 Q. So you were able to work with Exponent?

3 A. Well, they basically did a study for PG&E and
4 CPUC. And their study, I believe, turned out to be very
5 helpful in understanding the things that we were looking
6 at and helping us understand why what we saw happened.

7 Q. All right. So let's start talking a little bit
8 about data requests. And you have in front of you a
9 stack of exhibits. And the first one on that stack
10 should be 714.

11 A. Okay.

12 Q. And there you go. It should have an exhibit tag
13 on it that says 714.

14 A. Okay.

15 Q. Is that 692? Oh, there's 714. Okay. There we
16 go. There's 714.

17 So I want you to take a look at 714 and tell me
18 if you recognize 714.

19 A. Yes, I do.

20 Q. What is 714?

21 A. It's information about when the Caribou line was
22 constructed and the dates.

23 Q. Okay. More basic than that, is this a -- is 714
24 the CPUC data request to C -- let me start that over
25 again.

26 Is 714 a CPUC data request made to PG&E as part

1 of the Camp Fire investigation?

2 A. Oh, well, this is PG&E's response. This is
3 PG&E's response to one of our questions in Data Request
4 Number 2.

5 Q. Okay. Well, start off basically at the top. It
6 says "CPUC Data Request SED-002."

7 A. Uh-huh.

8 Q. What does that mean?

9 A. That's our numbering system that we use for the
10 Camp Fire investigation. So this is a second data
11 request that went out to PG&E in our investigation.

12 Q. All right. And then it says "Requestor." And
13 you're going to need to help me pronounce the name.

14 A. Okay. Banu Acimis.

15 Q. Who is Banu Acimis?

16 A. So Banu Acimis is our program manager, and her
17 role in this investigation -- one of her roles in this
18 investigation was being the official person to send data
19 requests to PG&E.

20 Q. All right. And this identifies as question ten?

21 A. Uh-huh, yes, that's correct.

22 Q. All right. And so this response to Question
23 10 -- or Question 10 itself is the question that was sent
24 by the CPUC to PG&E; is that correct?

25 A. That's correct.

26 Q. And then the response to Question 10 is PG&E's

1 response back to you with the information provided?

2 A. That's correct.

3 Q. All right. And I think we already covered this.
4 But just to make sure, what does the SED stand for?

5 A. It stands for Safety and Enforcement Division.

6 Q. All right. So let's go through this real quick.
7 "PG&E has consulted the following records, among others,
8 in preparing this response: A PG&E report entitled
9 'National Register of Historic Places Inventory and
10 Evaluation of Eleven Transmission Lines Associated with
11 the Historical Alignment of the Caribou-Valona
12 Transmission Corridor. This report, which was last
13 updated in 2018, is produced at Bates number
14 PG&E-Camp-CPUC-0000031384. PG&E has also relied on a
15 Great Western Power detailed report regarding the
16 development of the Great Western Power System,"
17 blah-blah-blah.

18 It goes down and then it eventually says "PG&E
19 further understands from its records that that section of
20 the line was designed, excavated, and cleared between
21 1919 and 1921 and that the various original components on
22 that line including towers, insulators, and conductors,
23 were manufactured during that time period or earlier"
24 referring to 27/222. Is that correct?

25 A. That's correct.

26 Q. So PG&E is telling you that section of line that

1 includes the Caribou 27/222 was built between 1919 and
2 1921; correct?

3 A. That's correct.

4 Q. Let's see. And it also goes on to say that
5 another portion of that same line that started off as the
6 Great Western Power line number one was constructed
7 beginning in 1906 and went into service in 1908; is that
8 correct?

9 A. That's correct.

10 Q. All right. Oh, that's right. It also states
11 that the portion of the line that includes 27/222 was
12 brought into service in 1921.

13 A. Yes, that's correct.

14 Q. So that is the information that PG&E provided
15 you guys?

16 A. Yes.

17 Q. All right. Let's move on to 715. Or actually
18 that is 704. We've already talked about it.

19 Do you recognize 704?

20 A. 704?

21 Q. That's up on the bench. There's a copy of it up
22 here on the board.

23 Do you recognize 704?

24 A. Yes.

25 Q. Is this another PG&E response to a data request?
26 A CPUC data request?

1 A. Yes, it is.

2 Q. All right. And next up is 692 which is in your
3 stack right there. Oh, 714 and 692 got out of order.

4 GRAND JURY SECRETARY: The very bottom.

5 THE WITNESS: Oh, yeah, there we go. The last
6 one. Okay.

7 BY MR. NOEL:

8 Q. Do you recognize 692?

9 A. Yes.

10 Q. And what is 692?

11 A. It's asking for the manufacturer and the age of
12 the different components on the incident tower 27/222.

13 Q. All right. So this is a CPUC data request to
14 PG&E?

15 A. Yes, it is.

16 Q. And asking for manufacturer and component
17 number, a catalog number for the components on 27/222?

18 A. Yes.

19 Q. And this includes PG&E's response?

20 A. Yes.

21 Q. All right. And PG&E in terms of -- well, I'll
22 move on for right now.

23 All right. Next up we have number 700. Do you
24 see 700?

25 A. Yes.

26 Q. Do you recognize 700?

1 A. Yes.

2 Q. Is 700 another PG&E response to a CPUC data
3 request from the Camp Fire investigation?

4 A. That's correct.

5 Q. Why don't you read -- this one is relatively
6 brief. So why don't you go ahead and read that to us.

7 A. Okay. The question was "When was the subject
8 conductors installed?"

9 "PG&E's present understanding based upon its
10 records is that the conductor at the Incident Location 1
11 and the associated equipment were initially installed
12 between 1919 and 1921. PG&E understands towers on the
13 Caribou-Palermo 115 kV transmission line first went into
14 service on May 6th of 1921. Portions of this line have
15 been replaced over time as a result of routine
16 maintenance and emergency work. PG&E is not presently
17 aware of any records showing if or when the conductor
18 between Towers 27/221 and 27/222 was replaced."

19 Q. And we don't need to worry about incident two.

20 A. Yeah.

21 Q. Why is it important to -- or why does CPUC want
22 to know the age of the conductor between 221 and 222 on
23 the Caribou-Palermo line?

24 A. Well, we would want to know how long it's been
25 in service. Because depending on the age, that may
26 contribute to affecting parts that are connected to it.

1 Q. All right. So let's move on to 701.

2 A. Okay.

3 Q. Do you recognize 701?

4 A. Yes.

5 Q. And what is 701?

6 A. 701 is also a CPUC data request. It was our
7 first data request, question number 36, and it's PG&E's
8 response to that.

9 Q. All right. Go ahead and read the question and
10 the response.

11 A. Sure. "What type of conductor(s) was installed
12 for each incident location prior to the incident?"

13 "The table below identifies conductor types
14 installed for the incident locations, as defined by the
15 SED's data request IV prior to the incident."

16 Okay. For Location 1 452.3 kcmil Aluminum
17 Conductor Steel Reinforced. Number 2 -- Location
18 Number 2 is number two AWG Aluminum Conductor Steel
19 Reinforced."

20 Q. I want to clarify something you said and what
21 they said. "As defined by SED's data request IV prior to
22 the incident."

23 A. Yeah. I just got confused myself. What
24 happened was when we initially composed and sent our data
25 request number one and two, I believe after that time we
26 discussed with PG&E and we decided it would be very

1 helpful if we could identify -- actually define
2 Locations 1 and 2. I think that's what PG&E did with Cal
3 Fire initially.

4 Q. Okay.

5 A. But we had not done that. So I believe that is
6 what it's talking about.

7 Q. All right. So when it says "prior to the
8 incident," they're talking about the incident location,
9 not the data request prior to the incident?

10 A. Right. It's a location, right. It's referring
11 to locations.

12 Q. Okay. All right. Why is it important to
13 CPUC what type of conductor was on the transmission line?

14 A. Well, one of the things we would want to know,
15 if we needed the information, is whether the amp capacity
16 was sufficient, whether the conductor had sufficient
17 capacity to handle the current. Because we know it
18 spiked up right before it -- right before the incident.
19 So that would be -- at least from, you know, myself as an
20 investigator, that's one of the things I would want to
21 know.

22 But also sometimes we gather at least basic
23 information that may not be useful at the moment, but we
24 may need later on. So those are two reasons.

25 Q. Okay. Let's move on to 715. Do you have 715
26 there in front of you?

1 A. Got it, yes.

2 Q. And do you recognize 715?

3 A. Yes, I do.

4 Q. What is 715?

5 A. 715 is also CPUC data request number seven,
6 question number one, and PG&E's response to it.

7 Q. And this one you're asking about the length of
8 the conductor broken down by type of conductor?

9 A. That's correct.

10 Q. Why would that be important?

11 A. It's similar to the one we just looked at. Just
12 I think having basic information about the system itself.
13 Maybe at the moment we may not see a need for it, but we
14 may need it later on.

15 Q. Okay. All right. 716. Do you recognize 716?

16 A. Yes, I do.

17 Q. What is 716?

18 A. So 716 -- this was actually PG&E's response. It
19 was an attachment to, I believe, data request SED-1,
20 question 39. And in there -- in that question we had
21 asked for the distance between the two towers we've been
22 talking about; 27/222 and 27/221. And I believe we also
23 asked about the drop. You know, the sag. And this is
24 hard to read. But, yeah, it says "Provide the distance
25 between the two towers." I think it says 840 something.
26 Yeah. So this is 222, this is 221, and this is the

1 distance in between.

2 Q. Okay.

3 A. Yeah. We asked for this because at the time
4 that we went out to the site, we didn't notice any issue
5 with sag. But we wanted to make sure -- we wanted to
6 make sure there was no issue with sag.

7 But PG&E actually did not have the information
8 of the lowest sagging point at the time of the incident.
9 So what they provided us is this information that they
10 gathered in November of 2017.

11 Q. So this appears to be kind of like a not quite
12 topographical map but based upon the topographical
13 features under the line at this point; correct?

14 A. That's correct.

15 Q. All right. So the highest point is 27/222?

16 A. That's correct.

17 Q. And am I correct in reading that should be
18 reading from left to right from supply side Caribou
19 Powerhouse on the left going towards Big Bend which would
20 be off to the right?

21 A. That is correct.

22 Q. All right.

23 A. And just one other thing that we looked at was
24 since this information does provide elevation also, we
25 did check that and it falls under 3,000 feet which would
26 have been the requirement for high load.

1 Q. Okay.

2 A. So since it was provided, we looked at it.

3 Q. So, yeah, there's a line here. It looks like it
4 says 2,080 feet.

5 A. Yeah. So I think 27/222 is sitting at about
6 2150 or so. And I guess the top of the tower would be
7 almost 2200.

8 Q. Okay. All right. Thank you.

9 All right. Let's move on. And I want to show
10 you quickly this is Exhibit Number 159.

11 MR. NOEL: Did we have that pulled?

12 GRAND JURY SECRETARY: Yeah.

13 THE WITNESS: I got it.

14 BY MR. NOEL:

15 Q. And so do you recognize 159?

16 A. Yes, I do.

17 Q. What is 159?

18 A. 159 is a line corrective. It's basically, yeah,
19 a work submission form for tower 27/222. And the work
20 that was supposed to be done on this was the replacement
21 of the connectors.

22 Q. All right. Why is this specific document
23 Exhibit 159 important to you?

24 A. It's important to us because this particular
25 work that was initially written up in 2009, it was -- the
26 property was assessed twice and then the condition was

1 reassessed a couple times. And so it ended up pushing
2 the due date for correction to -- I forget the exact --
3 oh, it says "required end date November 30th of 2015."

4 For us this was important because they didn't
5 meet that deadline. It was actually corrected the
6 following year. And the problem that we found with this
7 is, according to PG&E's procedure, if they don't meet the
8 deadline, they have to provide a written explanation for
9 it. But they did not have it.

10 Q. So did you do at data request based upon Exhibit
11 Number 159?

12 A. Yes, we did.

13 Q. All right. First off, did you do any
14 investigation into why these connectors had to be
15 replaced?

16 A. Initially, we did not. And I don't have a
17 timeline very clear, but it is something that was brought
18 to our attention and it is something that we did look at.
19 But I'm not sure if that came before -- I think it
20 probably came after the date of the request.

21 Q. Okay. So let's look at Exhibit 717. You should
22 have it in front of you there.

23 A. Yep.

24 Q. Do you recognize 717?

25 A. Yes, I do.

26 Q. What is 717?

1 A. 717 is CPUC's -- or I should say SED. That's
2 not correct. SED's data request number six, question
3 number two, and PG&E's response to that.

4 Q. And what is it that you were asking for -- SED
5 was asking for in this data request?

6 A. So SED in one of these special reports that we
7 looked at, it mentioned a pre-existing condition on Tower
8 27/222. We asked PG&E to clarify what that meant, and
9 PG&E's response was that the pre-existing condition
10 refers to the replacement of the connectors. And I
11 believe it should be connectors multiple. It's my
12 understanding that it wasn't one connector that was to be
13 replaced but multiple.

14 Q. All right. So let's walk through this response.
15 Now, for one thing, PG&E always responds. "PG&E
16 understands 'pre-existing conditions' as referring to the
17 condition on Tower 27/222 on the Caribou-Palermo line."

18 Is that kind of a standard format?

19 A. That has been their standard format of response
20 for Camp Fire data requests.

21 Q. Okay. So they respond "PG&E understands
22 'pre-existing conditions' as referring to the condition
23 on Tower 27/222 on the Caribou-Palermo 115 kV
24 transmission line identified during PG&E's detailed
25 inspection of the line in August 2009. PG&E previously
26 produced records of the August 2009 detailed inspection

1 in connection with its supplemental response to the SED's
2 Data Request 001."

3 And it gives more. "The pre-existing condition
4 is described in the corresponding work order, line
5 corrective notification 103995542," which is the number
6 on the exhibit; correct? 192?

7 A. Yes, it is.

8 Q. Or 159.

9 A. Yes.

10 Q. "Describes the pre-existing condition as
11 follows: Per buck on inspection need to replace 3 bolt
12 connector with wedge."

13 And then it says "According to PG&E's system of
14 work orders, systems applications, and production SAP, LC
15 Notification 103995542 originally was assigned Priority
16 Code G, a priority code that PG&E no longer uses. In
17 accordance with the April 2009 Electric Transmission
18 Preventative Maintenance Manual that was in effect at the
19 time of the August 2009 detailed inspection, corrective
20 action is required within 12 months from the date the
21 condition is identified for Priority Code G conditions."

22 So initially this was qualified as a Priority
23 Code G and was supposed to be repaired within one year?

24 A. That's correct.

25 Q. All right. "The condition identified was
26 changed to a Priority Code B condition on October 4th,

1 2009, before being changed to a Priority Code F condition
2 on October 27th, 2009. The ETPM Manual that came into
3 effect in January of 2011 was updated to reflect PG&E's
4 adoption of Priority Codes A, B, E, and F. For Priority
5 Code B conditions corrective action is required within
6 three months from the date the condition is identified.
7 For Priority Code F conditions corrective action is
8 required within 24 months except for nominations and
9 notifications of system-wide initiatives identified by
10 Asset Strategy which can have due dates beyond
11 24 months."

12 That's a mouthful.

13 So this started off as a G notification that
14 needed to be done within one year?

15 A. That's correct.

16 Q. And then according to PG&E it became a B
17 notification that had to be done within three months?

18 A. Yep.

19 Q. And then it was changed again to a F which
20 should have been done within two years?

21 A. That's correct.

22 Q. And were you ever able or was PG&E ever able to
23 provide you with any written justifications for why any
24 of those changes were made?

25 A. PG&E could not provide the written justification
26 for any of those.

1 Q. All right. And then going on to the next
2 paragraph. "On the latter occasion the required
3 completion date for connector replacement work was
4 scheduled for November 30th, 2015."

5 Were you ever given any reason from PG&E as to
6 why this didn't -- wasn't even scheduled to be done until
7 2015 and then ultimately didn't get done until 2016?

8 A. No. PG&E could not provide any written
9 justification for those.

10 I don't know if you were going to touch on this,
11 but I think our data request number seven, question
12 number five.

13 Q. That's the next one.

14 A. Okay.

15 Q. 718. We have Exhibit Number 718 in front of
16 you. Let's see if you recognize 718.

17 A. I sure do.

18 Q. What is 718?

19 A. 718 is our data request number seven, question
20 number 5 asking PG&E for explanation as to why the
21 priorities were changed twice and why the condition was
22 reassessed and postponed twice. And they were not able
23 to provide any documentation on any of those.

24 Q. All right. So the response is basically their
25 explanation of why this notification didn't get taken
26 care of; correct?

1 A. That's correct.

2 Q. And it starts off "PG&E's Systems, Applications,
3 and Products SAP system indicates that Line Corrective
4 Notifications 103995542 was changed on October 4, 2009,
5 by an individual with the LAN ID 'S4SJ.' LAN IDs are
6 unique identifiers for PG&E employees and contractors.
7 PG&E understands that LAN ID to have belonged to
8 Siddharth Singh --"

9 That is S-i-d-d-h-a-r-t-h, S-i-n-g-h.

10 "-- a former PG&E contractor who worked with
11 PG&E's SAP Operations group from January 15, 2007, to
12 March 21, 2010. At this time PG&E has not identified any
13 additional documentation to support why the priority code
14 was changed."

15 And then it goes on to say on October 27th the
16 same guy Siddharth Singh again changed the priority code.
17 Is that correct? Is that a correct summary?

18 A. That is correct.

19 Q. And it doesn't provide any explanation for why
20 that was done; is that correct?

21 A. That's correct.

22 Q. And then it goes on and it talks about that
23 actually on those two dates Siddharth Singh not only
24 changed the correction code for 27/222, but he changed it
25 for 85 notifications on the Caribou-Palermo line for
26 change connectors and then again on October 27th he

1 changed all 85; correct?

2 A. That's correct.

3 Q. But it was saying a former contractor got in and
4 did this for some other reason. There was no other
5 justification given for why this work was not done and
6 why these priorities code were changed?

7 A. That is correct.

8 Q. All right. Let's move on to 719. Do you have
9 719 in front of you?

10 A. Yes, I've got it.

11 Q. What is 719?

12 A. 719 is data request number eight, question
13 number 1 regarding what prompted the climbing inspections
14 on the Caribou-Palermo line just before the Camp Fire and
15 PG&E's response to it.

16 Q. What climbing inspections?

17 A. These are detailed climbing inspections on the
18 towers.

19 Q. How did you find out -- or what makes you think
20 that PG&E was doing detailed climbing inspections on
21 towers on the Caribou-Palermo?

22 A. Well, we had some prior data requests from which
23 we had seen the detailed climbing inspection forms that
24 were filled out. So we knew they had done some.

25 Q. Okay. So you asked them basically why?

26 A. That's correct.

1 Q. And what did they respond?

2 A. Well, they said this was -- so this is in their
3 response at the end of the first paragraph. They say it
4 was for their asset management strategy.

5 Q. Okay. They explained how that fits into their
6 asset management strategy?

7 A. I don't believe they did.

8 Q. Did PG&E mention any triggers that may have
9 caused them to do climbing inspections?

10 A. Well, that's what we were interested in because
11 for PG&E to do detailed climbing inspections on the
12 towers it has to be triggered by something.

13 Q. Right.

14 A. And we were looking for that trigger. And the
15 answer that we got was it was a -- it was for asset
16 management strategy. So it didn't sound like there was
17 any specific condition that would be of concern to prompt
18 these inspections.

19 Q. Okay. Were you aware of any possible triggers?

20 A. You mean for --

21 Q. Prior to the climbing inspections in the fall of
22 2018.

23 A. You mean, like as I look back on all this?

24 Q. Well, at the time were you aware that there were
25 any possible triggers or anything that could be
26 considered a trigger?

1 A. Well, we mentioned this in our report. But if
2 the -- I think just looking at the incident tower and,
3 you know, later we got to see a couple other towers. But
4 it was one thing that was very obvious on some of these
5 towers was the original hardware insulators were hanging.
6 They were not being used anymore. They had a
7 replacement.

8 And so the original hanger with the hole was
9 still there, and you could see they wore out. So in our
10 minds if they had to stop using that and use another
11 hanger, that would warrant a known condition that should
12 trigger some sort of follow-up climbing inspection.

13 Q. So as part of your investigation you said it was
14 very important to go through PG&E's inspection and
15 maintenance policies; correct?

16 A. Correct.

17 Q. And you had to learn those. And you just quoted
18 from them, I think, that climbing inspections are as
19 triggered.

20 A. That's correct.

21 Q. And PG&E's policies define what types of things
22 would trigger climbing inspections; correct?

23 A. Correct.

24 Q. So we know from the historical documents that
25 this line went into service in 1921; correct?

26 A. Correct.

1 Q. We know from the historical documents that were
2 provided by PG&E that the components -- the conductor,
3 the insulators, the C-hook -- very well may be original
4 from 1921?

5 A. They may be.

6 Q. And there is probably a really good chance that
7 those are original?

8 A. Yeah. I couldn't say, but I wouldn't be
9 surprised.

10 Q. And in their response to that request from the
11 CPUC, PG&E has stated that they have no records showing
12 that any of those components have ever been changed on
13 27/222?

14 A. Could you repeat the question.

15 Q. According to the data request, the responses to
16 data requests, isn't it true that PG&E has stated that
17 they have no records showing that any of the components
18 on 27/222 have ever been repaired or replaced? And by
19 components I'm limiting it to the conductor, the
20 insulators, the C-hooks.

21 A. I'm not sure that we asked the specific question
22 like that for 27/222.

23 Q. Okay. So we'll go back and look at those. But
24 in terms of triggers, like if they had a failure or a
25 potential failure of hanger plates on another line, would
26 that be considered in your understanding of PG&E policy

1 to be a trigger?

2 A. Yes, it would.

3 Q. So, for instance, if the PG&E lab did an
4 analysis of a hanger plate from a different line that
5 found that hanger plates due to fretting were wearing at
6 approximately .007 inches per year and that the lifespan
7 of a hanger plate is between 94 and 98 years, would that
8 in your understanding of the Transmission Manual be
9 considered a trigger?

10 A. Yes, it would.

11 Q. How about failure of components? Would those be
12 considered triggers?

13 A. Definitely.

14 Q. How about a failure of a component that starts a
15 fire?

16 A. Oh, definitely.

17 Q. Okay. And was the Caribou-Palermo the only line
18 in the Feather River Canyon that had climbing inspections
19 going on in the fall of 2018?

20 A. That I don't know for sure, but I know they
21 inspected -- we were told that they were inspecting other
22 transmission lines as well. I'm not sure if that would
23 have included other lines in that area.

24 Q. Were you aware that PG&E notified you during
25 your investigation that -- earlier in the fall of 2018
26 that the Murphy Fire was caused by the failure of a PG&E

1 jumper in the Feather River Canyon?

2 A. I was not aware of that.

3 Q. PG&E didn't report that?

4 A. Not to my knowledge.

5 Q. Is there a requirement, to your knowledge, that
6 PG&E report fires caused by its equipment to the CPUC?

7 A. If it meets the incident reporting requirement,
8 which I would imagine if it causes a fire, it would be
9 pretty easy to meet that, then they would be required to
10 report to us.

11 Q. All right. Let's move on to 720. Do you
12 recognize 720?

13 A. Yes, I do.

14 Q. And what is 720?

15 A. 720 is our data request number two, question
16 number 29 asking PG&E whether it has ever conducted
17 testing on the tower or the components.

18 Q. And why would that be important to you?

19 A. Well, testing is important just to ensure the
20 equipment and the components have retained their
21 integrity and provide some assurance that it will provide
22 safe and reliable service.

23 Q. Okay. So can you read for us PG&E's response.

24 A. Sure. "PG&E submitted its initial response to
25 this question on April 2, 2019. In this supplemental
26 response PG&E is producing general maintenance GM work

1 orders from 1930s and '40s that called for Megger testing
2 on what is now part of the Caribou-Palermo 115 kV
3 transmission line and was referred to at the time as the
4 Big Bend Oakland line or Great Western Power Line Number
5 One, a portion of which now comprises a part of the
6 Caribou-Palermo 115 kV transmission line."

7 I won't read through the rest of it.

8 "PG&E is also producing at PGE-CAMP-CPUC-88000 a
9 document dated July 28, 1986, related to the electrical
10 resistance testing of conductor and what was then known
11 as the Caribou Sycamore Line, a portion of which now
12 comprises part of the Caribou-Palermo 115 kV transmission
13 line."

14 Q. All right. So your question to PG&E is: Have
15 you ever done any material stress testing on the
16 Caribou-Palermo towers." Correct?

17 A. That's correct.

18 Q. And their response is "Back in the '30s and '40
19 we did some Megger testing and in 1996 we did some
20 electrical resistance testing"?

21 A. Yes, that's what they said.

22 Q. So a 100-year-old line, as far as what PG&E has
23 reported to, they've never done any material stress
24 testing or load testing?

25 A. That's correct. And they didn't really address
26 the section that we were interested in. I believe that

1 the section of Caribou-Palermo was -- when it was under
2 Great Western Power, I believe from one of the earlier
3 documents that it's actually line number three. This one
4 is line number one.

5 Q. Awe.

6 A. So I don't know if they -- if the earlier tests
7 actually covered the section they were interested in.

8 Q. Wow.

9 A. At least in this document here.

10 Q. Okay. All right. So let's move on to 721. Do
11 you recognize 721?

12 A. Yes, I do.

13 Q. What is 721?

14 A. 721 is our data request number two, question 30
15 which asks about whether PG&E has done any remaining life
16 analysis on any of the PG&E -- any of the Caribou-Palermo
17 towers. And this is PG&E's response to that question.

18 Q. What is remaining life analysis?

19 A. So when systems get old, you know, you have to
20 decide whether you need to retire that or whether you're
21 going to maintain it. So this remaining life analysis
22 would kind of help the company determine which direction
23 they're going to take.

24 Q. Okay. So if you took, for instance, a hanger
25 bracket off a tower -- the hanger bracket that had become
26 elongated -- and did some engineering studies on it to

1 determine how long it's taken to wear to the point it's
2 at and based upon that how long it would take to where
3 its safety factor was below 1.33, would that be
4 considered remaining life analysis?

5 A. You know, I think it's probably more than that.
6 That might be a component of this study, but I think they
7 would probably -- to be perfectly honest, I have actually
8 not seen an actual remaining analysis report. But I
9 think they would have to consider many other components
10 along that line.

11 Q. Okay. And the short answer is, no, they have
12 not done so?

13 A. That is correct that is a short answer.

14 Q. And then in that answer they also mentioned the
15 Quanta Technology studies in 2010?

16 A. Uh-huh.

17 Q. You have to answer out loud so that she --

18 A. Yes.

19 Q. And then the 2017 DSTSRMS studies; correct?

20 A. That's correct.

21 Q. And it also talks about "In addition to the
22 studies described above, PG&E tests equipment that has
23 failed in order to determine the cause of the failure."

24 A. That's correct.

25 Q. All right. All right. Let's go to 703.

26 A. Okay.

1 Q. What is 703?

2 A. 703 is SED data request number seven, question
3 number 12 in which we asked when the reinforcement hanger
4 brackets were added to the original system. And it's
5 PG&E's response to that question. And the short answer
6 is they don't know.

7 Q. Perfect. Thank you.

8 All right. Let's go to 722. What is 722?

9 A. 722 is our data request number seven, question
10 number 2. We're asking PG&E basically how much load the
11 two C-hooks on the jumper cable insulators were carrying.

12 Q. Why would that be important?

13 A. Well, that comes back -- that brings us back to
14 safety factor. If we wanted to really pursue this
15 because safety factor has to do with how much load a
16 component is carrying and how much strength is left in
17 that component. So this at least gives us an idea of how
18 much load each of the two C-hooks were carrying.

19 Q. All right. So ultimately without going through
20 this line by line, what load were the C-hooks supposed to
21 be carrying?

22 A. Each one was carrying, I believe, 140 something.
23 Let me see. Okay. So the last row of the table on
24 page 2 142.8 pounds per hook. That's the estimation.

25 Q. All right. Okay. So we have pretty much talked
26 about this, the records that you reviewed, and the

1 inspection of patrol records both routine and
2 non-routine; correct?

3 A. Correct.

4 Q. All the tags or LC notifications on the line?

5 A. Correct.

6 Q. The Electric Transmission Preventative
7 Maintenance Manual?

8 A. Yes.

9 Q. The WSIP results from the Exponent report?

10 A. We didn't really talk about WSIP. But, yeah,
11 Exponent mentioned it, yeah.

12 Q. And then the 2018 climbing inspection records?

13 A. That's correct.

14 Q. All right. Now, let's look at some pictures.
15 Do you recognize 723?

16 A. Yes, I do.

17 Q. What is 723?

18 A. So 723 is -- that is tower 27/222, the one
19 that's adjacent to the incident tower. And what we're
20 looking at is a disconnected hold-down. So that cable
21 that's hanging over, that should be tied to the bottom of
22 that insulator. But when we went out to the -- the first
23 day we went out for evidence collection, that's the first
24 thing we saw.

25 Q. All right. Next 724.

26 A. 724 is Tower 27/222. And that is exactly what

1 we saw when we walked up to the -- near the base of the
2 tower.

3 Do you want me to explain what the picture is?

4 Q. No. I think that they understand that by now.

5 A. Okay.

6 Q. 725.

7 A. So 725 is a picture of the incident hook before
8 they disassembled it from the insulator string. And I
9 think as soon as they brought it down, one of the PG&E
10 linemen just held it for people to take a look and take
11 pictures.

12 Q. 726.

13 A. Okay. So that's taken from one of PG&E's
14 linemen who climbed the tower. And that -- again, we're
15 all talking about Tower 27/222. So before they -- so
16 that's the jumper cable that fell when the -- that fell
17 when the incident clamp C-hook broke and it was just
18 dangling there. And what we're seeing here are marks
19 that were left by arcing. So the burn marks indicate
20 basically arcing. And you can see some metal loss there
21 from the wire.

22 Q. All right. 727.

23 A. 727. So this -- this is the left runner arm.
24 So I mentioned earlier that the jumper cable has
25 transposition jumper cable. It has two insulator hooks
26 tied to it. So this is where the left hook was hanging

1 from.

2 So what we see -- the portions -- so this is
3 actually -- the one that's labeled "left runner," that's
4 the original arm on which the insulator was hanging. And
5 what we see in front of that, the bracket, that's what
6 was added when PG&E stopped using that initial runner arm
7 to hang the insulator.

8 Q. So this is what you were talking about back in
9 SED 007, Question 12 when you specifically asked PG&E
10 when that bracket was added?

11 A. That's correct.

12 Q. And the response was that PG&E doesn't know?

13 A. That's correct.

14 Q. 728.

15 A. That's the right runner before it was taken
16 down. But since they removed the insulator, you can see
17 the holes where they used to hang from. And you can see
18 they're elongated from wear.

19 Q. Finally, 729.

20 A. Well, this was evidence removed on March 29th
21 from Tower 27/199, the right phase hook so . . .

22 Q. Why -- what's significant in this photograph?

23 A. Well, the amount of wear. Actually, if I could
24 point something out.

25 Q. Absolutely.

26 A. When I wrote the report and people read it, they

1 didn't notice this. I guess I just assumed it's obvious,
2 but they thought that was the actual design of the hook.
3 But that part that's missing, that's what wore out. But
4 that -- yeah, if you're looking at it for the first time,
5 it almost looks like it was designed that way because,
6 you know, it's very straight, smooth.

7 Q. All right. Now, we talked about your report.
8 Let's talk about your conclusions.

9 A. Sure.

10 Q. We have the conclusions up here. I'd like you
11 to go through them one at a time and explain them to us.

12 A. Okay.

13 Q. And you have a copy of your report?

14 A. I do have my report, yeah.

15 Okay. "PG&E failed to replace or reinforce the
16 C-hook on the incident tower before its safety factor was
17 reduced to less than two-thirds of the safety factor
18 specified in Rule 44.1, a violation of G.O. 95,
19 Rule 43.3."

20 So again 44.3 says at the time it's installed --
21 excuse me. 44.1 explains when it's installed, it should
22 have a safety factor of two. 44.3 says the minimum that
23 you have to maintain is 1.33. So when it failed,
24 obviously it fell below one. So it was a clear
25 violation, a clear indication that at some point -- at
26 some point probably -- we don't know when but at some

1 point it went below 1.33.

2 Q. So going back to 729, the hook off of
3 Tower 24/199, this hook was still hanging when it was
4 removed from the tower; correct?

5 A. That's correct.

6 Q. So this hook at least had a safety factor of
7 over one at that time?

8 A. That's correct.

9 Q. But the safety hook that failed on 27/222 was
10 worn even more so than this is your opinion?

11 A. Yes. The hook that failed -- I think earlier we
12 saw a picture that showed the cross section of the
13 remainder of the hook that was recovered. You can see
14 that most of it, maybe like 75, 80 percent of it is
15 pretty smooth. And then there's a little part that
16 sticks out. Well, so this smooth part has been grinding
17 away for who knows how long. And then the part that
18 sticks out, that's a point at which the safety factor
19 reached one and probably a little less than one and it
20 just tore off.

21 So I think we can look at that point up to where
22 it was smooth and say, "Yeah, up to that point it somehow
23 maintained a safety factor of one or slightly above."

24 Q. So based upon G.O. 95, Rule 44.3 PG&E had a duty
25 to inspect and not allow that to happen?

26 A. That is correct. They should have known -- you

1 know, they should have had a pretty good idea of when it
2 was going to reach a safety factor of 1.33.

3 Q. All right. Next conclusion.

4 A. Okay. The next one "The failure of the C-hook
5 supporting the transposition jumper on the incident tower
6 demonstrates that PG&E did not maintain the incident
7 tower for its intended use and regard being given to the
8 conditions under which it was to be operated. Therefore,
9 it is a violation of G.O. 95, Rule 31.1."

10 So they have to consider some conditions here.
11 That is a windy area. And then the design -- I don't
12 think it could be ignored. The transposition jumper --
13 it's not very taut. You know, it doesn't have much
14 tension. So it has -- it's going to allow that insulator
15 and the hook to swing. So those are things -- so in
16 other words, it's not rigid. It's vulnerable to motion.

17 So they did not seem to have taken that into
18 consideration and kind of kept their eyes open for the
19 wear that could occur as a result of the condition and
20 the design.

21 Q. All right. So the next one.

22 A. Okay. So "PG&E failed to inspect the incident
23 tower thoroughly. Through its inspections it failed to
24 detect an immediate safety hazard or Priority A condition
25 on the incident C-hook which required replacement before
26 its safety factor fell below 1.33 prior to the Camp Fire.

1 This is a violation of G.O. 95, Rule 31.2."

2 So we were focusing on their inspections not
3 being thorough. In one of our data requests I think they
4 mentioned that when PG&E does its inspections, it notes
5 abnormalities and anything that might negatively impact
6 safety and reliability. And it's just hard to see
7 evidence of that.

8 There again in one of their responses I think
9 they were equipped with binoculars to actually look up.
10 You know, these structures are -- I don't know. I
11 imagine they're a good 50 feet tall. And so it's hard to
12 see with naked eyes what's up there, but they are
13 equipped with binoculars.

14 And when I went out to evidence collection on
15 March 28th, I personally wanted to test it out. You
16 know. Can you actually see with binoculars? And I was
17 surprised at what you could see especially if the terrain
18 allows you to kind of climb up on the hill. If the
19 towers are next to hills, you could actually kind of
20 climb up and almost be at eye level to what you want to
21 see. And I was very surprised at how much you could see.

22 But, you know, from the two C-hooks that we saw,
23 those happened over a long time. And it seems like all
24 those years that they were doing inspections, I'm not
25 sure that they used the binoculars to actually look at
26 those components.

1 So that's where we felt like they were not being
2 thorough. There's no document that we could look at and
3 say "Oh, yeah, these guys -- we know what they looked
4 at." You know, they only record if there's issues. They
5 don't tell you what they actually looked at if there was
6 no issue. So anyway.

7 Q. All right. Next "PG&E failed to follow its
8 procedures in the ETPM."

9 A. Yeah. "PG&E failed to follow its procedures in
10 the ETPM Manual by failing to document the factors and
11 reasons that led to the delay in the repair work on the
12 incident tower which was scheduled to be completed by
13 November 2015. However, it was delayed until June 2016.
14 PG&E did not document the reason for the delayed work
15 which is a violation of its own policy. Therefore, a
16 violation of G.O. 165, Section IV."

17 Yeah, we talked about this in length. This is
18 the replacement of connectors at Tower 27/222. The
19 priorities changed a couple of times. It was reassessed
20 and the completion date was pushed back a couple of
21 times. There was no documentation.

22 But finally, when they did decide upon the
23 completion date, they didn't meet it and there was no
24 documentation as to why they didn't meet that. And I
25 believe that's a violation of Section 153, I believe, in
26 their ETPM Manual.

1 Q. All right. Next up.

2 A. Okay. So number five "PG&E failed to conduct
3 detailed climbing inspections when conditions to trigger
4 climbing inspections were evident as specified in PG&E's
5 procedures. Wear on the original working eyes that
6 remained on the incident tower is an indication of a
7 known condition with potential to recur on the added
8 hanger plates with working eyes, which should have
9 triggered detailed climbing inspection to examine the
10 added hanger plates. This is a violation of G.O. 165,
11 Section IV."

12 So their manual says if certain conditions are
13 met, climbing inspections should be triggered. And what
14 we -- what we noted was among the triggers is known
15 recurring condition. And we looked at the added hanger
16 plates and all the evidence is hanging right there that
17 wear was occurring on the original hole. And if that had
18 been happening, if you move that over a couple inches to
19 a new plate, chances are the same thing will happen
20 again.

21 So that should have warranted some sort of
22 follow-up climbing inspection. But we felt that, you
23 know, anybody could have looked up and saw that, you
24 know, there's something going on there, but it seems like
25 they didn't follow up on that so . . .

26 Q. Known conditions. Would wear on another

1 transmission line on the hanger eyes or the hanger holes
2 on other transmission lines constitute a known condition
3 that could trigger climbing inspections?

4 A. If it's similar parts, similar equipment, sure.

5 Q. How about prior evidence of wear on C-hooks?

6 A. Definitely.

7 Q. Were you aware that in 1987 PG&E's lab was asked
8 to examine worn C-hooks off a transmission line in the
9 Bay Area?

10 A. I was not aware of that.

11 Q. All right. Let's go to the next one.

12 A. Move on? Okay. I think we are on the --

13 Q. Failure of the C-hook.

14 A. -- failure of the C-hook. Maybe mine is out of
15 order. Okay. 31.1. I think mine is kind of out of
16 order here. Okay. I'll just read this.

17 "The failure of the C-hooks supporting the
18 transposition jumper on the incident tower demonstrates
19 that PG&E did not maintain the incident tower for its
20 intended use and regard being given to the conditions
21 under which it was operated. Therefore, it is a
22 violation of G.O. 95, Rule 31.1."

23 Yeah, so the conditions are crucial; the wind,
24 the design, the age. But it seems like they did not --
25 that did not warrant special attention as was needed.

26 Q. You're right. I need go back to the ride slide.

1 A. Oh.

2 Q. Let's see. Where were we? We're at the second
3 condition.

4 A. Oh, yeah, here we go. Okay. The second bullet.

5 "The condition of the C-hook (material loss
6 greater than 50 percent) supporting the transposition
7 jumper on Tower 24/199 demonstrates that PG&E did not
8 maintain Tower 24/199 for its intended use. Therefore,
9 it is a violation of G.O. 95, Rule 31.1."

10 Q. And 24/191 is the photograph that we've been
11 looking at. That number is escaping me right now. I
12 have it in front of me. 729.

13 A. Yes. So similar explanation as my previous one.
14 Yeah, the conditions are very important. And it seems
15 like they did not take that into consideration. So
16 transposition towers in general, I think they tend to be
17 more vulnerable.

18 Q. And the next one goes along with that.

19 A. Okay. "PG&E failed to inspect Tower 24/199
20 thoroughly. Through its inspections it failed to detect
21 the safety hazards of a Priority A condition which
22 requires immediate response until the condition no longer
23 presents a potential hazard. Based on the ETPM Manual,
24 Table 8, the amount of wear greater than 50 percent on
25 the C-hook on Tower 24/199 warranted Priority Code A.
26 This is a violation of G.O. 95, Rule 31.2."

1 So Priority A needs to be addressed immediately,
2 but they didn't even find it so . . .

3 Q. That ties into the next one.

4 A. Yeah. "Based on PG&E EPTM Manual, Table 8, the
5 amount of material loss on the C-hook on Tower 24/199
6 warranted Priority A and immediate response until the
7 condition no longer presents a potential hazard. PG&E's
8 failure to detect and correct this Priority A condition
9 as specified in PG&E's procedures is a violation of G.O.
10 165, Section IV."

11 Yeah, it follows from the previous line. They
12 didn't see it so how could they even fix it?

13 Q. Right. And that should have been G.O. 165,
14 Section IV; correct?

15 A. That's right G.O. 165, Section IV.

16 Q. All right. And finally, let's go through the
17 last four conclusions.

18 A. Okay. "PG&E assigned an incorrect priority for
19 an immediate safety hazard represented by a disconnected
20 insulator hold-down anchor. On September 11, 2018, a
21 PG&E crew observed that an insulator hold-down anchor on
22 Tower 27/221 had come apart. PG&E assigned the condition
23 a Priority Code E. As defined in the ETPM Manual, the
24 Priority E designation is for conditions which must
25 receive corrective action within 12 months. However,
26 several broken insulator hold-down anchors found during

1 enhanced inspections after the Camp Fire were assigned
2 Priority A. Incorrect prioritization is a violation of
3 G.O. 95, Rule 18."

4 Yeah. So it was -- the first photo we saw on
5 tower 27/221 the hold-down anchor was disconnected. But
6 when PG&E after the Camp Fire started conducting enhanced
7 inspections in March, PG&E sent us the first set of
8 results from the inspections. And in their -- I believe
9 we found at least two and I want to say three situations
10 in which they -- the hold-down anchor had been
11 disconnected. And they called those Priority A.

12 So we thought okay. If those are Priority A,
13 this is really the same situation. Maybe how it happened
14 might have been different. We were told that at the
15 incident location that it had been unscrewed. Okay.
16 Maybe that is true, but the result is the same. So we
17 thought it should have been Priority A as -- as they
18 indicated in their enhanced inspections.

19 Q. All right. And the next one.

20 A. Okay. "PG&E failed to follow its procedure by
21 using an outdated inspection form during the detailed
22 climbing inspections that PG&E conducted from
23 September 19th to November 5, 2018. It used TD-1001M-FXX
24 that was implemented in March of 2016 even though the
25 form, effective as of September 2018, was TD-1001M-404.
26 Since PG&E did not follow its own procedure, it is in

1 violation of G.O. 165, Section IV."

2 So prior to these climbing inspections that took
3 place starting from September 19th of 2018, prior to that
4 PG&E had updated its inspection form which actually had
5 some significant changes from its prior version. And
6 what's of interest to us is the list of hardware that got
7 included that were not on the previous form; hardware for
8 insulators. But PG&E used the old form during those
9 inspections.

10 And when we asked about it, they said there's a
11 grace period to switch over. But we didn't get any
12 formal response as to exactly how long that grace period
13 is. We heard it was three months. It was just a verbal
14 response. But until their last inspection in early
15 November, they used the old form. And the new form, from
16 our understanding, is they were technically effective
17 beginning of September 2018.

18 Q. All right. And the next conclusion dealing with
19 the Camp B.

20 A. Okay. "PG&E failed to report the reportable
21 incident on Big Bend 1101 12kV distribution circuit in a
22 timely manner. After learning of a possible second
23 origin of fire through a CAL FIRE press conference on
24 November 15th, 2018, approximately 1800 hours, PG&E
25 submitted an electric incident report to the CPUC on
26 November 16, 2018, at approximately 1600 hours, which was

1 22 hours later. This is a violation of Appendix B of
2 D.06-04-055 as amended by Resolution E-4184, which
3 requires reporting within four hours outside of normal
4 working hours."

5 Yeah, see, initially PG&E was not unaware of the
6 second location being the cause of fire. And after they
7 learned of it, they should have reported to us within
8 four hours of the press release, but it was much later
9 than that.

10 Q. And finally.

11 A. Okay. This is kind of a catchall. "PG&E failed
12 to maintain an effective inspection and maintenance
13 program to identify and correct hazardous conditions on
14 its transmission lines. This is a violation of PU Code
15 Section 451. SED determined that PG&E's transmission
16 inspection and maintenance program prior to the Camp Fire
17 was inadequate to ensure that the Caribou-Palermo
18 transmission line, in particular transmission lines in
19 the North Fork Feather River Canyon, or PG&E's
20 transmission lines in general were in good condition to
21 furnish and maintain service as is necessary to promote
22 the safety and health of its patrons and the public."

23 Yeah, so basically this one requires PG&E to
24 make sure they provide a safe, reliable electrical system
25 for its customers. And they need the programs in place
26 to accomplish that. But as we look at their entire

1 inspection and maintenance program, you know, the
2 different components of it, the patrols, the detailed
3 inspections, the climbing inspections, their repair
4 records, put all of that together and they did not
5 accomplish this in our view.

6 Q. So in summary is it safe to conclude that the
7 CPUC and the General Orders don't really ask a whole lot
8 of -- require a whole lot of PG&E when it comes to the
9 inspection and maintenance of transmission lines?

10 A. We don't ask a whole lot of them.

11 Q. Right. Ultimately, it simply says "You need to
12 have a policy. We don't care what the policy is, but you
13 need to have a policy and you need follow your policy"?

14 A. Well, it needs to be a policy that insures that
15 they maintain safe and reliable systems. So we lay out
16 what they need to accomplish. How they get there that's
17 up to them. But if they don't get there, then we need to
18 look at their program and figure out why they're not able
19 to achieve that.

20 Q. And it sounds like based upon your conclusions,
21 through your investigation as it was, they can't even
22 follow their own policy?

23 A. There is that, yes. That's a big part of it.
24 If they had actually done what they said they would,
25 maybe it would have been different. Yeah. And maybe the
26 policy itself is lacking something too, but it's a little

1 hard to determine. But definitely you put it all
2 together the end result doesn't accomplish what they are
3 required to do.

4 MR. NOEL: All right. That is all I have.

5 Any members of the jury have any questions?

6 All right. The members of the jury can ask
7 questions. They write them down, submit them to us. We
8 make sure that they're appropriate and admissible.

9 THE WITNESS: Okay.

10 MR. NOEL: And once we do that, we'll give you
11 the questions.

12 [Conferring off the record.]

13 MR. Noel: All right. We have reviewed these
14 questions with the foreperson and they appear
15 appropriate.

16 BY MR. NOEL:

17 Q. So has the CPUC ever considered or recommended
18 that utilities operators consider or weigh in their
19 consideration of component reliability the actual age of
20 the components involved in construction and operation of
21 transmission or distribution lines?

22 A. Have we ever considered? I mean, that -- I
23 don't think I could answer that. It's kind of a
24 historical question. I'm not aware of that.

25 Q. Okay.

26 A. And maybe some of our senior members of the

1 group or the management might be able to answer to that.

2 Q. Okay. As regards PG&E's explanation for the
3 work order to replace the conductor on Caribou-Palermo
4 line at 27/222, do you have any reason to believe that
5 the work as ordered and repeatedly delayed was actually
6 done as described in 718?

7 A. Do I believe that it was actually completed?

8 Q. Yes.

9 A. I don't have reason to not believe it. You
10 know, the fact that they were late and they wrote that
11 down, I do think they actually completed it. But it's
12 not our -- it's not our usual practice to actually
13 verify -- yeah, verify particular corrections.

14 During our audits that's part of what we do.
15 Part of what we do is to verify -- you know, sample
16 verify corrections. But, yeah, in this particular case
17 we didn't verify, but I don't have a reason to not
18 believe that the work was done.

19 Q. All right. Now, as to Exhibit 725, which is the
20 broken C-hook, does it appear to you that there is only
21 about ten percent of the thickness of the hook metal is
22 actually broken while the remaining metal appears to be
23 the result of the rubbing?

24 A. That is exactly -- yeah, that is exactly true.
25 That's how I see it. That's how we see it. Yeah,
26 whether the part that was broken was ten percent, I mean,

1 it's a little hard to say whatever that percentage is,
2 but it's a small percentage that was left before it
3 actually snapped.

4 Q. Does the CPUC have any knowledge as to whether
5 or not PG&E briefs its upper corporate officers as to
6 potential issues or safety or component failures?

7 A. Could you repeat that question.

8 Q. Does the CPUC have any knowledge as to whether
9 or not PG&E briefs its upper corporate officers as to
10 potential issues or safety or component failures?

11 A. I believe their system should be set up where
12 they report the problems, you know, report their concerns
13 to their upper management. I think most of it just get
14 written up as work orders.

15 As to whether they bring anything in in some
16 special way to bring to the attention of the management,
17 I'm not -- I'm not aware -- I'm not aware of their
18 practice or their culture to know that.

19 MR. NOEL: Okay. Anything else? Any follow up?

20 Mr. Lee, we thank you. You're done. Madam
21 foreperson will have an admonition for you.

22 THE COURT: Mr. Lee, you are admonished not to
23 discuss or disclose at any time outside of this jury room
24 the questions that have been asked of you or your answers
25 until you are authorized by this grand jury or the Court.
26 A violation of these instructions on your part may be the

1 basis for a charge against you of contempt of court.
2 This does not preclude you from discussing your legal
3 rights with your own attorney.

4 Mr. Lee, what I have just said is a warning not
5 to discuss this case with anyone except the Court, your
6 lawyer, or the district attorney.

7 Do you have any questions?

8 THE WITNESS: I'm sorry. I missed the part
9 about my own attorney. Was that -- am I allowed to
10 discuss if necessary? I do have my attorney here with me
11 today.

12 MR. NOEL: No. You have a CPUC attorney.

13 THE WITNESS: Yeah, a CPUC attorney.

14 MR. NOEL: But he is representing you so . . .

15 GRAND JURY FOREPERSON: Except your lawyer or
16 the district attorney.

17 THE WITNESS: Okay.

18 [DISCUSSION OMITTED.]

19 MR. NOEL: We'd ask the exhibits we dealt with
20 with Mr. Lee this afternoon 714 through 730 go into
21 evidence.

22 [Exhibit 714 through 730
23 admitted into evidence.]

24 [DISCUSSION OMITTED.]

25 [Matter adjourned at 4:30 p.m.]

26 --oOo--

COURT REPORTER'S CERTIFICATE

This is to certify that I, Lisa McDermid Welch, a Certified Shorthand Reporter of the State of California was present at the time and place the foregoing grand jury proceedings were had and taken in the within matter; and that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings; and afterwards caused my said shorthand writing to be transcribed into typewriting; and the foregoing pages, beginning at the top of Page 1 to and including Page 179 hereof, constitute a full, true, accurate, and complete record of the proceedings.

DATED: This 6th day of June, 2022.

[Lisa McDermid Welch](#)

LISA MCDERMID WELCH, CSR, RPR
CSR LICENSE NO. 10928

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

BCSC-2019-GJ-01

REDACTED
CERTIFIED
COPY

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, JANUARY 7, 2020

VOLUME 28

OROVILLE, BUTTE COUNTY, CALIFORNIA

JENNIFER L. HUNT, CSR 10735, OFFICIAL COURT REPORTER

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APPEARANCES:

FOR THE BUTTE COUNTY

DISTRICT ATTORNEY'S OFFICE:

(Not present) Michael L. Ramsey, District Attorney

(Present) Marc Noel, Deputy District Attorney

(Present) Jennifer Dupre-Tokos, Deputy Dist. Atty.

25 County Center Drive

Oroville, California 95965

FOR THE STATE OF CALIFORNIA

DEPARTMENT OF JUSTICE

OFFICE OF THE ATTORNEY

GENERAL:

(Not present) Nicholas M. Fogg, Deputy Attorney General

(Not present) Megan Richards, Deputy Attorney General

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OROVILLE, BUTTE COUNTY, CALIFORNIA

TUESDAY, JANUARY 7, 2020

8:30 a.m.

(Confidential Grand Jury Proceedings)

-oOo-

[ROLL CALL OMITTED.]

[DISCUSSION OMITTED.]

GRAND JURY FOREPERSON: (WITNESS #16), before
you have a seat, would you please raise your right hand
to be sworn.

(WITNESS #16)
having been called as a witness in
the matter now pending, having been first
duly sworn, testifies as follows:

THE WITNESS: I do.

GRAND JURY FOREPERSON: Thank you. Have a
seat, please.

EXAMINATION

BY MR. NOEL

Q. (WITNESS #16), for the record, can you please
state your full name, spelling your last name.

A. My name is (WITNESS #16), spelled (SPELLING

1 REDACTED) .

2 Q. (WITNESS #16), are you employed?

3 A. Yes.

4 Q. By whom are you employed?

5 A. Pacific Gas and Electric.

6 Q. In what capacity are you employed by Pacific
7 Gas and Electric?

8 A. I am an area manager for the hydro De Sabla
9 area.

10 Q. The hydro what?

11 A. De Sabla area. What we call the Feather River
12 Canyon, Camp 1.

13 Q. What's it means to be an area manager?

14 A. Responsible for the operation, maintenance of
15 the power houses in the De Sabla area, including -- I
16 guess there's eighty some employees, ten powerhouses, and
17 multiple dams.

18 Q. Can you tell us a little bit about what is the
19 hydro division of PG&E?

20 A. The hydro division is a, I guess, generation
21 division that incorporates hydro generators. It is -- De
22 Sabla is one of four areas that has hydro generators as
23 part of the generation assets of PG&E.

24 Q. And what did you do as the manager?

25 A. I'm responsible for budget, for maintaining the
26 fleet to make sure it's available when needed, overseeing

1 the maintenance and outages of the units.

2 Q. How long have you been with PG&E?

3 A. Started the 1st of August in 2010.

4 Q. How long have you been an area manager in the
5 hydro division?

6 A. I started as the interim area manager the
7 Monday before the Camp Fire broke out and became the
8 permanentary manager this year sometime.

9 Q. So speaking of the Camp Fire, were you
10 scheduled to work on November 8th, 2018?

11 A. It was my normal workday.

12 Q. What time would you -- were you supposed to
13 report to work on November 18 -- 8?

14 A. Well, normal report time is we have a 6:45
15 call-in meeting. The day of the Camp Fire, though -- the
16 day before, we prepped for a possible PSPS event, which
17 may or may not have been triggered at 4:00 o'clock in the
18 morning. I woke up to my alarm clock, not a call at 4:00
19 o'clock in the morning, so my day started normal, at
20 5:00, 5:05.

21 Q. PSPS is Public Safety Power Shutoff?

22 A. Correct.

23 Q. As -- working at hydro generation, what did you
24 have to do to prepare for the potential Public Safety
25 Power Shutoff?

26 A. The PSPS, that was probably one of the first

1 ones that we participated in. So the day before, we shut
2 down units in the De -- Camp 1 area, which is the De
3 Sabla unit and Toadtown unit, for down, shutdown.
4 Probably Lime Saddle as well. We shut down the
5 generators, and we moved the water around in the canal
6 system, so if they would have shut off power that
7 morning, wouldn't have been disruptive on the water
8 flows. We also had crews scheduled at 4:00 o'clock in
9 the morning coming into the Camp 1 headquarters to put up
10 generators and deal with situations that would have come
11 up.

12 Q. So the Public Safety Power Shutoff never came
13 to pass; correct?

14 A. Correct.

15 Q. So you got up at your normal time, and you said
16 you had to be at work at what time?

17 A. 6:45 is our call-in meeting.

18 Q. And do you have -- or did you in that weekend
19 of November have a regular office you reported to every
20 morning?

21 A. So my regular office is at Rodgers Flat
22 headquarters, which is in along Highway 70 in the Feather
23 River Canyon around, I guess, up from Storey, California.

24 Q. Now, what area do you live?

25 A. In Chico. If you want to consider it more on
26 the north end.

1 Q. Okay. All we need to know is what area.

2 So describe for us how you get from Chico to
3 your office at Rodgers Flat.

4 A. My normal commute is get on 99, 149, and take
5 70 into the canyon to Rodgers Flat.

6 Q. How long did it generally take for you to drive
7 to Rodgers Flat from Chico before work?

8 A. It takes about an hour.

9 Q. So on November 8, 2018, do you remember
10 approximately what time you left home?

11 A. Not exactly. Probably around 6:00 or before
12 6:00. More like 5:30, I guess, thinking about it. So --

13 Q. Did you have weigh points along the route?

14 A. So, like I said, prior to me taking this job, I
15 know if I would make it to the Tobin Bridge in Highway 70
16 at 6:30, I would make it to Rock Creek around 6:40 in
17 time for my 6:45 call. My new position, it takes a
18 little bit longer to get there. So it was kind of timing
19 my route by when I got to the Tobin Bridge.

20 Q. And what time did you believe you had to be at
21 the Tobin Bridge to be at Rodgers Flat in time for your
22 meeting?

23 A. Around 6:20.

24 Q. Okay. Do you remember if you were on time that
25 morning?

26 A. It was around 6:25-ish when I got to Tobin

1 Bridge, so --

2

3 (Grand Jury Exhibit 731 introduced for identification.)

4

5 Q. All right. So you should have in front of you
6 an Exhibit 731. And I have a copy up here on the big
7 board. Do you recognize Exhibit 731?

8 A. It's part of my normal commute.

9 Q. Well. First off, it's a map?

10 A. Yep.

11 Q. Showing starting in the CITY of Chico and
12 ending up in the right, top right corner with Rodgers
13 Flat PG&E Maintenance Station; do you recognize that?

14 A. Yeah.

15 Q. And the blue line on here, is this -- the blue
16 line depicts your normal route from Chico to Rodgers
17 Flat?

18 A. Yep. And looks like maybe I said Tobin Bridge,
19 but it would have been Pulga Bridge.

20 Q. Pulga Bridge?

21 A. Is what I meant.

22

23 (Grand Jury Exhibit 732 introduced for identification.)

24

25 Q. All right. Now I want you to look at Exhibit
26 732.

1 All right. You have 732 right there in front
2 of you. I've got a copy of it here on the big board.

3 Do you recognize Exhibit 732?

4 A. It's down in the canyon, so yes.

5 Q. Okay. So do you recognize 732 to be a Google
6 Earth satellite view of Highway 70 in the Pulga area?

7 A. Yes.

8 Q. All right. So this would have been part of
9 your route to work on November 8th?

10 A. Correct.

11 Q. So as you're coming up towards the Pulga
12 Bridge, did something catch your attention?

13 A. So as I was approaching the bridge, I noticed
14 what appeared to be at the time right at the top of the
15 ridge of the mountains a bright light, which I assumed at
16 the time was the sun kind of peeking over.

17 Q. Okay.

18 Okay. Do you remember approximately where you
19 were when you saw that light?

20 A. Somewhere kind of maybe in the vicinity where
21 it's -- the 70 is.

22 Q. Okay. You can get up and walk around. And
23 we've actually got --

24 A. I assume maybe down in this area. It was
25 before the bridge. I know there's some kind of winding
26 there.

1 Q. Okay. So somewhere right around here?

2 A. Yeah.

3 Q. So we've drawn a black circle on Highway 70.

4 So -- and this would be the Pulga Bridge right

5 here; correct?

6 A. Yeah.

7 Q. The black line going over the river?

8 A. Yep.

9 Q. All right. So you said as you're approaching

10 the Pulga Bridge you see something bright in the sky off

11 in the distance?

12 A. Correct.

13 Q. You said you thought maybe it was the sun

14 starting to come up?

15 A. Yep.

16 Q. All right. Did you continue on?

17 A. Yes.

18 Q. Eventually did you realize that that light was

19 not the sun?

20 A. Yes. Somewhere --

21 Q. Describe for us what happened.

22 A. So somewhere I believe between Pulga Bridge and

23 by the Sandy Beach area, which is -- I noticed that the

24 light wasn't actually the sun coming over but it was

25 actually a fire underneath the power lines.

26 Q. Okay. Do you know approximate location under

1 the power lines?

2 A. It was at the, kind of the base of a tower.

3 Q. Okay.

4 A. In the cleared section underneath.

5 Q. All right. So in more general terms, was the

6 fire on the same side of the river as the highway or on

7 the other side of the road?

8 A. Opposite side.

9 Q. Opposite side on the river?

10 A. On the railroad wide.

11 Q. Was the fire -- do you know where the railroad

12 tracks are that parallel the river?

13 A. Yes.

14 Q. Was the fire above or below the railroad

15 tracks?

16 A. It was above the railroad tracks, more up on

17 the mountains.

18 Q. Okay. And on 732, one of the landmarks that we

19 have marked on here is Sandy Beach in green; correct?

20 A. Correct.

21 Q. And that's about where you saw the light was

22 actually a fire?

23 A. In that area, yeah. I don't really exactly --

24 I believe -- in that area was multiple towers and the

25 lines run along there.

26 Q. Okay. Got to save that before we go on.

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(Grand Jury Exhibit 733 introduced for identification.)

Q. All right. So I'm going to back up and have you look at -- all right.

Now you have in front of you 732 -- I'm sorry -- 733. Do you recognize 733?

A. Yes.

Q. What is 733?

A. The bridge you see is the Pulga Bridge with the road that veers off to the left of Pulga, and the railroad bridge underneath. And you can see the mountaintops, probably even the transmission tower kind of on the top of the mountains.

Q. Is this photograph taken from approximately where you saw the light that you initially thought was the sun?

A. Yes. Close to it, yes.

Q. So where was the sun, approximately?

A. If this is correct what I'm seeing, this is probably the towers right here. So it would have been right in this area.

Q. Let me -- go ahead and draw. We can erase, then do it again.

A. Keep my other finger out of there.

Q. Here. The best thing we have to use is the

1 back end of that pen. There we go.

2 A. All righty.

3 Q. So you've drawn a red circle around the
4 approximate location where you saw the glow in the sky?

5 A. I'm assuming if that's the towers, yes. Kind
6 of looks like it's the towers.

7 Q. Saving.

8 A. At the time I guess I didn't see the towers,
9 but, I mean, I wasn't looking for the towers.

10

11 (Grand Jury Exhibit 734 introduced for identification.)

12

13 Q. All right. Now let's move on to 734. Do you
14 recognize 734?

15 A. Yes.

16 Q. What is 734?

17 A. Another Google image of about the same
18 location, looks like between Pulga Bridge. I see the Cal
19 Trans yard, what you're calling Sandy Beach is also
20 referred to the same area as Beer Can Beach, and Poe Dam,
21 and further down the street.

22 Q. So down here in the bottom left-hand side
23 corner?

24 A. The Pulga Bridge.

25 Q. Okay. And --

26 A. Cal Trans yard and Poe Dam.

1 Q. Once you realized that the light was a fire
2 under the transmission lines, what did you do?

3 A. I, I was in a PG&E work truck. In the work
4 truck are PG&E company radios. So I called the Rock
5 Creek Switching Center, which is our normal protocol for
6 calling in fires, and reported the fire to the Rock Creek
7 Switching Center operator.

8 Q. Do you remember approximately your location
9 when you made the initial radio call?

10 A. Somewhere, I would imagine, between Pulga
11 Bridge and the Cal Trans yard.

12

13 (Grand Jury Exhibit 735 introduced for identification.)

14

15 Q. I'm going to go to 735. Do you see Exhibit
16 735?

17 A. I do.

18 Q. Do you recognize Exhibit 735?

19 A. It is the Cal Trans yard off to the right,
20 along with their area where they store gravel and road
21 base. And then you can see the transmission towers up on
22 the hillside on the side.

23 Q. Where approximately was the fire when you saw
24 it when you called it in?

25 A. It may have been around this location, just
26 because the vegetation kind of opens up in this area

1 where you can actually probably get a better glimpse.
2 Prior to this there's trees kind of along the roadside,
3 makes it a little bit harder to look at. So could have
4 possibly been in this area where I called it in, was able
5 to see.

6
7 (Grand Jury Exhibit 132 introduced for identification.)

8
9 (Grand Jury Exhibit 132A introduced for identification.)

10
11 Q. All right. So next I want to go on to Exhibit
12 132. And I'm going to show you, we have a copy here of
13 132A, which is a transcript, and so you can follow along.

14 And we have copies of 132A in the PowerPoint so
15 everybody can follow along. Why don't you listen.

16 (Audio plays.)

17 Q. So I'm going to stop it right there.

18 Do you know (WITNESS #7)?

19 A. Yes.

20 Q. Who is (WITNESS #7)?

21 A. He's an operator at the Rock Creek Switching
22 Center. He's a hydro operator. He's one of the board
23 operators who was on the shift.

24 Q. Okay. Somebody you supervise?

25 A. Prior to that Monday, he was my direct report,
26 yes. But he still received the Rock Creek switching

1 center.

2 Q. You said when you realized it was a fire on the
3 transmission line, you used your radio to contact Rock
4 Creek. Was (WITNESS #7) the person you contacted?

5 A. Yes.

6 Q. All right.

7 (Audio plays.)

8 Q. All right. Interrupt it again.

9 Do you hear that disembodied voice in the back
10 that says "Rock Creek 2-0"?

11 A. Yes.

12 Q. Do you recognize that voice?

13 A. (EMPLOYEE #2), another Rock Creek Switching
14 Center Operator.

15 Q. And are you familiar with the term "2-0"?

16 A. My radio call number is 6420, so he just used
17 the last two from caller ID.

18 Q. So 2-0 is you?

19 A. Yes.

20 (Audio plays.)

21 Q. All right. So is that you describing the fire?

22 A. Yes.

23 Q. So do you recall where you were at when you got
24 the radio call for more, asking for more information?

25 A. I'm not sure exactly. I was kind of looking
26 back over my shoulder at the fire to get a -- when I got

1 the call back.

2 Q. Okay. So were you past the Poe Dam?

3 A. I don't recall the location of Poe Dam, but I
4 wasn't -- I can't say for sure.

5 Q. Okay.

6 A. It was in that area.

7 Q. But as you were describing the fire, you were
8 describing what you were seeing at the time?

9 A. Correct.

10 Q. All right. Did you make it in time for your
11 6:45 call?

12 A. I went to Rock Creek Switching Center and did
13 the call from there. Also -- yes.

14 Q. All right.

15 I have nothing further of this witness. If any
16 of the jurors have questions?

17 Seeing none, I believe that's all we have for
18 you this morning. Madam Foreperson is going to read you
19 an admonition.

20 GRAND JURY FOREPERSON: (WITNESS #16), you are
21 admonished not to discuss or disclose at any time outside
22 of this jury room the questions that have been asked of
23 you or your answers until authorized by Grand Jury or the
24 Court. A violation of these instructions on your part
25 may be the basis for a charge against you of contempt of
26 court. This does not preclude you from discussing your

1 legal rights with your own attorney.

2 (WITNESS #16), what I have just said is a
3 warning not to discuss this case with anyone except the
4 Court, your lawyer, or the district attorney. Do you
5 have any questions?

6 THE WITNESS: No.

7 GRAND JURY FOREPERSON: Okay. Thank you for
8 your time today.

9 THE WITNESS: Thanks.

10 MS. DUPRE-TOKOS: Did everyone get the
11 PowerPoint for Captain Ascencio?

12 GRAND JURY FOREPERSON: All members of the
13 Grand Jury are present.

14 Captain Ascencio, if you would raise your right
15 hand to be sworn, please.

16
17 CAPTAIN ABEL ASCENCIO
18 having been called as a witness in
19 the matter now pending, having been first
20 duly sworn, testifies as follows:

21
22 THE WITNESS: I swear to God, so help me God.

23 GRAND JURY FOREPERSON: Thank you. Have a
24 seat, please.

25
26 EXAMINATION

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BY MS. DUPRE-TOKOS

Q. Good morning.

A. Good morning.

Q. It is still morning?

Are you employed?

A. Yes.

Q. Could you tell us where?

A. I'm employed by the State of California. I'm a fire captain in the Butte unit. I'm currently working at the station in the Stirling City.

Q. So you work with -- for Cal Fire?

A. Yes.

Q. So you said you're currently stationed in, at Stirling City?

A. At Stirling City Fire Station.

Q. How long have you been there?

A. At that station I have been permanently for the last six years, I believe.

Q. Okay. What is your job title with Cal Fire?

A. I'm a fire captain.

Q. And how long have you been a fire captain?

A. Approximately 13 to 15 years.

Q. And what were you before you became a fire captain?

1 A. I was a fire apparatus engineer.
2 Q. How long were you a fire apparatus engineer?
3 A. I believe around eight years.
4 Q. And prior to that?
5 A. Firefighter.
6 Q. For about how long?
7 A. About 13 years.
8 Q. So how long have you been a firefighter with
9 one title or another?
10 A. All together, I am on my 30th year with Cal
11 Fire, and I have one year with CCCs.
12 Q. California Conservation Corps?
13 A. Yes.
14 Q. Now, do you have any medical training?
15 A. Yes. I am an EMT, Emergency Medical
16 Technician.
17 Q. And are you certified?
18 A. I'm certified.
19 Q. How long have you been a certified EMT?
20 A. For the last probably 25 years.
21 Q. And do you have to certify, or re-certify
22 regularly?
23 A. Yes. We are recertify every three years.
24 Q. And as a certified EMT, are you familiar with
25 first-degree, second-degree, and third-degree burns?
26 A. Yes, I am.

1 Q. Could you tell us what the difference is
2 between those.

3 A. The first-degree burn probably can be easily
4 explained as a sunburn with, shows redness on the skin,
5 no blister. Second-degree burn is the showing blisters.
6 The third-degree burn, as far as basically burning the
7 outer layers of the skin and going deeper into the skin.
8 In some cases, the skin turns relatively white and very
9 dry. And in other cases, depending on the what type of
10 burn it is, if it's direct flame burn, or if it's a
11 radiant heat burn, if there is contaminants, sometimes
12 the skin turns dark or black.

13 Q. And you said sometimes the skin will be dry?

14 A. Yes. It gets very, very dry and crinkled.
15 Pretty much looks like a person that has aged
16 tremendously. Because there is no moisture in the skin.
17 The skin starts contracting and crinkling and basically
18 prepares to burst into flames.

19 Q. Okay. What happens if you touch someone's skin
20 when it's in that condition, when it's dry and wrinkled?

21 A. Most of the time it becomes very flaky. And if
22 you apply too much pressure, it might come off the body.
23 It detaches, because it basically has burned off the
24 body. And the skin basically hanging there ready to peel
25 off.

26 Q. And in your 31 years in the fire service, have

1 you had occasion to see third-degree burns before?

2 A. Yes, I have seen previously.

3 Q. Were you on duty on November 8th, 2018?

4 A. Yes, I was.

5 Q. And how long had you been on duty for?

6 A. I was for a period approximate of, I believe,
7 about seven to eight days prior to it.

8 Q. And were you getting ready for a day off soon?

9 A. My day off was going to be on November 9th.

10 Q. Did you get a day off on November 9th?

11 A. No. I continue working until the end of the
12 fighting, until they declared the fire was controlled.

13 Q. So the morning of November 8th, can you tell us
14 how your day started?

15 A. The morning of -- well, I can probably -- I
16 should start from the 9th, or the day before of November
17 8th. The weather conditions kept me in a ready, as
18 specified to us via email that it was very dangerous.
19 The winds were expected to be blowing probably about 60
20 miles per hour or more with gusts.

21 So the night before, as I was asleep, I
22 remember listening to the wind moving leaves and hitting
23 the window in my room. I was expecting for something to
24 happen. Nothing happened that night, but the morning of
25 November 8th, I woke up and I basically thanked God that
26 nothing happened that night.

1 Q. And you slept at the fire station?

2 A. Yes, I was asleep on the fire station. And I
3 went to get a cup of coffee about 6:00 o'clock. And,
4 like I said, I was saying things kind of nothing happened
5 last night, so we are okay. As I was drinking my coffee,
6 around I believe probably 6:30, I heard the call that was
7 fire in the area of Pulga. And right away, due to the
8 weather conditions, I indicated to my firefighters north
9 of them to get ready and go and dress up in our safety
10 gear because we were going to go to this call. We were
11 going to be, whether assigned to the call or go to
12 another station to cover, and be prepared in case they
13 need us. By the time we got to the engine and we were
14 dressed, we heard on the radio that our engine number.
15 So they included us in the initial dispatch.

16 Q. So what did you do on, once you heard that you
17 are included in the initial dispatch?

18 A. Once I was included in the initial dispatch, I
19 ordered my firefighters to start taking all the
20 information necessary, as I was basically predicting to
21 them that this fire was going to be out of their
22 ordinary. I requested for them to be very, very careful
23 and give me all the routing instructions, as I was not
24 really familiar with the Pulga area. However, I am
25 familiar with the general location.

26 Q. So did you actually go to the Pulga area?

1 A. We never made it to the Pulga area. By the
2 time that we were crossing the bridge of the lake, we
3 receive orders that it went into, divert into the Concow
4 area as the fire had already started in that area.

5 Q. So did you head toward Concow?

6 A. Yes. As soon as we got those orders, I
7 redirected my firefighters to pull up any information
8 that we have on that area; maps and additional
9 information like schools and all their areas that we can
10 take people to to shelter in place. So we were driving
11 down there within, I don't remember, maybe a mile or so
12 on the road, we started seeing the smoke and the fire.

13 Q. Now, did you get dispatched to look for anyone
14 in particular initially?

15 A. Initially, we were not. Not right away. I
16 remember they, as we were going into the area, we
17 encountered zero visibility due to the heavy smoke. We
18 had to stop on the road, and we have active flames on the
19 right side of our fire engine. And I remember on the
20 left side that where multiple cars trying to evacuate the
21 area. The left side was involved in flames, the
22 vegetation; everything was just flames and smoke.

23 The wind was blowing in the direction of the
24 engine, so we are taking a lot of heat during that time.
25 At one point, my engine inside the cab, even though we
26 had the air conditioning to the maximum, we start

1 experiencing the temperatures increasing and the smoke
2 inside the fire engine.

3 Q. So what did you do?

4 A. At that moment, I had to order the engine that
5 was in front of me to try to make a U-turn wherever
6 possible because we needed to retreat. That was not
7 possible for the next probably 10 minutes, 15 minutes,
8 because the zero visibility and vehicles continuing to
9 try to evacuate the area.

10 I noticed that there was in front of that
11 engine a driveway, so on the radio I was trying to direct
12 them to do a U-turn right there. At one point, when the
13 wind changed and visibility became better, they were able
14 to take the opportunity to turn around. However, once
15 they left, I was stuck again because there was no
16 visibility, zero visibility came back again, and vehicles
17 were trying to evacuate. So I had to wait for another 5
18 to 10 minutes for me to turn around and leave the area.

19 Once the visibility was better, I was able to
20 turn around and we left the area. We probably drove
21 maybe about a half a mile to find an area to turn around,
22 because we were going to make another attempt to cross
23 that point. So we did that. And after we did that, then
24 we receive orders, specifically to my fire engine, 2162,
25 to go and look for a person in a wheelchair. And I have
26 hear before on the radio that all the personnel was

1 looking to locate this person in a wheelchair.

2 Q. So did you make efforts to find the person in
3 the wheelchair?

4 A. Yes. Me and one of the battalion chiefs who
5 was giving me the order to follow him, we tried multiple
6 routes to access the location that was given to look for
7 this individual. But it was, it came to be impossible
8 because every access, every road, everything was blocked
9 by fallen trees, power lines, fallen power poles, creeks.
10 There was multiple obstacles. And at one point, the
11 battalion chief told me to abandon that objective and
12 return back to my previous assignment. It was to try to
13 locate as many people and evacuate them from danger.

14 Q. So when you returned to your initial
15 assignment, were you able to assist anyone?

16 A. Yes. I returned to my ordinary assignment. I
17 encountered three people, I don't remember if it was one
18 male and two females, that they were here in the road. I
19 stopped and I ordered my firefighters to get them in the
20 fire engine. All of them got in the back of the fire
21 engine, in the backseat. They were telling me that there
22 was another lady in a creek taking shelter. So I turned
23 around, made the U-turn, turned around as fast as
24 possible, took them to the Camelot area, where a lot of
25 people were taking shelter. And I put my -- asked the
26 vehicles to go and find -- I believe there was a Butte

1 County Sheriff Deputy in the area, and called him for
2 information and also for accountability.

3 After that, I noticed that there was another
4 fire engine right in Camelot, so I came to the operator
5 and I asked him to follow me because we had another
6 victim, and I didn't know what to expect, if we were
7 going to need additional help.

8 As we arrived to the location, we found the
9 victim, the lady, in the creek.

10 Q. I'm going to interrupt real quick. When you
11 said "arrived" at the location, was that in Concow again?

12 A. Yes. So we went back to the Concow Road, and
13 we arrived to the location that was given by the three
14 people that we rescued previously. And we found the lady
15 in the creek, and we helped her out from the creek. She
16 didn't want to leave the area because she didn't want to
17 leave her car and her three dogs. So we tried to
18 dislodge the car. The car was high centered on a big
19 tree that came across the road. We cut part of the tree.
20 We were ineffective to dislodge the tree from under the
21 car. So I asked the lady to please get in the fire
22 engine and go with the firefighters. She insisted that
23 she wanted her dogs. So I ordered the firefighters to
24 take the dogs and put them on the back of the fire
25 engine. And when that happened, she was really happy and
26 willing to go.

1 Q. Now, was that your engine or the other engine?

2 A. The other engine I think that came to assist
3 me.

4 Once that happened, the engine, we help them to
5 make a U-turn to turn to Camelot, and we stay in there,
6 once the -- I got in the fire engine, I heard a message
7 over the radio of a lady that -- they didn't say "lady,"
8 but they said there was a victim with possible burns, in
9 the area of broken glass. When I heard that, I
10 instructed my firefighters to locate the area and to tell
11 me how close we were to that location.

12 Q. And were you very close?

13 A. Appears to be the, that we were the closest
14 resource to that location.

15 Q. So what did you do?

16 A. Well, as soon as I -- they told me that we were
17 nearby, I radioed in to, my engine number to the
18 battalion chief, and I told him that I was en route to
19 that location. It took us probably five minutes to get
20 to the location.

21 Q. What did you see, if anything, when you got
22 there?

23 A. When I got there, the very top of the road, the
24 road was very narrow. And due to the fire, the
25 conditions, I hesitated for a moment because we were
26 almost on zero visibility, very hard to see, with that

1 road so narrow. That moment I didn't want to put myself
2 in danger and put my firefighters in danger, that we
3 might start driving into something that we couldn't get
4 out, and we might end up being like in the previous
5 situation with fire on both sides of the road. But for
6 some reason, I just decided, well, you know what, we're
7 right here, might as well go and do it.

8 And I remember that I drove probably for about
9 two or three feet at low speed when suddenly out of the
10 smoke I saw -- I saw -- excuse me. I saw a hand was on
11 the ground. From the ground I saw a hand waving. And to
12 me it was something almost unbelievable.

13 So I sped up to try to get to that person that
14 was waving from the ground. And I stopped probably about
15 five feet. I ordered my firefighters to get out and get
16 the medical equipment to render first aid. Right next to
17 the lady there was also a male, who right away I went and
18 checked for vital signs; however, I didn't find no signs
19 of life. And rigidity was already setting. I turned
20 around and I ordered my firefighters to check on the
21 individual again for any signs of life. At the same
22 time, I was looking at the injuries that the female
23 victim had suffered. And I noticed that she had first,
24 second, and third degree, most of it was third-degree
25 burns, to the legs, to the hands, the face.

26 Q. About what percent of her body would you say

1 had suffered severe burns?

2 A. My quick calculation was that probably about 40
3 to 50 percent of the body was suffering from burns all
4 together between the second- and third-degree.

5 Q. Okay. Why don't we take a short break. And
6 that way, anybody needs to use the restroom can use it.
7 About a 10- or 15-minute break?

8 GRAND JURY FOREPERSON: Okay. Before we do, we
9 need to admonish him.

10 MR. NOEL: Yep. Give him the admonishment.

11 GRAND JURY FOREPERSON: Captain Ascencio, you
12 are admonished not to discuss or disclose at any time
13 outside of this jury room the questions that have been
14 asked of you or your answers until authorized by the
15 Grand Jury or the Court. A violation of these
16 instructions on your part may be the basis for a charge
17 against you of contempt of court. This does not preclude
18 you from discussing your legal rights with your own
19 attorney.

20 Captain Ascencio, what I have just said is a
21 warning not to discuss this case with anyone except the
22 Court, your lawyer, or the district attorney. Do you
23 have any questions?

24 THE WITNESS: No.

25 GRAND JURY FOREPERSON: Okay. Thank you.

26 THE WITNESS: You're welcome.

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(Break taken.)

GRAND JURY FOREPERSON: All members of the Grand Jury have returned and are ready to proceed.

Captain Ascencio, I'd just like to remind you that you're still under oath.

THE WITNESS: Thank you.

Q. (By MS. DUPRE-TOKOS) So, Captain, you said that your quick initial assessment, the woman appeared to be 40 to 50 percent second- and third-degree burns; is that correct?

A. That's correct.

Q. Okay. Now, where was she located?

A. In relation to the road, as I was coming down, she was on the left-hand side. I cannot really, you know, tell you if it was north or south.

Q. Well, was there anything around her?

A. Oh, yes. There was a pickup right next to her. I believe the color was white. And the way that she was laying on the ground and the other person laid on the ground was like her head was facing to the road, and the other male victim was laying opposite, like, like they were touching themselves with their feet.

At the moment, I asked my firefighter to double check vital signs on the male, which it turned out to be that he didn't find any. There was no signs of life.

Q. And you hadn't found any signs of life?

1 A. And I did not find no signs of life. My
2 firefighter asked me to check for him. The situation was
3 probably a little bit different than what we ever been
4 in. And he was hesitating that he might have made a
5 mistake, so he wanted me to ensure that his assessment
6 was correct. So I went and I double check, and the
7 assessment was pretty much conclusive to the same
8 results.

9 Q. No signs of life?

10 A. No signs of life.

11 Q. So at that point, what did you do with regards
12 to the female?

13 A. In regards to the female, the same time there
14 was my second firefighter taking care of her, deploying
15 our oxygen bottle and oxygen mask to provide oxygen. One
16 of my biggest concerns was the possibility of heated
17 gasses inhaled and producing any burns in the lungs or
18 the airway. So for that I instructed my firefighters,
19 and I told them that there was no possibility for us to
20 render proper care under these circumstances with threat
21 of fire, and that it's no possibility for ambulances to
22 come to our location for any other additional help, that
23 we needed to provide adequate first aid and life support
24 to her. So my orders were to provide high oxygen and
25 quickly move her and put her in the fire engine, in the
26 backseat, and drive her away from the fire area.

1 Q. And did you do that?

2 A. Yes, we did that. I remember, I lift -- we
3 lifted the lady and actually I carried her in my arms,
4 because one firefighter had to get in the engine since
5 the fire engine's really tall. One got in the fire
6 engine, the other one helped me by carrying on the steps
7 of the engine, then we pretty much did like the bucket
8 brigade, passing her on to us on the seat.

9 I instructed the firefighter in the back taking
10 care of her that he needed to keep her as conscious as
11 possible and to start asking her questions about her name
12 and whatever he can ask her and maintain communication,
13 because I needed to know if she would lose consciousness
14 or if her vitals will change. Because if she would
15 suffer a cardiac arrest, then our, our objectives were
16 going to be changing quick and our mode of operation to
17 now we will have to start CPR.

18 Q. I'm going to take a step back. And I think you
19 said it, but I just want to check. Where did you see
20 burns on her?

21 A. The burns were on her legs. She -- well, let
22 me explain how I saw her. As I approached her, she only
23 had sweatshirt with a hood and she was trying to protect
24 her airway. She did -- she only had underwear and no
25 pants, no nothing to cover her legs. So most of all the
26 burns that I noticed right away were on her legs. Then I

1 noticed her arms, her hands, and part of the arms, even
2 though the sweatshirt was covering, but there was some
3 problem about her hands, some burns. And on her face.
4 Her face was extremely wrinkled because the contraction.
5 The heat pretty much evaporated all the moisture of the
6 skin and the skin was so wrinkly that she looked probably
7 like a 90-year-old lady.

8 Q. And so that's what you were telling us before
9 about like a third-degree burn that sucks the moisture
10 out?

11 A. Yes, third-degree burn.

12 Q. So when you picked her up, did you notice
13 anything about her skin at that time?

14 A. Yes, I -- when I pick her up, obviously my
15 hands touch her legs and I touched the skin. The skin
16 was very flaky and falling off. Also, I felt how dry the
17 skin was; have no flexibility, no moisture, was so dry,
18 so crackling.

19 Then, you know, I help her to get in the
20 engine. And I remember after we took her to the
21 ambulance, we had to clean a lot of her skin off the
22 seat.

23 Q. So you said you took her to an ambulance. At
24 some point when you were driving her out of Concow, did
25 you request to be met by an ambulance?

26 A. Yes. Once that she was secure in the fire

1 engine, I got in the engine, I needed to make a U-turn
2 because I didn't know where this road would take me to or
3 how bad it will -- you know -- long and travel through
4 that road was going to be. So I made, as fast as
5 possible, a U-turn. I run up the road, I drove up the
6 road, and at the same time I contacted the battalion
7 chief that was in charge of the area and I requested, I
8 -- first, I give him the information that I had the
9 victim with 40 to 50 percent of the body with burn
10 injuries, and I requested for a medic air, helicopter
11 flight care, and an ambulance to meet me outside the fire
12 area.

13 Q. And were you driving code 3 with lights and
14 sirens?

15 A. Yes. For that particular purpose, I deemed the
16 best, fastest way for me to open my way through the fire
17 was going to be to turn on my red lights and sirens
18 indicating that I had an emergency, not only through the,
19 through the people that were trying to escape, but by
20 this time the roads were relatively clear, but all the
21 other incoming resources I needed to advise them that
22 basically I need the right-of-way to get out of there.

23 Q. And how was that drive?

24 A. The drive was extremely long. As I was driving
25 out, I came -- at one point, I believe probably was in
26 the same area where I got stopped by zero visibility when

1 I was coming in, when I was coming out. For some reason,
2 I end up seeing something that was flickering in front of
3 me. I don't remember how far away. And I had to
4 basically do an emergency stop because it was actually
5 power lines down that were at my eye level. I didn't
6 want to, number one, damage the engine, but also I didn't
7 want to incur any injuries to anybody. So I had to do
8 that emergency stop and order my firefighter to go and
9 cut off the electrical power lines, which he hesitated,
10 because he asked me if they were live or if they were
11 without energy. By this time I was pretty sure that
12 there was no energy in those lines, so I told him that it
13 was okay to cut them off. And he did. And from there we
14 continue code 3 to where my supervisor chief has told me
15 that at the Dome Store on Highway 70 in Concow there was
16 going to be an ambulance waiting for us to provide life
17 care to the victim.

18 Q. Now, before we talk about that, what did you do
19 with the, with the male who showed no signs of life?

20 A. The male, I tried to, I tried to roll him over
21 so, so I can see his face, but he was very rigid. His
22 hands were basically covering around his face, his
23 airway, trying to breathe fresh air I'm assuming from the
24 ground. That was basically the position that I found
25 him. When I move him, his hands pretty much move
26 together.

1 Q. Did you have to leave him there or did you
2 bring him with you?

3 A. I have to leave him there because I had the
4 female's life that had become a priority. But I had
5 requested and I provided the information of the deceased
6 victim to my supervisor chief so they can send another
7 equipment or resources to secure the area.

8 Q. So when you got to the store, was there an
9 ambulance waiting?

10 A. Yes. As I arrived to the store, within
11 probably a hundred feet I saw the ambulance waiting
12 there. Then I park right next to it, I cut off the
13 engine, and I provided information to the paramedics. I
14 told them that my initial assessment was about 40 to 50
15 percent of the body with second- and third-degree burns,
16 and that I was very, very concerned about the facial
17 burns and also very concerned because probably the airway
18 and the lungs probably suffered some sort of burn
19 injuries.

20 Q. And so did you help remove her from the engine?

21 A. Yes. I ordered my firefighters to get ready
22 and, again, when we opened the door, I pretty much took
23 her in my arms, and I put her in the gurney with the help
24 of my firefighter and the medic.

25 Q. Okay. And when, when you were holding her
26 again and moving her to the gurney, was her skin

1 condition the same?

2 A. Yes. The same feeling, same skin condition;
3 flaky, falling apart, very dry.

4 Q. Now, did you ever learn her name?

5 A. No, not during that time. I do not remember if
6 she was able to provide the name to my firefighters or if
7 I was so busy and concentrating on saving her life and
8 moving her out of the fire area that I didn't pay
9 attention. That part I cannot remember because my
10 priority was her life.

11 Q. Did you ever learn her name?

12 A. Eventually I did. I was at work when my
13 mother-in-law send me a text with, with a video clip from
14 the news from Sacramento Channel 40. They were running a
15 news clip that, with her, with her and her story about
16 how she survived.

17 At the moment, I was confused because I didn't
18 know if she was the person that I actually rescued or
19 not, since I didn't have no name. Later on I was in Ione
20 Fire Academy, Cal Fire Academy, where one of our training
21 officers contacted me via phone, and he told me that
22 there is this lady named Tara Hill, that she would like
23 to meet me and my crew and that we were the ones who took
24 her from Concow to, to an ambulance, that we rescued her.
25 I -- still I was little bit confused. I didn't know.

26 Q. Why?

1 A. Because the way she looked during the time when
2 we had rescued her, it was thoroughly different than the
3 way that now she was looking. You know, my brain was
4 confused between that I saw a lady that was probably 90
5 years old, due to the burn injuries the face was sort of
6 wrinkled, and nowadays I'm seeing the lady that it was
7 healing, her face didn't look the same, and then I find
8 out that she was like, I believe she was in her 30s. I
9 don't remember exactly how old she is, but that is the
10 reason why I was a little bit confused.

11 Q. So when was the first time that you discovered
12 that she had survived?

13 A. When my mother-in-law sent me the video clip
14 from the news.

15 Q. And so you did actually get to meet her in
16 person?

17 A. Yes. Eventually, I was contacted again through
18 my supervisors, and I was told that she would like to
19 meet us. And I said that that was perfectly fine, that
20 we would like to do that. It took a little bit of time
21 because I believed she was still in recovery. And she
22 wanted to wait until she was able to be more mobile.

23 So it took -- I don't remember, maybe two
24 months later on we got to organize a meeting, Fire
25 Station 42 in Chico. The news, the local news, was in
26 there. And that was the first time I saw her since the

1 fire. We had the really good conversation and,
2 obviously, we hug and, and say "hi" and all those things
3 and talk for a little bit.

4 Q. But, again, at first you didn't recognize her?

5 A. No. She was not -- you know, in my mind she
6 was not the person that I had rescued just because the
7 injuries were totally different.

8 Q. Now, based on your training and experience,
9 were her burn injuries life-threatening?

10 A. Yes. Yes. The injuries were severe enough
11 that threaten her life and there is high possibility that
12 she probably could have died if no early rescue was
13 there. Not only did -- the burns are very threatening,
14 but also the threat of infection that complicates the
15 injuries.

16 Q. And then earlier you said you were also worried
17 about internal burn injuries?

18 A. Yes. Those are probably the most threatening
19 injuries; however, I do not know if she actually suffered
20 any of those injuries, because I never got any report of
21 that. And since they are internal, there was no way for
22 me to see that.

23 Q. But based on the physical burns that you saw,
24 her life was in danger?

25 A. Yes.

26 (Counsel confer.)

1 Q. (By MS. DUPRE-TOKOS) So just, let's talk just
2 generally about the fire.

3 Now, that day, after you dropped Ms. Hill off
4 with the ambulance, did you have any issues with your
5 fire engine?

6 A. Yes. As soon as I dropped her in the ambulance
7 and we assist the medics to put her in the ambulance,
8 then I was conflicted with another decision that I had to
9 make, because the medics sometimes want to have an
10 additional person to do treatment. But my conflict, my
11 confliction was that I have many other people that needs
12 help, and here -- and she is at the moment -- I was
13 seeing that she's already safe and medical emergency care
14 is, can be provided versus probably the people that are
15 still out there in the fire, they have no help. And I
16 have to make my command decision that I needed to return
17 back to keep returning more people from the fire.

18 However, when I turn off the fire engine, the
19 compressor, the air compressor in the engine stopped
20 working. And when I turned it back on, I realized that
21 my air tanks for the brakes mechanism was empty. So it
22 took a little bit of time to fill back to the normal
23 level. That allows the brakes to be released.

24 I had requested assistance from one of our
25 dozer operators, that they are more mechanically
26 inclined, to help me to locate where I have the air leak,

1 because I can hear there was an air leak. And thinking
2 back from there, from that time, I remember hearing that
3 air leak when I was rescuing Tara Hill. Right in there
4 when we were actually taking her into the engine, I
5 remember hearing air, but I was, I was thinking it
6 probably was the oxygen tank, that that's what the noise
7 was coming from. But then when I got to the Dome Store
8 and that happened, I realized that I have an air leak in
9 the system. However, when the compressor was running it
10 was able to maintain an adequate pressure for the brakes
11 to work. Which then I had to face another decision that
12 I had to make, and I -- again, I took the command
13 decision to take myself and drive all the way to
14 Oroville, requesting an emergency mechanic to come and
15 help me to fix it.

16 I arrived to the Oroville shop for the Butte
17 County Fire, and they helped me to repair two different
18 hoses that appears to be, that they melted when we were
19 stopped by the zero visibility previously. Luckily, the
20 fix was relatively simple and they were able to fix it
21 within like five to ten minutes.

22 Within the same time, I was walking outside the
23 shop and looking into the direction of Concow area,
24 Paradise, and I remember seeing a very, very dark black
25 smoke coming from that area which indicated that
26 basically the town of Paradise was already engulfed in

1 flames. It didn't feel good to be sitting at the
2 mechanics shop doing that when I can be over there with
3 my friends. So I had requested the mechanics to hurry
4 up, and they did. And as soon as the fire engine was
5 back in service, I communicated that I was back in
6 service to my dispatch, and I returned to the fire.

7 Q. And where did you go?

8 A. I returned to my previous assignment on Concow
9 area. I communicated that to my chief, and he
10 acknowledged that.

11 So we spend all day. The fire appeared to be
12 -- because it spread so far and so fast, that all that we
13 had left was some sections, pockets of areas that didn't
14 burn, but still with high threat of fire coming to that
15 area. So we were trying to prep houses, prepare houses
16 for the fire to come in, to move any combustibles,
17 materials, turn on sprinklers if they had any, raking
18 leaves, raking pine needles, removing any possible
19 flammables from around the structures. We made a few
20 attempts to continue on some roads, but the fire was
21 moving relatively fast down the hill.

22 I remember on one structure my supervisor asked
23 me to go into that location and try to prep the
24 structure. My trigger point to move out of that area was
25 the fire coming down, and I put my trigger point, I
26 believe probably about 500 feet. So I got on top of the

1 engine. And while my firefighters were executing the
2 orders of removing flammables and combustibles from
3 around the structure, I got on top of the engine to look
4 at what the fire was doing, and within a few minutes I
5 noticed that we were having a spot fires right on the,
6 next to the driveway. Basically at one point I perceived
7 that our escape route was going to be compromised, so I
8 ordered them to get back in the engine and we left the
9 area.

10 Multiple times we were trying to continue to do
11 some type of work to fight the fire, but the fire was
12 moving so fast and the terrain was so difficult that we
13 had to retrieve constantly and go further away from the
14 fire to continue preparing houses and structures. All
15 day long.

16 And when the night came in, I remember the fire
17 was still moving relatively fast. There was some
18 structures where we had hoses around it, and there was
19 one situation where the fire started moving so fast it,
20 it started to drop in embers, and we had probably 30 or
21 40 spot fires right next to our engine. So we took
22 action on that. And we thought like it was going to be a
23 lost cause, so we had to, again, move out of that area,
24 area further down the road to try to protect other
25 structures.

26 At one point, the winds changed and the fire

1 was slowing down a little bit, so they, they ordered us
2 to start doing patrolling along the roads to try to check
3 on every structure along the road. And if any structure
4 will be compromised we will be taking action on it.

5 Then they prepared for a backfiring operation,
6 and we were ordered to move into the Highway 70 area.
7 The wind conditions were not so good, so our fire
8 operation was compromised and the wind blew the fire
9 across the roads, that they were expecting to hold the
10 fire on. So all that we were able to do from then on,
11 and I believe that was around probably 3:00 o'clock in
12 the morning or 4:00 o'clock in the morning, all we could
13 do by then was just to stay in Highway 70 and patrolling
14 that area and trying to prevent the fire from crossing
15 Highway 70 into the, now will compromise the area of
16 Cherokee.

17 Q. Now, you've been working since 6:00 in the
18 morning, or 6:30 in the morning, when you first got
19 called out. How long before you actually got a break
20 from the fire line?

21 A. That specific day?

22 Q. Or whenever it was.

23 A. Yes. Our help didn't come back -- or we were
24 not given information to, that we were going to have a
25 break during that day on 70. Probably was about 12:00
26 o'clock that day, on November 9th, when finally somebody

1 said, "You guys are going to go to the fire camp that is
2 established in Chico at the Silver Dollar Fair; we are
3 just waiting for sources because we cannot let you go
4 until the other resources come and take your place." So
5 we probably waited maybe another hour before the
6 resources arrived and to give us a break so we could go
7 back to Chico.

8 Q. So that was around 1:00 p.m. when you finally
9 got to start --

10 A. I believe so.

11 Q. And then how long of a break did you have
12 before you went back to the fire?

13 A. That was only until 8:00 o'clock on the next
14 day, I believe probably November 10th. We returned to --
15 we went to Chico, we resupply our fire engines, one of
16 the number one priorities to have ready. We ate, we
17 provided ourselves with whatever needs. And then they
18 told us that we can go to some motel to spend the night
19 in there. And the next day we needed to be back by 6:00
20 o'clock in the morning.

21 So I remember we woke up probably about 5:00
22 o'clock or 4:00 o'clock to get ourselves ready and return
23 to the fire camp. And our next assignment was to go to
24 Paradise.

25 We were about eight fire engines who were on
26 the initial attack. And normally Cal Fire, when they

1 have fire engines, they are single increments of
2 equipment. After the first day of the initial attack,
3 they group them together to form a task force. So we
4 were a task force of eight fire engines that went to
5 Paradise. And our assignment was to assist every house,
6 every structure, that was destroyed by fire looking for
7 human remains.

8 Q. And so you spent your day in Paradise doing
9 that; is that correct?

10 A. Yes.

11 Q. And then when did you get to go back to the
12 fire camp?

13 A. The fire camp was rotation basically of about
14 24 hours.

15 Q. Work for 24 hours, then go back to camp for 16
16 hours?

17 A. Yes. What happens, the way it happens is we
18 start our day about 6:00 o'clock in the morning at the
19 fire camp, we get our assignments, we drive to our
20 assignments, we work in there so possibly until the next
21 day about 8:00 o'clock, our operational period. But due
22 to the resources, they have to be mobilized from the fire
23 camp to our location, so we can be relieved and then move
24 to the fire camp. Sometimes it can be 10:00 o'clock.
25 The time varies, depending on the resources availability.

26 Q. So was that basically the routine until the

1 fire was under control?

2 A. Yes. Not only on the initial attack, there is
3 a lot of, not surprising, that the resources can work for
4 48 hours or 72 hours without going to the fire camp due
5 to the fire, but also available resources coming to
6 assist us, and how fast we can establish our fire camp.
7 If everything works according to plan, then our time on
8 the initial attack on the fire can be reduced and it can
9 be 24 hours or 36 hours, 48 hours. But once they've,
10 once everything is established, then we try to go on a
11 24-hour clock. We go from 6:00 o'clock in the morning
12 until 8:00 or 10:00 o'clock the next day. And it becomes
13 a routine.

14 Q. Then you did that until --

15 A. And I did that all the way, I believe, until
16 November 22nd, whenever the fire was declared controlled.
17 I believe it started right in on that day. We were
18 assigned -- by that time, we were assigned in an area
19 closer to the Pulga area and the Jarbo Gap area.

20 Q. So your seven days on turned out to be a lot
21 longer?

22 A. Yes. And I had vacation during that time, but
23 I had to -- a cruise to go to the Mexican Riviera, but I
24 couldn't go and leave my people behind.

25 Q. Right.

26 Do you have anything else?

1 MR. NOEL: No.
2 MS. DUPRE-TOKOS: Do any of the jurors have
3 questions?

4 Thank you.

5 (Counsel confer.)

6 Q. (By MS. DUPRE-TOKOS) So, Captain, for the
7 entire duration of the fire that you worked, how many
8 people do you think that you and your firefighters
9 rescued and how many did you find that you could not
10 rescue?

11 A. I believe probably, probably about seven or
12 eight that we were able to rescue. I do not know --
13 there were a lot of people we couldn't rescue, but I
14 don't know how many.

15 Q. Okay.

16 Any other questions?

17 All right. Well, thank you very much.

18 THE WITNESS: You're welcome.

19 MR. NOEL: Madam Foreperson will have an
20 admonition for you.

21 GRAND JURY FOREPERSON: Captain Ascencio, you
22 are admonished not to discuss or disclose at any time
23 outside of this jury room the questions that have been
24 asked of you or your answers until authorized by the
25 Grand Jury or the Court. A violation of these
26 instructions on your part may be the basis for a charge

1 against you of contempt of court. This does not preclude
2 you from discussing your legal rights with your own
3 attorney.

4 Captain Ascencio, what I have just said is a
5 warning not to discuss this case with anyone except the
6 Court, your lawyer, or the district attorney. Do you
7 have any questions?

8 THE WITNESS: No, and I understand. Thank you.

9 GRAND JURY FOREPERSON: Thank you. Thank you
10 for your time today.

11 THE WITNESS: You're welcome.

12 GRAND JURY FOREPERSON: And for your service.

13 THE WITNESS: Thank you.

14 [DISCUSSION OMITTED.]

15 (Lunch break.)

16 [ROLL CALL OMITTED.]

17 [DISCUSSION OMITTED.]

18 GRAND JURY FOREPERSON: Okay. Lieutenant
19 Barkley, would you mind standing, raising your right hand
20 to be sworn?

21

22 LIEUTENANT JASON BARKLEY

23 having been called as a witness in
24 the matter now pending, having been first
25 duly sworn, testifies as follows:
26

1 THE WITNESS: I do.

2 GRAND JURY FOREPERSON: Thank you. Have a
3 seat.

4 MR. NOEL: And not to prejudice any of you guys
5 against him, but Lieutenant Barkley is in charge of
6 building all our PowerPoints and stuff. I couldn't
7 resist.

8
9 EXAMINATION

10
11 BY MS. DUPRE-TOKOS

12 Q. Could you state and spell your name for the
13 record, please.

14 A. My name is Jason Barkley, J-A-S-O-N
15 B-A-R-K-L-E-Y.

16 Q. And where are you employed and in what
17 capacity?

18 A. I'm employed with the Butte County District
19 Attorney Office as an investigative lieutenant.

20 Q. And how long have you been a sworn law
21 enforcement officer?

22 A. It will be 20 years in April.

23 Q. How long have you been with the DA's office?

24 A. I believe eight years; since 2011.

25 Q. And you said that you're a lieutenant?

26 A. Yes, ma'am.

1 Q. How long have you been a lieutenant?

2 A. I took over as lieutenant on 11/4 of 2018.

3 Q. You're the second person today who got a
4 promotion and started on 11/4/2018. Bad day.

5 Prior to being a lieutenant in the DA with the
6 DA investigators, what was your title?

7 A. Investigator.

8 Q. And how long were you an investigator?

9 A. Seven years.

10 Q. Prior to joining the DA's office, what did you
11 do?

12 A. Just prior to the DA's office, I was a
13 detective with the Oroville Police Department. I started
14 that in 2003. Prior to that, I was a patrol officer for
15 Oroville Police Department, which I started in April
16 2000.

17 Q. And is that the extent of your law enforcement
18 experience?

19 A. Yes, ma'am.

20 Q. Now, were you assigned to assist with the Camp
21 Fire?

22 A. Yes.

23 Q. And in what capacity were you assigned to
24 assist with that initially?

25 A. Initially as a First Responder.

26 Q. And as First Responder, what did you do?

1 A. Responded to Paradise and conducted evacuations
2 initially. Basically made sure all of my people were in
3 the places they were supposed to be for the rest of the
4 day and that they were safe.

5 Q. And how long did the First Responder duties
6 last before they transitioned to something else?

7 A. It's difficult to say. We started searching on
8 11/9, but there was kind of First Responder stuff
9 happening.

10 Q. Okay. And before we go into what the searching
11 entails, are you familiar with the burn area of the Camp
12 Fire?

13 A. Yes.

14 Q. And did you put together a map that shows that
15 burn area?

16 A. Yes.

17 Q. And on that map did you put in all of the
18 addresses of where people who died were found?

19 A. I think it's more accurate to say "locations"
20 where people were found. Some people weren't found at
21 addresses.

22 Q. And looking at the screen behind you, is that
23 the map that you put together?

24 A. Yes, ma'am.

25 Q. And are all of these addresses within the burn
26 zone?

1 A. Yes.

2 Q. Just going very quickly through the people that
3 you found, could you show us where? And you might have
4 to come over to the computer.

5 Or is that touch screen?

6 MR. NOEL: It's touch screen. And we probably
7 need to mark this 769.

8

9 (Grand Jury Exhibit 769 introduced for identification.)

10

11 MS. DUPRE-TOKOS: Okay. We'll do that. I'll
12 have to print it out.

13 THE WITNESS: So is this a Smart TV?

14 MR. NOEL: Yes, it is.

15 THE WITNESS: And you are pushing this to the
16 Smart TV from there?

17 MR. NOEL: Yes.

18 THE WITNESS: This is not a touch screen then.

19 MR. NOEL: Usually it is. We touch it. You
20 can have my laptop to do whatever you want.

21 THE WITNESS: Take up there?

22 MR. NOEL: Take it up there, do however you
23 want.

24 (Discussion off the record.)

25 Q. (By MS. DUPRE-TOKOS) Okay. Did you find
26 remains at 1909 Dean Road?

1 A. I did.

2 Q. Is that -- do you need to know the name or the
3 address for --

4 A. The name would be Forrest Rhea, 1909, I think
5 that was 1819530.

6 Q. Yes.

7 A. I apologize, these folks aren't in any specific
8 order, so I have to search. There we go.

9 Q. Okay. So that's 1909 Dean Road?

10 A. Yes, ma'am.

11 Q. And what about Teresa Ammons, 6674 Pentz Road?
12 19598.

13 A. I remember Teresa.

14 Q. Okay. So that's 6674 Pentz Road?

15 A. Yes, No. 112.

16 Q. And then 6290 Clark Road, John Digby?

17 A. Mr. Digby kept getting deleted, so he's out of
18 order.

19 Q. That's 6290 Clark Road?

20 A. Yes, space No. 3.

21 Q. Then 5326 Sawmill Road, Carol Tracy, 669? I'm
22 sorry, Joan Tracy.

23 A. Yes, ma'am.

24 Q. That's 5326 Sawmill Road?

25 A. Yes.

26 Q. 1378 Nb Lane, the Browns?

1 A. Larry and Cheryl.

2 Q. So 1378 Nb Lane; correct?

3 A. Yes.

4 Q. So you said that you went out and found
5 remains?

6 A. Yes.

7 Q. Was that as part of a team?

8 A. Yes.

9 Q. So how did that work?

10 A. It worked several different ways. It kind of
11 changed throughout the process. The first day,
12 Lieutenant Angel and I were paired up sort of doing First
13 Responder detail, and we started hearing investigators
14 being called for specific addresses. So we called one of
15 the detective sergeants, said, "Hey, what's going on?"
16 And it was that they were finding bodies at those
17 locations. So we were in the area of Dean Road and we
18 responded to the 1909 Dean Road.

19 Q. Then after that first day, how did people end
20 up, how did you end up at different places?

21 A. So the following couple days we responded to
22 areas that had missing people. There was thousands of
23 missing persons reports, and we would get sheets with
24 hundreds of addresses on them as part of a team, and we
25 would go to each address and search through with whether
26 it be a house or mobile home park, whatever.

1 Q. And did that change again after that?

2 A. Yes.

3 Q. Okay. How did it change?

4 A. Eventually some anthropologist teams came along

5 with search and rescue units, with cadaver dogs from

6 multiple agencies. And those of us who had some death

7 experience were assigned to coroner's unit, which is what

8 I was doing. And I would go with other coroners from

9 different agencies, and we would respond to locations

10 where anthropologists or search and rescue found remains.

11 Q. Was that the final way that --

12 A. Yes.

13 Q. -- that worked, essentially?

14 A. Yes.

15 Q. So you said that you went to 1909 Dean Road.

16 And that's in Paradise?

17 A. Yes.

18 Q. And so -- and, again, all the addresses you

19 just showed us are within the burn zone; correct?

20 A. Yes.

21 Q. And you said that you went to 1909 Dean Road on

22 the 9th?

23 A. Yes.

24 Q. And how did you know to go to that residence?

25 Was that one of the ones where people called or --

26 A. As you can imagine, there was a lot of radio

1 traffic going on. And as units are asking for
2 investigators at specific addresses, we started to
3 wonder, why is that happening? Communication wasn't all
4 that great in the beginning. So we contacted a detective
5 sergeant to find out, what do you need investigators for,
6 is this something that we can help with? Then we learned
7 that they were finding believed-to-be dead bodies at
8 these residences. And so when we heard 1909 Dean Road,
9 we happened to be right around the corner, so we
10 responded.

11 Q. And was a case number assigned to that --

12 A. Yes.

13 Q. -- address or?

14 And did you find human remains there?

15 A. Yes.

16 Q. Or did someone on the team?

17 A. It was just Lieutenant Angel and I. And, yes,
18 we found remains.

19 Q. And you said a case number was assigned. Do
20 you recall that case number?

21 A. I believe it was 1819530.

22 Q. Okay. And how are the case numbers assigned?

23 A. The sheriff's department has a report writing
24 system, and they assign case numbers.

25 Q. So do you just call in and they give you a
26 number --

1 A. Yes.

2 Q. -- eventually?

3 A. Yes. Sometimes it wasn't quite as easy as
4 that, but yes.

5 Q. Okay. And were other case numbers also being
6 assigned at the same time?

7 A. Yes.

8 Q. So you said -- may we have the computer back?

9 A. Sure.

10 MR. NOEL: Before we get away from the map --
11 let's back this off. Can you explain what we're looking
12 at there on the map?

13 THE WITNESS: Well, each arrow is the
14 approximate, sometimes exact, location of a decedent that
15 was found by someone on the teams.

16 MR. NOEL: And how did you chart those
17 locations? Where did you get the information?

18 THE WITNESS: When you -- I apologize. It's
19 going to take a minute to explain.

20 So the first reports that are taken are
21 original coroner's reports that are faced page. Often
22 when you're taking the coroner's report, you know exactly
23 where you're standing because the street signs are still
24 present or because you can see numbers laying in the road
25 or whatever. Sometimes they don't know where they're at.
26 So they're using GPS coordinates. Aren't always as exact

1 as we think they are.

2 So part of it is from the initial coroner's
3 face pages. Sometimes it is the final coroner's report
4 that indicates further information. There's -- an
5 example would be Richard Brown. He was listed at 11000
6 block of Hoffman. But because everything was burned,
7 they didn't know where they really were, and they were
8 actually on Eleran, which is a road that's just off
9 Hoffman, and there's lots of twists and turns. But we
10 don't know that until we read every bit of the
11 documentation.

12 Does that answer your question?

13 MR. NOEL: Right. Basically you reviewed the
14 coroner's reports.

15 THE WITNESS: Sometimes the autopsy, sometimes
16 -- to get this information.

17 MR. NOEL: And used the information from there
18 to chart this?

19 THE WITNESS: Yes.

20 MR. NOEL: And then you were clicking on
21 arrows, so if you'd explain to us what's on the left side
22 of the screen on the list and how the arrows work and
23 clicking on them.

24 THE WITNESS: So you'll see there's a search
25 engine at the top, up at the top left. I put an address
26 or a basic location or GPS coordinates there. And then

1 either from photographs or my own personal knowledge, I
2 looked in the area and find the exact location that I
3 know the body was. I drag one of these markers into that
4 location and explain who the person was, what the
5 address, the GPS coordinate, how many people were found,
6 and the case number. And you can see that in here. So
7 anytime you click on one of these, that information
8 populates.

9 MR. NOEL: And we've saved that. And that will
10 be Exhibit 769.

11 Q. (By MS. DUPRE-TOKOS) Okay. So we've
12 essentially covered most of this, but -- so case number
13 1819530, you testified that was found in the fire zone.
14 And, to your knowledge, is that a photograph of Forrest
15 Rhea?

16 A. Yes.

17 Q. And, to your knowledge, are those the remains
18 of Forrest Rhea?

19 A. Yes.

20 Q. Okay. At this point, we're going to excuse you
21 and we'll have Investigator Oakley.

22 MR. NOEL: Hold on. She's got to give an
23 admonition.

24 GRAND JURY FOREPERSON: Lieutenant Barkley, you
25 are admonished not to discuss or disclose at any time
26 outside of this jury room the questions that have been

1 asked of you or your answers until authorized by this
2 Grand Jury or the Court. A violation of these
3 instructions on your part may be the basis for a charge
4 against you of contempt of court. This does not preclude
5 you from discussing your legal rights with your own
6 attorney.

7 Lieutenant Barkley, what I have just said is a
8 warning not to discuss this case with anyone except the
9 court, your lawyer, or the district attorney.

10 THE WITNESS: Yes, ma'am.

11 GRAND JURY FOREPERSON: Any questions?

12 THE WITNESS: No, ma'am.

13 GRAND JURY FOREPERSON: Okay. Thank you.

14
15 INVESTIGATOR CHRIS OAKLEY
16 having been called as a witness in
17 the matter now pending, having been first
18 duly sworn, testifies as follows:

19
20 THE WITNESS: I do.

21 GRAND JURY FOREPERSON: Thank you. Have a
22 seat, please.

23 THE WITNESS: Thank you.

24
25 EXAMINATION
26

1 BY MS. DUPRE-TOKOS

2 Q. Could you state and spell your name for us for
3 the record?

4 A. Christopher Oakley, O-A-K-L-E-Y.

5 Q. Where are you employed and in what capacity?

6 A. I am a criminal investigator assigned to the
7 Homicide Unit at the Butte County District Attorney's
8 Office.

9 Q. How long have you been at the Butte County
10 District Attorney's Office?

11 A. About a year and a half.

12 Q. Did you have a previous assignment at the Butte
13 County DA's office?

14 A. I did. I was in Child Abduction for about six
15 months.

16 Q. And prior to joining the Butte County DA's
17 office, where did you work?

18 A. Prior to that I was at the Sutter County
19 District Attorney's Office as an investigator for a
20 little over a year and a half, and then at Yuba City
21 Police Department for about nine years.

22 Q. And do you have any other law enforcement
23 experience prior to that?

24 A. No.

25 Q. And were you assigned to assist with the Camp
26 Fire?

1 A. I was.

2 Q. And in what capacity were you assigned to
3 assist?

4 A. Initially, it was the rescue efforts and
5 patrolling for the citizens as far as evacuation goes,
6 and then our follow-up then was recovery efforts to
7 assist with coroner's cases.

8 Q. And did you do that as part of a team, the
9 assisting with the coroner's cases?

10 A. I did.

11 Q. And were you, was that team generally called to
12 a certain location?

13 A. Yes.

14 Q. And were you on a team that was tasked with
15 recovering human remains on November 10th, 2018?

16 A. Yes.

17 Q. And were you dispatched, for lack of a better
18 word, to 750 Meyers Lane in Paradise?

19 A. I was.

20 Q. And human remains located at that site?

21 A. Yes.

22 Q. And was a case number assigned to those
23 remains?

24 A. Yes.

25 Q. Do you happen to recall what the case number
26 is?

1 A. I believe it was 18, dash, 19542.

2 Q. And where were the remains at 750 Meyers Lane
3 located?

4 A. They were in the, in the basement of what was
5 left standing of the structure of the residence.

6 Q. So the residence wasn't fully destroyed?

7 A. Mostly, yes. It appeared to have a basement
8 area. Then the only thing left standing was the chimney,
9 the brick chimney, that was left. Everything else was
10 destroyed and burned.

11 Q. And could you just, very briefly, describe the
12 remains for us.

13 A. Yes. The remains appeared to be a female that
14 were still intact. The female's body was laying outside
15 of the threshold of the door to the basement, which
16 appeared to be like cement or cinder block walls. Her
17 body was facing face down. She still had her hair
18 intact, but you could see that she had severe redness
19 from both burns and apparent smoke inhalation. Still
20 clothed, but clothes appeared to be burned in certain
21 areas as well.

22
23 (Grand Jury Exhibit 762A introduced for identification.)
24

25 Q. And you have some exhibits on the table in
26 front of you. So there should be one marked 762A?

1 A. Yes.

2 Q. Okay. Is that the photograph that's on the
3 slide? There's a slide that's on -- the photograph
4 that's on the screen?

5 A. No, I have 762.

6 Q. That's 762 not, 762A?

7 A. I do not see this photograph in front of me. I
8 have that photograph in front of me.

9 Q. Okay. What's on the other side of that?

10 A. Okay.

11 Q. No, backside.

12 A. 762A is right here. So I'll move to 762A, and
13 that is what is on the screen that you see here.

14 Q. Are those the remains that you found of the
15 body that you found, or were part of team that located?

16 A. Yes.

17 Q. Okay. And that coincides with the case number
18 that you gave us, the 19542?

19 A. Yes.

20 Q. And then at any point did you receive
21 information that led you to believe that those remains
22 were those of someone by the name of Lolene Rios?

23 A. Yes.

24 Q. And have you ever seen a photograph of
25 Ms. Rios?

26 A. Yes.

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(Grand Jury Exhibit 762 introduced for identification.)

Q. And so going back to 762, does that appear to be a photograph of Ms. Lolene Rios?

A. It is.

Q. And then were you also -- well, and then once you found the body of Ms. Rios, what procedure was undertaken to remove her body?

A. So initially we, it was still unsafe to enter the residence because it was still so hot and the structure was still falling apart that we couldn't initially get into where Ms. Rios's body was. So deputies from the Butte County Sheriff's Office remained on scene as part of their recovery unit. The process for that was to take the body, photograph it, place it into a body bag, then take the body down to the Openshaw Road sheriff's facility where we were directed that all the remains and bodies would go for further processing to a pathologist.

Q. And then were you also on a team that was tasked with recovering human remains on November 12th, 2018?

A. I was.

Q. And did you go to 432 Plantation Drive in Paradise?

1 A. Yes.

2 Q. And were you dispatched to that? Or how did
3 you know to go there?

4 A. I was dispatched to that regarding a missing
5 persons, I believe, report that still was not closed out.
6 So usually a family member or somebody is calling in
7 saying that my family is still not recovered yet or has
8 not contacted me. And so we would be dispatched as a
9 team to go back out and search for the people at that
10 address if there are possibly any remains. So that's how
11 we ended up going there.

12 Q. At some point did you get information that --
13 well, how many people were missing from 432 plantation?

14 A. Two that I know of.

15 Q. And at some point did you learn the names of
16 the people who resided at that address?

17 A. Yes.

18 Q. And at some point did you find out that that
19 was Joanne and John Malarkey?

20 A. I did.

21 Q. And did you ever see a photograph Joanne and
22 John Malarkey?

23 A. I did.

24

25 (Grand Jury Exhibit 763 introduced for identification.)

26

1 Q. And you should have in front of you Exhibit
2 763?

3 A. I do.

4 Q. Do you see that?

5 Is that a photograph of Joanne and John
6 Malarkey, and is that the same photograph that's on the
7 screen?

8 A. It is.

9 Q. So when you went to 432 Plantation Drive, was
10 the residence intact?

11 A. No.

12

13 (Grand Jury Exhibit 764 introduced for identification.)

14

15 Q. And on the screen -- and I did not label them,
16 and I will submit a corrected PowerPoint -- but in front
17 of you you show 764, it should match the photograph on
18 the screen?

19 A. That's correct.

20 Q. And is that what the house looked like at 432
21 Plantation?

22 A. It did.

23 Q. And how many remains did you locate in that
24 residence?

25 A. Two, two separate remains.

26 Q. And where were they found?

1 A. The first set of remains was located right
2 inside. So this is a picture -- I'm sorry, can you go
3 back to 764?

4 Okay. So this would be looking from, standing
5 near the front porch looking towards the front of the
6 house.

7 Q. You can stand up --

8 A. Okay.

9 Q. -- if you want to.

10 A. Yeah. So this would be looking at the -- if
11 you're standing right on edge of like a threshold of
12 where to the front door of the residence would be over in
13 this area right here, and this would be looking back like
14 towards the front of the residence if you were standing
15 at the front wall of the residence.

16 Q. Okay.

17 A. So to answer your question further, one of the
18 sets of remains, first set, was found over just near the
19 front door of the residence. So to the right, like in
20 this area here.

21 Q. And where was the second set of remains
22 located?

23 A. The second set of remains would have been found
24 back in this area over here near a stove. So appeared to
25 be a kitchen area of the residence.

26

1 (Grand Jury Exhibit 765 introduced for identification.)

2

3 Q. So this should be 765.

4 A. Okay. I have that. So go ahead.

5 Q. And are there any of the remains that were
6 located at 432 Plantation depicted in this photograph?

7 A. Yes, it's just very difficult to see because
8 it's zoomed out. But the remains that you can see are
9 going to be generally in this area right here.

10 Q. Is it the darker in that area?

11 A. Yes. And as you zoom in, you'll be able to see
12 some of the skeletal, so you can see some human bone
13 here, then charred human remains. And that is -- once
14 the anthropology team was able to pull the debris off of
15 it, we recovered more of what appeared to be a charred
16 human body.

17 Q. Down at the bottom, I don't know what that is,
18 but it's fairly distinctive looking. The dish or
19 something with the pattern or design on it? And then can
20 you see it in that zoomed-out picture as well?

21 A. Yes, right down here.

22 Q. So that's just zoomed in of the area where you
23 indicated the area where the remains were found?

24 A. Correct.

25

26 (Grand Jury Exhibit 766 introduced for identification.)

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Q. And does that photograph match Exhibit 766?
Should be front of you?

A. It does.

Q. Now, you said that there were remains found by
the front door?

A. Yes.

(Grand Jury Exhibit 767 introduced for identification.)

Q. And looking at Exhibit 767, which is also up on
the screen, does that show human remains in that
photograph?

A. Yes. Again, because it's zoomed out, very
difficult to see, but if you look in this area here. I'm
assuming you'll have an exhibit that's zoomed in a little
further. And that does match the one that I have, 767.

Q. And I don't have one that's zoomed in much
more.

MR. NOEL: This is just like ours that we have
in the office.

THE WITNESS: Anyways, in here you can see some
dark, charred remains. As you get closer, you can
actually see what the shape of, like if you're familiar
with any body parts, but like a liver or organ. And then
initially what caught my attention with the body is the

1 rib bones. You can see portions of the rib bones. And
2 then as I looked a little bit further, I could actually
3 see the top teeth of the jaw line of the skull. And
4 that's the front door that was melted down, bent over.

5 Q. (By MS. DUPRE-TOKOS) And then up in the
6 photograph, above that door, you see that structure that
7 sort of looks like a chair?

8 A. Yes.

9 Q. And were you able to determine what that was?

10 A. This appeared to be a chair to me. But I
11 wasn't actually -- I'm getting confused. This appeared
12 to be some type of railing, but it did appear on scene
13 that there was a walker that was associated, like
14 assisting for the elderly.

15
16 (Grand Jury Exhibit 768 introduced for identification.)
17

18 Q. And looking at Exhibit 768, could you tell us
19 what that's a photograph of?

20 A. Yeah, that is burned PT Cruiser Chrysler.

21 Q. And where was that located?

22 A. That was located in the driveway 432 Plantation
23 Drive.

24 Q. Now, at any point were you able to find out
25 information as to who the owner of that PT Cruiser was?

26 A. So the -- yes. The VIN number was melted off

1 of that, so we couldn't get the VIN from that, which is a
2 Vehicle Identification Number that's stored in the DMV
3 database. Then, obviously, there's no license plates
4 left either, because those are burned.

5 So do you want me to explain that process?

6 Q. Yes, please.

7 A. So the DMV database is, as people know,
8 contains the registered owner's information, license
9 plate, year, make, model of vehicle, and Vehicle
10 Identification Number. We have tools that are available
11 to us in law enforcement through the California Law
12 Enforcement Telecommunications System which allows me to,
13 or any peace officer, dispatcher, to take someone's name
14 and run what we call "reverse license plate check" or
15 "vehicle registration check."

16 So what I later did is I ran the Malarkey's
17 name, John Malarkey specifically, to see what vehicles he
18 had registered to him. And when I did that, DMV showed a
19 result of a 2002 Chrysler registered to John and Joanne
20 Delores Malarkey at 432 Plantation Drive in Paradise.

21 Q. So that database, you said that's maintained by
22 the DMV?

23 A. Correct.

24 Q. So it's a government database?

25 A. Yes, it is.

26 Q. And I think I may have asked you this, but at

1 some point did you receive information that led you to
2 believe that the remains that you found at 432 Plantation
3 were those of Joanne and John Malarkey?

4 A. I did.

5 Q. And were the standard procedures followed with
6 removing the remains from that residence?

7 A. Correct. I actually hand-delivered these
8 remains myself and my team to Openshaw instead of relying
9 on the sheriff's office on this one.

10 MS. DUPRE-TOKOS: Do any of the jurors have any
11 questions?

12 (Counsel confer.)

13 Q. (By MS. DUPRE-TOKOS) So how did you know the
14 remains were John and Joanne Malarkey?

15 A. One was, again, confirming that the registered
16 owners' information through DMV likely being their
17 remains would be there. They were the two people that
18 were registered to a Chrysler at that address. The other
19 one was through dental records. So the dental records
20 confirmed the identity of both John and Joanne Malarkey.

21 MS. DUPRE-TOKOS: Any other questions?

22 No.

23 Okay. Thank you very much.

24 THE WITNESS: Thank you.

25 MR. NOEL: She has an admonition for you.

26 GRAND JURY FOREPERSON: Mr. Oakley, you are

1 admonished not to discuss or disclose at any time outside
2 of this jury room the questions that have been asked of
3 you or your questions until authorized by the Grand Jury
4 or the Court. A violation of these instructions on your
5 part may be the basis for a charge against you of
6 contempt of court. This does not preclude you from
7 discussing your legal rights with your own attorney.

8 Mr. Oakley, what I have just said is a warning
9 not to discuss this case with anyone except the Court,
10 your lawyer, or the district attorney. Do you have any
11 questions?

12 THE WITNESS: Nope. I understand.

13 GRAND JURY FOREPERSON: Thank you for your
14 time.

15 THE WITNESS: Thank you.

16 [DISCUSSION OMITTED.]

17 (Break taken.)

18 GRAND JURY FOREPERSON: Yes. All members of
19 the Grand Jury are present.

20

21 LIEUTENANT JASON BARKLEY, Cont'd
22 having been called as a witness in
23 the matter now pending, having been first
24 duly sworn, testifies as follows:

25

26 GRAND JURY FOREPERSON: Mr. Barkley, I'd like

1 to remind you that you are still under oath.

2 THE WITNESS: Yes, ma'am.

3 GRAND JURY FOREPERSON: Have a seat, please.

4 THE WITNESS: Thank you.

5 GRAND JURY FOREPERSON: We're ready to proceed.

6

7 EXAMINATION Cont'd

8

9 BY MS. DUPRE-TOKOS

10 Q. So, Lieutenant Barkley, I'm going to
11 backtrack just a bit to make sure we've covered
12 everything.

13 So you have exhibits in front of you?

14 A. Yes, ma'am.

15

16 (Grand Jury Exhibit 736 introduced for identification.)

17

18 Q. And looking at Exhibit 736?

19 A. Yes.

20 Q. Is that the same photograph that's on the
21 slide?

22 A. Yes, ma'am.

23 Q. And, to your knowledge, is that a photograph of
24 Forrest Rhea?

25 A. Yes.

26

1 (Grand Jury Exhibit 737 introduced for identification.)

2

3 Q. And then looking at Exhibit 737, is that the
4 photograph that's on the screen?

5 A. Yes, ma'am.

6 Q. And are those the remains that you located of
7 Forrest Rhea?

8 A. Yes.

9 Q. Now, you testified that you went to 6674 Pentz
10 Road, space 112?

11 A. Yes, ma'am.

12 Q. That was for case number 19598?

13 A. Yes.

14 Q. And at some point did you receive information
15 to lead you to believe that Teresa Ammons lived at that
16 address?

17 A. Yes.

18

19 (Grand Jury Exhibit 738 introduced for identification.)

20

21 Q. And looking at Exhibit 738, is that the same
22 photograph that's up on the screen?

23 A. Yes, ma'am.

24 Q. To your knowledge, is that a photograph of
25 Teresa Ammons?

26 A. Yes.

1 Q. Now, is 6674 Pentz Road, is that a trailer
2 park?

3 A. Yes.

4 Q. So everything, all the units in there, have
5 their own numbers?

6 A. Yes.

7 Q. And you said you went to unit 112?

8 A. Yes.

9 Q. And how did you know that you were at unit 112?

10 A. Well, a few ways. One, you see the 1 and the 2
11 that was on the ground outside of the address.

12

13 (Grand Jury Exhibit 739 introduced for identification.)

14

15 Q. And that's Exhibit 739?

16 A. Yes. I think you have other pictures.

17 We also found a -- I saw what I believed to be
18 a wallet sitting out in front of the trailer. "Out in
19 front" isn't exactly correct, but up the walkway. And
20 when I turned the wallet over, I saw a Social Security
21 card. So, I was concerned that someone's identity would
22 be stolen because there was people riding on quads and
23 motorcycles and stuff, so I had my team collect so that
24 the identity wouldn't be stolen.

25

26 (Grand Jury Exhibit 740 introduced for identification.)

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Q. Okay. And we do have photographs, so we'll look at those.

But looking at Exhibit 740, is that what's on the screen?

A. Yes.

Q. And is that the remains of the residence at 6674 Pentz Road, number 112?

A. Yes. Yes.

Q. And do you see the people down at the far end, and there's bush there?

A. I do.

(Grand Jury Exhibit 741 introduced for identification.)

Q. Looking at Exhibit 741, is that what's on the screen now?

A. Yes.

Q. So is that a photograph from the other end?

A. Yes.

Q. And is that the bush that we could see in the last photograph?

A. Yes.

Q. Is there anything noteworthy in this picture?

A. Yes.

Q. Is there more than one noteworthy thing in this

1 picture?

2 A. Yes.

3 Q. Okay. Why don't you tell us what's noteworthy.

4 A. Can I get up?

5 Q. Absolutely.

6 A. Right here we have started to collect what we
7 later learned to be the contents of a purse. I initially
8 thought it was a wallet, but we can tell from what was
9 there, it was a purse, which contained Social Security
10 cards and other things.

11 Ms. Ammons is right here.

12 Q. That's the dark object just to the left of the
13 bush?

14 A. Yes.

15

16 (Grand Jury Exhibit 742 introduced for identification.)

17

18 Q. And then looking at 740 -- Exhibit 742, is that
19 the Social Security card that you mentioned?

20 A. Yes.

21

22 (Grand Jury Exhibit 743 introduced for identification.)

23

24 Q. Looking at Exhibit 743, can you tell us what
25 that's of.

26 A. Yes. That is, out on the Pentz side of the

1 road, it is the mailboxes for those two rows of trailers.

2

3 (Grand Jury Exhibit 744 introduced for identification.)

4

5 Q. And looking at Exhibit 744, can you tell us
6 what we're looking at.

7 A. Yes. It is a -- well, the important part is it
8 is the mailbox of Ms. Ammons, which was consistent with
9 the Social Security Card we found.

10 Q. And does the mailbox say what's space number?

11 A. Yes.

12 Q. What space number?

13 A. 112.

14

15 (Grand Jury Exhibit 745 introduced for identification.)

16

17 Q. And looking at Exhibit 745, can you tell us
18 what that is.

19 A. Yes. When we opened the mailbox, we found this
20 notation from the postal service saying deliver the mail
21 to the door, with the name and the address.

22 Q. And you testified when you showed us the map
23 that you also went to 6290 Clark Road, No. 3, in
24 Paradise?

25 A. Yes.

26 Q. Oh, and just stepping back, were the same

1 collection, essentially standardized collection
2 procedures, used with regards to recovering the remains
3 of Ms. Ammons?

4 A. Yes.

5 Q. And do you recall what date you went to 6920
6 Clark Road, No. 3?

7 A. Maybe the 12th, but I am not sure.

8 Q. Okay. Could it have been the 13th?

9 A. Yes.

10 Q. And at some point did you receive information
11 that led you to believe that the person who lived at that
12 residence was someone by the name of John Digby?

13 A. Yes.

14 Q. And does that -- well, when you went to 6920
15 Clark Road, No. 3, did you find remains?

16 A. Yes.

17 Q. And were those remains the assigned case -- or
18 do you remember what case number they were assigned?

19 A. They were assigned two case numbers, 1819643
20 and 644.

21 Q. Okay. Why were they assigned two case numbers?

22 A. The anthropologist on scene believed there were
23 two sets of remains.

24 Q. And so case numbers were assigned to both sets
25 of remains?

26 A. Yes.

1 Q. Okay. And, to your knowledge, did
2 anthropologists at some point determine that the remains
3 were only of one person?

4 A. Yes.

5 Q. So was one of the case numbers dropped or go
6 inactive?

7 A. Yes.

8 Q. Do you recall which number went inactive?

9 A. I don't.

10 Q. Okay.

11 A. I don't remember. I think it was -- 43 was the
12 first pulled, so we usually would stay with that.

13 Q. So then 19644 went inactive?

14 A. Yes.

15

16 (Grand Jury Exhibit 746 introduced for identification.)

17

18 Q. And then looking at Exhibit 746, and is that
19 what's up on the screen?

20 A. Yes.

21 Q. To your knowledge, is that a photograph of John
22 Digby?

23 A. Yes.

24

25 (Grand Jury Exhibit 747 introduced for identification.)

26

1 Q. Looking at Exhibit 747, is that what's on the
2 screen?

3 A. Yes.

4 Q. And can you tell us what that is?

5 A. It is a photograph of anthropologist units
6 collecting one of the sets of remains; and a single-wide
7 mobile home, the remains of a single-wide mobile home.

8 Q. And the mobile home appears to be completely
9 destroyed?

10 A. Oh, yes.

11

12 (Grand Jury Exhibit 748 introduced for identification.)

13

14 Q. And looking at Exhibit 748, which is up on the
15 screen, can you tell us what that is?

16 A. Yeah. It is what appears to be a chair, a
17 burned chair. And these, this area right here is human
18 remains.

19 Q. Okay. The darker area?

20 A. Yes.

21

22 (Grand Jury Exhibit 749 introduced for identification.)

23

24 Q. And 749, which is up on the screen, looks like
25 the remains of a license plate. Where was that found?

26 A. Parked in front of the trailer No. 3.

1 Q. And were the same standard procedures followed
2 for recovering the remains of Mr. Digby?

3 A. Yes.

4 Q. And then on November 14th were you again on a
5 recovery team tasked with locating human remains?

6 A. Yes.

7 Q. And did you go to a residence at 5326 Sawmill
8 Road in Paradise?

9 A. I did.

10

11 (Grand Jury Exhibit 750 introduced for identification.)

12

13 Q. Now, looking at Exhibit 750, which is up on the
14 screen, is it your understanding that that is a
15 photograph of Joan Tracy?

16 A. Yes.

17 Q. And at some point did you receive information
18 that led you to believe that Joan Tracy lived at 5326
19 Sawmill?

20 A. Yes.

21 Q. Her remains were recovered from that residence?

22 A. Yes.

23 Q. So human remains were located there?

24 A. Yes.

25 Q. Was a case number assigned to those remains?

26 A. Yes.

1 Q. Was that case number 1819669?
2 A. Yes.
3 Q. Looking at Exhibit 751 -- going back to Exhibit
4 750, could you tell us which of the two people in the
5 photograph is, to your knowledge, Joan Tracy?
6 A. The person without the glasses.
7 Q. Looking at it from here, would be the woman on
8 the left with the white hair?
9 A. Yes.
10
11 (Grand Jury Exhibit 751 introduced for identification.)
12
13 Q. So looking at Exhibit 751, that's up on the
14 screen, could you tell us what that is.
15 A. Yes. It's the burned remains of 5326 Sawmill.
16 You can see the anthropologist group standing right there
17 sifting. And that's a fireplace.
18
19 (Grand Jury Exhibit 752 introduced for identification.)
20
21 Q. Looking at Exhibit 752, which is on the screen,
22 what is that?
23 A. Well, had I known that picture was being taken,
24 I would have moved, but that's the anthropologist team
25 collecting the body.
26 Q. Is that you watching?

1 A. Yes, ma'am.

2 Q. And where were Ms. Tracy's remains located?

3 A. It appears as though --

4 Q. Do you want me to go back?

5 A. Well, it looks like the basement. The house is

6 on a hill, so maybe a basement isn't the right word, but

7 there's this slack space underneath the house, and

8 everything crumbled down into that spot. From my memory,

9 this was the ground floor and there was a cup with her

10 name on it.

11 Q. Which is coming up.

12 A. So she's fallen down into this.

13 Q. So was there -- to your recollection, was there

14 anything indicated where she had been prior to the floor

15 collapsing, if you recall?

16 A. Are you asking about the glass?

17 Q. No.

18 A. Inside the house.

19

20 (Grand Jury Exhibit 753 introduced for identification.)

21

22 Q. Okay. And looking at Exhibit 753, which is up

23 on the screen, can you tell us what this is.

24 A. Yes. That -- some of the remains are here, but

25 I remember them coming back further. Not so much in that

26 area, but more here. But that is part of it.

1 Q. So they were spread out?

2 A. Yeah.

3

4 (Grand Jury Exhibit 754 introduced for identification.)

5

6 Q. And in looking at Exhibit 754, which is on the
7 screen, is that the mug that you mentioned earlier?

8 A. Yes.

9 Q. Does it have a name on it?

10 A. Yes.

11 Q. What is the name that is on it?

12 A. Joan.

13 Q. Now, did you have occasion to check the mailbox
14 when you were at that residence?

15 A. I did.

16

17 (Grand Jury Exhibit 755 introduced for identification.)

18

19 Q. And looking at Exhibit 755, which is on the
20 screen, can you tell us what that is.

21 A. It is a newspaper, and I forget the name of the
22 newspaper now, and a -- looks like a natural gas envelope
23 or bill with the name Joan Tracy and address 5326 Sawmill
24 Road.

25 Q. Was that found in the mailbox?

26 A. It was.

1 Q. So the mailbox didn't burn?

2 A. No.

3 Q. Now, also on November 14th, 2018, did you also

4 go to a residence at 1378 Nb Lane in Paradise?

5 A. 87?

6 Q. 1378.

7 A. Yes.

8 Q. And was that, again, with the same team?

9 A. Yes.

10 Q. And at some point did you receive information

11 that led you to believe that Cheryl and Larry Brown lived

12 at that address?

13 A. Yes.

14

15 (Grand Jury Exhibit 756 introduced for identification.)

16

17 Q. And, to your knowledge, is -- looking at

18 Exhibit 756 -- is that a photograph of Cheryl Brown?

19 A. Yes.

20

21 (Grand Jury Exhibit 757 introduced for identification.)

22

23 Q. And looking at Exhibit 757, to your knowledge,

24 is that a photograph of Larry Brown?

25 A. Yes.

26 Q. And was that residence destroyed?

1 A. Yes.

2

3 (Grand Jury Exhibit 758 introduced for identification.)

4

5 Q. Looking at Exhibit 758, which is up on the
6 screen, can you tell us what that is a photograph of?

7 A. That's a photograph facing north of the
8 residence on Nb.

9

10 (Grand Jury Exhibit 759 introduced for identification.)

11

12 Q. And Exhibit 759, which is up on the screen, can
13 you tell us what that is.

14 A. It's the same residence, facing east.

15 Q. And are there, is there a team of
16 anthropologists?

17 A. Yes. There are anthropologists, and they're
18 collecting the remains of two people who are side by side
19 in like La-Z-Boy chairs.

20 Q. And that was going to be my next question.
21 Were remains found in that house?

22 A. Yes.

23 Q. And two sets of remains?

24 A. Yes.

25 Q. And have you received information that leads
26 you to believe that those remains were Larry and Cheryl

1 Brown?

2 A. Yes.

3 Q. And you just told us they were found side by
4 side in La-Z-Boy chairs?

5 A. Recliners, yes.

6

7 (Grand Jury Exhibit 760 introduced for identification.)

8

9 Q. Looking at Exhibit 760, can you tell us what
10 that is of. If you need to stand up, that's fine.

11 A. Yeah, this is a photograph of the general area
12 where both remains were found, kind of scattered on and
13 around both of those chairs.

14

15 (Grand Jury Exhibit 761 introduced for identification.)

16

17 Q. And then looking at 761, is that, can you tell
18 us what that is.

19 A. The same two chairs from a different angle you
20 can see there, and part of the remains here. This would
21 be the chair furthest to the south.

22 Q. And, Lieutenant Barkley, all the photographs
23 that we've shown you today, are those -- did you take
24 some of those?

25 A. I did.

26 Q. Did you take all of them?

1 A. No.

2 Q. To your knowledge, are they true and accurate
3 representations of what you saw on those days?

4 A. Yes, they are.

5 MS. DUPRE-TOKOS: And does the jury have any
6 questions?

7 Q. (By MS. DUPRE-TOKOS) And we're going to jump
8 back to Ms. Ammons.

9 So looking at Exhibit 741, is that the
10 photograph that's up on the screen?

11 A. Yes.

12 Q. So I want to go back over a few things. So you
13 mentioned that there was a person in this photograph, and
14 you also showed us where Ms. Ammons' body was located.
15 About how far apart were they in real life, as opposed to
16 trying to guess from the picture?

17 A. Ten or so feet.

18 Q. Is there anything in this photograph that
19 indicates to you that Ms. Ammons was alive at the time of
20 the fire occurred?

21 A. Yes.

22 Q. And what is that?

23 A. The front door of the residence was about here.
24 You can see that she had walked down and dropped her
25 purse. We didn't know it was a purse at first, but
26 dropped her purse. The fire was moving, roughly, east to

1 west. And appears to me as though she dropped the purse,
2 and turned, took a couple steps, was overtaken by the
3 fire.

4 Q. In looking at that picture, where is east and
5 where is west?

6 MR. NOEL: Do you want to use the drawing tool?

7 THE WITNESS: Two dimensional, so it's kind
8 of --

9 MR. NOEL: Right.

10 THE WITNESS: So that will be north.

11 Q. (By MS. DUPRE-TOKOS) Okay. So you've said the
12 fire was going east to west. So looking at this
13 photograph, it would be coming from left to right?

14 A. Yes.

15 Q. And her purse is on the left?

16 A. Yes.

17 Q. She's approximately ten feet to the right?

18 A. Yes.

19 Q. And you said that, based on your training and
20 experience, it appears that she was leaving, dropped her
21 purse, and tried to flee the fire, and was overtaken?

22 A. Yes.

23 Q. So let's dig a little deeper than the
24 photograph. Can you orient us with regards to
25 Ms. Ammons' body? For example, where are her feet in
26 that picture?

1 A. You want me to mark it?

2 Q. Sure.

3 MR. NOEL: Sure.

4 THE WITNESS: Those are the feet.

5 Q. (By MS. DUPRE-TOKOS) The two red circles?

6 A. Yeah. Here are the legs; come together at the

7 torso. Her head is back in here behind the bush. I

8 don't know if you want me to draw it, but she is on her

9 back. So face up. And if she had been standing, she

10 would have been facing east. It's difficult to show with

11 this picture. So she's right out in front of -- she

12 might be two feet from this.

13 Q. The side of her house?

14 A. Yeah. And I didn't see her until I stepped

15 right here looking for a serial number. You can see her

16 face. Well, you could see her skull.

17 Q. Is there anything noteworthy, kind of hard to

18 see in that picture, on the rock?

19 A. Uh-huh. Yeah. This was all over. There,

20 there, there, there, there.

21 Q. So the circles that you've just drawn that are

22 not the feet, not labeled "feet," what did you just

23 circle?

24 A. Molten aluminum that had sprayed out from the

25 residences onto the rocks. So had to be pretty hot, lots

26 of wind.

1 Q. And we can see Ms. Ammons' legs in this
2 photograph. What was the condition of her body?

3 A. Well, the majority of the flesh had been burned
4 off of her head. Her teeth were broken. So what I could
5 see was sockets. And her eyes were gone. There was
6 material in the eye sockets. Her upper torso had some
7 organs. They were charred. Her legs, the upper portion
8 of her legs, were charred, but there was still flesh.
9 And right about the knee on both legs you could still see
10 skin.

11 Q. Okay. So she was severely burned?

12 A. Yes.

13 Q. All right.

14 Did that give anyone else any other questions
15 before we get to the jury questions?

16 MR. NOEL: We'll save that as --

17 THE WITNESS: 741.

18 MR. NOEL: -- 741A.

19

20 (Grand Jury Exhibit 741A marked for identification.)

21

22 Q. (By MS. DUPRE-TOKOS) So why does Forrest Rhea
23 have ID number 18, dash, 19530 but the remains, but the
24 remains exhibited in 737 have ID number B 18, dash,
25 00022?

26 A. That's pretty perceptive.

1 So what's happening is the 1819 number is a
2 case number assigned by the Butte County Sheriff's
3 Department. So they have their own report writing system
4 and computer-aided dispatch system that generates case
5 numbers. All law enforcement agencies have that. These
6 bodies, I don't know if we've gotten that far, were taken
7 to Sacramento because of the large volume of bodies. So
8 that number right there is a number generated by the
9 Sacramento County Coroner's Office as to which autopsy it
10 is.

11 Q. Okay. Does that answer that?

12 And then how were you able to determine that
13 the remains of Joan Tracy were, in fact, her remains and
14 not those of the other person in the photo identifying
15 Joan?

16 A. Odontology is how she was identified.

17 GRAND JUROR #4: How?

18 MS. DUPRE-TOKOS: Odontology. Dental.

19 THE WITNESS: I did not do that, though.

20 MS. DUPRE-TOKOS: Then Marc has a question.

21 MR. NOEL: All right. The final question for
22 you: Spell "captain."

23 THE WITNESS: Did I spell it wrong? But I got
24 "lieutenant" right.

25 MR. NOEL: Yes.

26 For those of you who may have forgotten,

1 Captain Kluge's PowerPoint says "Caption Kluge."

2 THE WITNESS: That's right. It did.

3 [DISCUSSION OMITTED.]

4 GRAND JURY FOREPERSON: Mr. Barkley, you are
5 admonished not to discuss or disclose at any time outside
6 of this jury room the questions that have been asked of
7 you or your answers until authorized by this Grand jury
8 or the Court. A violation of these instructions on your
9 part may be the basis for a charge against you of
10 contempt of court. This does not preclude you from
11 discussing your legal rights with your own attorney.

12 Mr. Barkley, what I have just said is a warning
13 not to discuss this case with anyone except the Court,
14 your lawyer, or the district attorney.

15 THE WITNESS: Yes, ma'am.

16 GRAND JURY FOREPERSON: Thank you. Thank you
17 for your time.

18 [DISCUSSION OMITTED.]

19 --oOo--

20

21

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26

COURT REPORTER'S CERTIFICATE


This is to certify that I, JENNIFER L. HUNT, CSR, a Certified Shorthand Reporter of the State of California, was present at the time and place the foregoing proceedings were had and taken in the within matter; that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings and afterwards caused my said shorthand writing to be transcribed into typewriting. Further, pursuant to CCP237 all reference to jurors by name has been redacted.

The foregoing pages beginning at:

1 through 96

are certified to be a complete transcription of said stenographic shorthand notes.

DATED: THIS 6TH day of JUNE 2022



JENNIFER L. HUNT, CSR 10735
OFFICIAL REPORTER

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IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

REDACTED

BCSC-2019-GJ-01

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

FRIDAY, JANUARY 10, 2020

VOLUME 29

OROVILLE, BUTTE COUNTY, CALIFORNIA

LISA MCDERMID WELCH, CSR 10928, OFFICIAL COURT REPORTER

1 APPEARANCES:

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3 Marc Noel, Deputy District Attorney
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5 25 County Center Drive
6 Oroville, California 95965

7 FOR THE STATE OF CALIFORNIA DEPARTMENT OF JUSTICE
8 OFFICE OF THE ATTORNEY GENERAL:

9 (No appearance)

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Examination by Mr. Noel

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1 OROVILLE, BUTTE COUNTY, CALIFORNIA

2 JANUARY 10, 2020; 8:45 a.m.

3 (Confidential Special Grand Jury Hearing Proceedings)

4
5 [ROLL CALL OMITTED.]

6
7 [DISCUSSION OMITTED.]

8
9 [Witness enters the courtroom.]

10 GRAND JURY FOREPERSON: Dr. Marvin, before you
11 have a seat, I would like you to raise your right hand so
12 we can swear you in, please.

13 Dr. Marvin, do you solemnly swear that the
14 evidence you shall give in this matter pending before the
15 grand jury shall be the truth, the whole truth, and
16 nothing but the truth so help you God?

17 THE WITNESS: I do.

18 GRAND JURY FOREPERSON: Thank you. Have a seat.

19 **EXAMINATION**

20 BY MR. NOEL:

21 Q. Dr. Marvin, for the record could you please
22 state your full name and spell your last name.

23 A. I'm Dr. Susan Marie Marvin.

24 Is this on? Can you hear me? Is it on now?

25 Okay. I'm Dr. Susan Marie Marvin, M-a-r-v-i-n.

26 Q. Dr. Marvin, are you employed?

1 A. I am.

2 Q. By whom are you employed?

3 A. By the Federal Bureau of Investigation at the
4 laboratory in Quantico, Virginia.

5 Q. And what is your job at the lab?

6 A. I am a metallurgist forensic examiner.

7 Q. What is a metallurgist?

8 A. A metallurgist is someone who studies metal,
9 everything from how they are produced from the ore in the
10 ground, how they're processed into usable materials, and
11 then how they perform in service and often how they break
12 under service or abuse conditions.

13 Q. And what is a forensic examiner?

14 A. As a forensic examiner I take the knowledge of
15 the metallurgically sciences and apply them to
16 investigations in criminal or other matters in the aid of
17 law enforcement.

18 Q. Do you have special training and experience that
19 qualifies you for these jobs?

20 A. I do.

21 [Exhibit 770 introduced
22 as evidence.]

23 BY MR. NOEL:

24 Q. In front of you you should have Exhibit 770.

25 A. Yes.

26 Q. Do you see Exhibit 770?

1 A. I do.

2 Q. What is Exhibit 770?

3 A. This is my curriculum vitae that details my
4 education and work experience.

5 Q. Could you please walk us through your education
6 and experience that qualifies you as a metallurgist and
7 forensic examiner.

8 A. In 1986 I earned a Bachelor of Science degree
9 from Rensselaer Polytechnic Institute in Troy, New York
10 in the field of materials science and engineering. And
11 in 2004 I earned a Ph.D in the same field of materials
12 science and engineering at the University of Virginia.

13 The work on my Ph.D. concentrated on defamation
14 of titanium alloys.

15 In between those two educational efforts, I
16 worked for a variety of different universities,
17 industries, and government laboratories as a materials
18 engineer always studying defamation of metals under
19 different load and environmental conditions.

20 In addition to the work experience and formal
21 education, once I arrived at the FBI, I learned how to
22 apply my metallurgical skills in the forensic examination
23 environment and record all of the results of my
24 investigations in a manner that can be retained and
25 presented in court.

26 Q. How long have you been with the FBI lab?

1 A. Since February of 2005.

2 Q. Describe for us a little bit what the FBI lab
3 is.

4 A. The laboratory is an organization of about 800
5 people who perform examinations and evidence retrieval
6 and instruct field representatives of how to collect
7 evidence to keep it in a form that allows further
8 examinations to be performed on evidence. And then the
9 main body of our work is to perform those examinations to
10 reveal information about evidence that will aid the court
11 in trial proceedings, investigations, legal -- law
12 enforcement investigations, and trial proceedings.

13 Q. In February of 2018 -- or I'm sorry. In
14 February 2019 were you assigned to assist Butte County
15 with the Camp Fire investigation?

16 A. Yes.

17 Q. And what was your role in the investigation?

18 A. My role is to examine metal evidence to detect
19 the material the components were made out of, the
20 manufacturing characteristics of the materials, and
21 examine the damage mechanism or cause of that damage on
22 the different materials that are involved in this case.

23 Q. As part of your role in the -- in the Camp Fire
24 investigation, were you provided physical evidence to
25 examine and test?

26 A. Yes.

1 Q. What type of physical evidence?

2 A. I received six hooks from transmission tower
3 lines, transposition tower lines, and four segments of
4 jumper arms or runners each of which had an attached
5 bracket on them.

6 Q. When you say "received," can you tell us how you
7 received these.

8 A. I received these pieces in the course of normal
9 business at the FBI laboratory. The FBI field office in
10 Sacramento and the Chico resident agency facilitated
11 transfer to the laboratory and the laboratory incoming
12 evidence management group forwarded that evidence to me.
13 And I received that in my laboratory.

14 Q. So the field agent for the -- from the Chico
15 resident agency of the Sacramento field office, was that
16 Agent Matt Catalano?

17 A. I have been in conversation with Agent Matt
18 Catalano, especially Agent Catalano, but I don't have
19 personal knowledge of his procedures receiving that
20 evidence into his resident agency.

21 Q. But you received the evidence from Catalano?

22 A. I received the evidence from our evidence
23 management group.

24 Q. Okay. Does the FBI have a specific and standard
25 evidence handling procedure for submitting evidence to
26 the lab?

A. Absolutely.

Q. Okay. And were those procedures followed?

A. To my knowledge, they were.

Q. Okay. So what were you asked to do with the evidence that was submitted to you?

A. I was asked to determine whether there was any material defects, manufacturing detects, or abuse that contributed to the failure of these parts.

Q. And did you do so?

A. I examined them to detect manufacturing characteristics and damage characteristics, yes.

Q. And did you author a report reflecting your examination?

A. Yes.

[Exhibit 771 introduced
as evidence.]

BY MR. NOEL:

q. You should have in front of you 771.

A. Yes.

Q. Do you recognize 771?

A. This is my laboratory report dated November 22nd with the results of my examinations of the hooks and runners that I received.

Q. We have Exhibit 771 up on the big board behind you now. So can you walk us through your report and how to read your report.

1 A. The initial information that you see up top is
2 administrative information that refers to the initial
3 request that we received on paper on May 1st, 2019. The
4 evidence description lists all of the different pieces
5 that I received in the form that I received them and
6 defines that this report only refers to the metallurgy
7 results although other investigations may have been or
8 examinations may have been performed at the laboratory.
9 The results of the examination section is a summary of
10 the results of my examinations.

11 Q. Okay. Now, let's stop there. First, up here we
12 have the item list.

13 A. Yes.

14 Q. Is that the list of the items you described
15 earlier; the six hooks and four runners?

16 A. It is.

17 Q. And they are listed item one through item ten?

18 A. Yes.

19 Q. And then there's a description to the right?

20 A. Yes.

21 Q. Where do you get -- where does that description
22 come from?

23 A. The description comes from that incoming
24 communication May 1st, 2019. And during my examinations
25 there were written identification markings on the pieces
26 that I made sure matched with the incoming communication

1 description.

2 Q. Okay. So can you go through the item list for
3 us as to item one through item ten and what each
4 individual item is.

5 A. The results of my --

6 Are you asking for the results of my --

7 Q. No, no, no, no. Just the description of the
8 items.

9 A. Item one is a right phase hook from
10 Transposition Tower 24/199. The FBI number 1B2, E6435062
11 that follows that is the resident agency's application of
12 an evidence number that was associated with the case. So
13 the 1B2 number comes from the resident agency in
14 Sacramento and the item one number is applied by the
15 laboratory.

16 Item two is a left phase hook from the
17 Transposition Tower 24/199. And item three is the
18 dead-end hook from Transposition Tower 24/199. Item four
19 is a right phase hook from Transposition Tower 27/222 and
20 five is the left phase hook from that same transposition
21 tower. And item six is the dead-end hook from that same
22 transposition tower.

23 Item seven is the right phase jumper arm, which
24 is also referred to as a runner, from Transposition Tower
25 24/199. Item eight is the left phase jumper arm from
26 that same transposition tower.

1 Item nine is a right phase jumper arm from
2 Transposition Tower 27/222 and item ten is the left phase
3 jumper arm from that same tower.

4 Q. All right. So let's go -- so we'll come back to
5 some of this. But before we get started in depth, I want
6 to have you define some terms for us that are used in
7 your -- in your report.

8 And specifically, we're on page 3, the end of
9 page 3 of 5. "The following Chemistry Unit standard
10 operating procedures were used."

11 And if you could walk us through those and
12 explain to us what those terms mean.

13 A. Certainly. First of all, standard operating
14 procedures define the manner in which I conduct my
15 examinations.

16 So Metal-100, the examination for association or
17 origin, concentrates on the manner in which I perform
18 visual and physical examinations and then instrumental
19 tests to acquire the information to answer the questions
20 of the original request.

21 Origin refers to what the material is made from,
22 how it's made, and manufacturing characteristics, and
23 potentially what it suffered during its lifetime.

24 Association would take the information gained
25 during an origin examination and compare it to another
26 item for similar either source of manufacturer or similar

1 deterioration during service.

2 Metal-200 is standard operating procedure that
3 specifically states some of the methods I use for
4 analyzing the damage of surfaces -- surfaces and main
5 body metal components.

6 Metal-400 is an overall over-arching
7 compositional analysis method using the Optical Emission
8 Spectrometer.

9 Metal-401 defines the --

10 Q. Let me ask you really quick what is a
11 spectrometer or spectroscopy?

12 A. Okay. This is an instrument that helps me
13 determine the compositional analysis of a metal, what the
14 metal is made out of.

15 Q. And it says "Spark Discharge in Argon Optical
16 Emission Spectroscopy. What is "spark discharge"?

17 A. Spark discharge is created when an electrical
18 arc is generated between an electrode and the sample
19 surface. We're getting into details of the instrument
20 operation, but that generates a plasma that the light is
21 then analyzed and the relative abundance of different
22 wave lengths of the light are compared to the known
23 emissions from different elements of metal alloys.

24 So by measuring the wavelengths of the different
25 light mounted to a different light, the spectrometer
26 quantifies the elemental information.

1 Q. All right. Move on to 401.

2 A. Metal-401 takes that technique and applies it to
3 low carbon steels.

4 Q. What do you mean by low carbon steels?

5 A. Steel is an iron alloy that contains carbon and
6 other alloy elements. And the response of the
7 spectrometer for this method is specifically for carbon
8 content below -- the maximum is two percent carbon in the
9 iron alloy.

10 Q. All right. Go ahead and move on to Metal-500.

11 A. Metal-500 is a qualitative compositional
12 analysis method by X-rays fluorescence spectroscopy. In
13 this method instead of creating a physical plasma burning
14 sample, we are instead radiating the sample with X-rays.
15 Those X-rays interact with the electronic cloud of the
16 atoms in the sample, the excited electronic decay, and we
17 measure the X-ray energy that is given off by those
18 characteristics at play.

19 Again, the spectrometer works by detecting the
20 energy of those x-rays that are given off and then
21 generating a spectrum, a picture for me of the different
22 relative abundance of those characteristic X-rays that
23 tell me what elements are present in that material.

24 Q. Metal-501.

25 A. Metal-501 is the instrument that's used for this
26 X-ray Fluorescence Spectroscopy, which is XRF for short.

1 The Thermal Quant'X Spectrometer is a bulk -- is an
2 instrument that has an analysis spot of about a half an
3 inch by about three-quarters of a inch on the sample. So
4 it measures a relatively large portion of the sample at
5 one time compared to the next standard operating
6 procedure Metal-502. The Bruker M4 Tornado is a
7 microspot XRF that measures only 25 microns spot size at
8 one time.

9 The difference between these two XRF instruments
10 and the reason I in this case used two different methods
11 is the analysis chamber is different sizes. So I had
12 different sizes of parts that I wanted to fit into this
13 chamber.

14 Metal-701 is the operation of Rockwell Hardness
15 Tester. The hardness test generates a quantitative value
16 of the hardness of the material.

17 Metal-800 defines metallographic examinations.
18 These are tests that look at the internal microstructure
19 of the metal so that I can detect more compositional
20 information about them. And this can also give me some
21 heat-treating information about the steel and other
22 materials.

23 IOSS-809 is the performance monitoring protocol
24 for scanning electron microscopies with energy dispersive
25 spectroscopy; SEM-EDS.

26 EDS is a compositional analysis tool much like

1 XRF except instead of exciting the sample with x-rays,
2 we're exciting it with electrons.

3 Again, the electrons react with the electron
4 cause of the atoms in the sample and those then emit
5 x-rays. We detect the x-rays that are characteristic to
6 the elements in the sample so we can determine the
7 composition of the sample.

8 And the CUQA-13 at the bottom is the procedures
9 for estimating measurement uncertainty. These -- this
10 procedure is followed to make sure that when I report a
11 number, that the asteric -- - the precision of that
12 number can be understood by the reader.

13 Q. So are all of these tests and procedures applied
14 to each and every one of the ten items?

15 A. No. For my investigation I used the methods
16 that were appropriate for the pieces of information that
17 I was trying to elicit from the evidence.

18 Q. All right. So one of the steps that you said is
19 visual. So I want to walk through the visual analysis
20 and have you describe everything about individual pieces
21 as we walk through it. Is that okay?

22 A. Okay.

23 Q. All right.

24 [Exhibit 772 introduced
25 as evidence.]

26 BY MR. NOEL:

1 Q. So you should have in front of you Exhibit
2 Number 772. It's up on the big board.

3 You recognize Exhibit 772?

4 A. I do.

5 Q. What is Exhibit 772?

6 A. This is a hook fragment from -- and it's labeled
7 item five. It is the left phase hook fragment from
8 Transposition Tower 27/222.

9 Q. Did you take this photograph?

10 A. I did.

11 Q. Why did you take this photograph?

12 A. This photograph demonstrates this piece of
13 evidence as it arrived to me in my laboratory.

14 Q. And why do you take photographs of evidence as
15 you examine them?

16 A. I document the receiving condition and I
17 document different features that I recognize on the
18 pieces that contribute to my analysis.

19 Q. What kind of photographic equipment are you
20 using for these photographs?

21 A. I use a variety of equipment. I have a macro
22 camera on a Kaiser stand that allows me to increase the
23 magnification of a part several times, up to five times
24 magnification for pictures of whole components.

25 I also use a stereo microscope to take some of
26 the pictures of features that I need to be magnified in

1 order for documenting the conclusions that I am drawing.

2 Q. All right. You have the entire stack of
3 exhibits there in front of you. I think all together
4 there are 52 photographs.

5 Are all of those your photographs?

6 A. Yes, they all appear to be photographs that I
7 took in the laboratory.

8 Q. And what type of resolution camera are you
9 using?

10 A. I don't have that information about the size on
11 the camera. I had to have high resolution. Photographs
12 generated are on the order of between two and thirteen
13 megs; megapixels.

14 Q. All right. So 772, item number five, is a
15 broken hook. Anything on this photograph that we should
16 talk about?

17 A. So this hook fragment under visual
18 examination -- so two things that I do preliminarily. I
19 want to identify the material and the construction and
20 then also any damage. So the combination of my
21 examination determines if the material is cast iron,
22 galvanized and has -- meaning it has a zinc coating --
23 and that there is defacement of several -- with several
24 indicators on the fractured surface.

25 Q. If you could explain to us very briefly what it
26 means to galvanize metal.

1 A. Zinc coating is applied to the exterior of the
2 component in order to be sacrificial layers so the
3 corrosion has the same zinc layer and not on the
4 underlying metal. It protects the metal from corrosion.

5 Q. So other than the visual check, what other tests
6 did you run or examinations did you run on item five
7 depicted in 772?

8 A. This is a depiction of the item before I do any
9 of the tests on it.

10 Q. Right.

11 A. Okay. So I subsequently looked at the
12 microstructure and measured the hardness of item five and
13 measured the composition of the exterior of item five.

14 Q. And what did you determine with the composition
15 of the exterior?

16 A. The exterior is coated with zinc that has other
17 elemental additions but predominately zinc coated over a
18 malleable cast iron-based material.

19 Q. Okay. What does malleable mean in that context?

20 A. Malleable in the context of defamiation means
21 it's easily pushed as opposed to ductile which is easily
22 pulled. Malleable cast iron is the definition of a type
23 of cast iron which I can explain better if we pull up the
24 microstructure.

25 Q. That's the next question. The next question is
26 can you define for us what cast iron means in this

1 context.

2 A. So earlier I mentioned that low carbon steel has
3 a -- low carbon steel is defined by the amount of carbon
4 in the iron matrix. Cast iron is also dependent on the
5 amount of carbon in the iron matrix. But there's so much
6 carbon in cast iron that it precipitates out or
7 agglomerates out during heat treatment. So the material
8 responds differently because of the different
9 composition.

10 So there's quite a few different kinds of cast
11 iron. This particular cast iron is -- backing up,
12 casting would be pouring the molten metal into a mold and
13 letting that solidify. In a malleable cast iron a high
14 carbon -- relatively high carbon molten material is
15 poured into the mold and allowed to solidify in a manner
16 that that carbon is distributed throughout the metal
17 alloy.

18 Malleable cast iron is then tempered so that the
19 excess carbon that is frozen in place is allowed to
20 defuse out. And it's done in conditions that form an
21 agglomerated asymmetrical mass of carbon, masses of
22 carbon throughout that microstructure.

23 Other cast irons are heat treated in different
24 ways to form different types of carbon masses throughout
25 the microstructure. And they have different mechanical
26 properties because of that.

1 [Exhibit 773 introduced
2 as evidence.]

3 BY MR. NOEL:

4 Q. All right. Let's move on to 773. What is 773?

5 A. This is the opposite side of item five.

6 [Exhibit 774 introduced
7 as evidence.]

8 BY MR. NOEL:

9 Q. And 774?

10 A. This photograph documents some of the deformed
11 metal along the edge of the separated surface of item
12 five.

13 Q. Get up and -- please feel free to get up and
14 show us what you're talking about.

15 THE WITNESS: May we please look at Exhibit 776.
16 There's two more pictures.

17 [Exhibit 776 introduced
18 as evidence.]

19 BY MR. NOEL:

20 Q. Yep.

21 A. Okay. So this is a face onto that separated
22 surface. Just to get a perspective of what we're looking
23 at here we'll back up to the picture previous. And we
24 will be looking around these edges.

25 So now back up two. So this lip of deformed
26 material here actually came from the surface, the

1 separated surface and is folded over the edge. So that
2 gives me indication of the wear direction. The damaged
3 material is pushed around the edge. This is an important
4 characteristic for my evaluation.

5 [Exhibit 775 introduced
6 as evidence.]

7 BY MR. NOEL:

8 Q. Okay. And 775.

9 A. This is the other side of that surface, that
10 separated surface that also has deformed material pushed
11 over the edge. So if you can imagine a flat surface and
12 deformed material is pushed over both edges, that means
13 the defamination is happening in two directions.

14 Q. And from inside to out?

15 A. From -- a better term is across.

16 Q. Across. Okay.

17 A. Across that.

18 Q. And we're referring now to 775, Exhibit 775;
19 correct?

20 A. Yes.

21 Q. And this is another what I would describe as
22 high definition and extreme close-up of item five.

23 A. This is a macrophotograph at a magnified view
24 which . . .

25 Q. All right. Let's move on to 776. What is 776?

26 A. So 776 is also a macrophotograph at a magnified

1 view of the flat separated surface. They flatten in
2 macro sense because you can see there's texture along the
3 surface that indicates to me there is a rotational aspect
4 to whatever formed these defamation features.

5 And when we compare that to the previous two
6 photographs, this -- I'm indicating an arced pattern that
7 has a rotational component of defamation that caused the
8 rims of deformed material over the edges that we saw in
9 the previous two photographs.

10 Q. Right. So they're either almost described as
11 arced striations. Would that be an appropriate
12 description of these?

13 A. In metallurgy failure analysis striations are
14 often attributed to fatigue defamation. This is not
15 fatigue defamation. So I don't want to confuse the
16 term -- the mechanism of defamation by calling them
17 striations. They are defamation marks.

18 Q. Okay. So if these aren't -- well, all of a
19 sudden I lost the verbiage you used.

20 What do these marks indicate to you?

21 A. That progressive rotational damage is happening
22 through this part.

23 Q. So rotational damage. So are we talking
24 about -- I'm demonstrating with my finger in a hole
25 rocking back and forth. This hook rocking back and forth
26 in a --

1 A. It's defamation on this surface. So it's
2 typical wear, rotational wear and could be formed by a
3 hook rocking back and forth in a slot. Or not in a slot.
4 Over a material that forms a slot in the hook. We will
5 see this later on in other hooks.

6 Q. Yep.

7 Now, on the edge of item five, the hook, the
8 left phase hook from 27/222, there appears to be some
9 discoloration. Was there corrosion on the broken hook
10 phase?

11 A. There was corrosion on the broken hook phase.
12 This (indicating) discoloration is corrosion product.

13 Q. Now, on the bottom is what I previously referred
14 to with the completely scientific term of the toenail of
15 the hook or the break. Can you describe that for us and
16 the conclusions that you were able to draw.

17 A. Will you please advance to the next photograph.

18 [Exhibit 777 introduced
19 as evidence.]

20 BY MR. NOEL:

21 Q. All right. So going to 777.

22 A. So while this separated phase shows me that wear
23 occurred in a progressive manner and with a rotational
24 aspect, the bottom fracture area is overload failure,
25 overload fracture. So the wear on this piece occurred
26 through the cross-section of the hook until finally the

1 hook was not strong enough to support the load that was
2 applied to it and broke off.

3 This (indicating) area is a more recent fracture
4 than all of this wear and it does not show as heavy
5 corrosion layers as on the rest of the surface.

6 Q. How do you tell the difference between wear and
7 fracture?

8 A. The characteristic of the surface.

9 Q. Okay.

10 A. The texture of the surface.

11 Q. Demonstrate on the picture itself if you can
12 show us.

13 A. So the texture of this fractured -- I'm going to
14 call it the ligament. The last little bit that fractured
15 is a very rough ridge area that actually shows the
16 separation points between the two halves of the hook.
17 Not that we have another piece of the hook to compare it
18 to, but that is typical of a fracture surface about where
19 the material is coming apart. And the little ridges
20 between the materials that separate are still remaining
21 there. That is present through this (indicating) entire
22 area.

23 Q. Now, there does appear to be some discoloration
24 on the ligament. Am I saying that correctly?

25 A. There is some light corrosion on part of the
26 ligament.

1 Q. Did that corrosion play any part in the failure
2 of the ligament?

3 A. It does not appear that that -- that any
4 corrosion played any part in -- no penetrating corrosion
5 was evident throughout any of this investigation.

6 Q. So based upon your examination and analysis,
7 were you able to form an opinion as to why this hook may
8 have failed?

9 A. Yes.

10 Q. And what was that opinion?

11 A. This hook failed under wear conditions,
12 body-on-body wear with a rotational component.

13 Q. Were you able to do an analysis to determine
14 approximately how long it would take for that
15 body-on-body wear to occur down to failure point?

16 A. No, I'm not able to make that prediction of
17 duration of the progression of the wear.

18 [Exhibit 778 introduced
19 as evidence.]

20 BY MR. NOEL:

21 Q. All right. Let's move on and let's go to 778.
22 And what is 778?

23 A. So I have my photographs organized by photograph
24 number and you don't have the labels on this. So if I
25 can cross-reference my notes, I'd be happy to tell you
26 what that exhibit is.

1 Q. Sure. Go ahead.

2 A. So 778 is item four, the right phase hook from
3 Transposition Tower 27/222.

4 Q. All right. Would you -- did you do the same
5 analysis and examination of the right phase hook?

6 A. I did. I did a visual examination for
7 manufacturing characteristics and for damage. I did a
8 compositional analysis. I performed a metallography
9 analysis.

10 Q. And so what were you able to determine about the
11 right phase hook from 27/222?

12 A. The right phase hook is galvanized plain carbon
13 steel that has suffered damage that is due to wear --
14 body-on-body wear with a rotational component.

15 Q. What is the difference between plain carbon and
16 low carbon steel?

17 A. There doesn't have to be any difference. A
18 plain carbon steel is simply a steel that has not been
19 alloyed with some of the more advanced alloying additions
20 that we use to increase strength, for example, of steel.

21 Q. Is there a manufacturing difference? For
22 instance, you said the other one was malleable cast iron?

23 A. Absolutely there's a manufacturing difference.
24 So whereas a cast iron component would be in a molten
25 state, the liquid metal poured into a mold of the shape
26 very close to the final product and solidified. A steel

1 like this would be cut -- a preliminary form would be cut
2 from, for example, a plate of steel and then that would
3 be heated up and forged into the final form of such a
4 hook.

5 Q. So the left phase and the right phase were made
6 from different types of steel and by different methods of
7 manufacture?

8 A. Yes.

9 Q. All right. So you see any damage on this hook?

10 A. This damage has a groove worn into the inner
11 diameter of the hook at the contact surface of its
12 support structures.

13 [Exhibit 779 introduced
14 as evidence.]

15 BY MR. NOEL:

16 Q. All right. Let's move on to 779.

17 A. That is the opposite side of the same hook.

18 [Exhibit 780 introduced
19 as evidence.]

20 BY MR. NOEL:

21 Q. And 780.

22 A. That's a close-up of the damaged metal that is
23 again overlapping the outside brim of that groove that's
24 worn into the hook.

25 [Exhibit 781 introduced
26 as evidence.]

1 BY MR. NOEL:

2 Q. And 781.

3 A. This is the opposite side of that. There's also
4 metal here and here.

5 [Exhibit 782 introduced
6 as evidence.]

7 BY MR. NOEL:

8 Q. And 782.

9 A. This one shows the rotational nature of the
10 damage of the wear. Some of these -- I'm going to call
11 them ridges right now rather than striations. I don't
12 want to use the word "striations" because I don't want to
13 confuse the failure mechanism.

14 Q. All right. So let's back up and make sure we
15 have a clear record. So 782 is another photograph of the
16 right phase hook from 27/222, item number four, I
17 believe?

18 A. If you can tell me the MAC number I can verify
19 that for you.

20 Q. I don't have the MAC number on it.

21 A. We did not keep that cross-reference.

22 Q. And I went off and left the notepad with the
23 cross references sitting on my desk.

24 A. I can do this.

25 Yes. Based on my records within my examination
26 notes, this photograph is of item four, which is the

1 right phase hook from that same transposition tower.

2 Q. Okay. The same hook that was shown in 781, 780,
3 and 779?

4 A. Yes.

5 Q. All right. So explain to us why this photo --
6 what this photo shows.

7 A. Okay. This photo shows the curvature of the
8 hook is this (indicating) way. The interior curvature of
9 the hook is this (indicating) way. So this is showing
10 the inner surface of the groove where wear -- at the
11 location that wear has occurred and it shows deformation
12 has formed in a rotational manner across this surface of
13 this hook.

14 Q. And what is the significance of that?

15 A. Again, that the wear is occurring with a
16 rotational aspect.

17 Q. And I guess I didn't ask you this when we looked
18 at the photographs and the broken hook. Does
19 body-on-body metal fatigue wear like this? Is this a
20 known phenomenon?

21 A. Fatigue is a different mechanism. So leaving
22 fatigue aside, body-on-body wear is a known mechanism, is
23 a manner of deformation, and academically there are many
24 other specific mechanisms that can -- that can define
25 body-on-body wear such as friction. Friction, wear,
26 fretting, abrasive wear -- all of those are body-on-body

1 wear. I did not identify specifically the mechanism by
2 which this body-on-body wear happened.

3 Q. But these are well-known and well-documented
4 phenomenon; correct?

5 A. Yes.

6 Q. And things that have been well-known and
7 well-documented for many years?

8 A. Yes.

9 [Exhibit 783 introduced
10 as evidence.]

11 BY MR. NOEL:

12 Q. All right. Let's move on to 783. Got it?

13 A. So 783 is item six, the dead-end hook from
14 Transposition Tower 27/222.

15 Q. Did you do your examination and analysis of --

16 A. Yes.

17 Q. -- the hook depicted in 783?

18 A. I performed visual and physical examinations. I
19 evaluated the deformation characteristics. I examined the
20 microstructure metallography and did compositional
21 analysis on the exterior of this hook.

22 Q. I guess we should go back. One of the things is
23 this hook seems to have a "B" -- it's kind of corroded on
24 this hook -- on it; correct?

25 A. Yes.

26 Q. Now, the previous hook has a "B" and an "O" and

1 a serial number on the other side or at least a number on
2 the other side. Correct?

3 A. A number, yes.

4 Q. And then going back to our first hook, it has a
5 raised "B."

6 A. Yes.

7 Q. So what can you tell us about the hook depicted
8 in 783? The dead-end hook from 27/222?

9 A. The dead-end hook has a raised "B" on this. So
10 part of my examination for origin of materials is looking
11 at identifying manufacturing markings that are on
12 components. And one of the things that I report on is
13 the origin of trademarks that are applied to different
14 components.

15 The circle "B," the "B" with a circle around it
16 or either an "O" around it in an oval form or circle
17 form, was trademarked in 1907 by Ohio Brass and then
18 owned subsequently by another company. And that
19 information comes from the U.S. Patent and Trademark
20 Office. The "B" was not patented separately from what I
21 could detect from the U.S. Patent and Trademark Office.

22 Q. What can you tell about the composition and
23 characteristics of the hook itself? The metal?

24 A. The item six hook, the dead-end hook from the
25 27/222 tower, is galvanized steel with wear that formed a
26 groove that was created by body-on-body wear with a

1 rotational component.

2 Q. Is this a cast iron metal like the hook from the
3 failed hook or is this a forged metal like the last hook?

4 A. This is not cast iron like the brackets looked
5 like that were separated from it. This is steel,
6 galvanized steel similar to item four, the right phase
7 hook off the same tower.

8 [Exhibit 784 introduced
9 as evidence.]

10 BY MR. NOEL:

11 Q. All right. So let's move on to 784.

12 A. So can you go back to 783, please.

13 Q. Sure.

14 A. Okay. So 784 is the opposite side of 783. It's
15 upside down from what my notes are. So I apologize. It
16 took me a little time to make sure it's the same
17 photograph.

18 Q. Let's make a record here. You took a lot of
19 photographs in your lab of these -- of all these various
20 parts; correct?

21 A. I did, yes.

22 Q. And of those photographs there were, I think, 52
23 photographs chosen?

24 A. Yes.

25 Q. And on your photographs you said what you refer
26 to as a MAT number on them, M-A-T.

1 A. M-A-C but, yes.

2 Q. And, of course, we have to put our exhibit
3 stickers on them. So we have different numbering; is
4 that correct?

5 A. That's correct.

6 [Exhibit 785 introduced
7 as evidence.]

8 BY MR. NOEL:

9 Q. All right. So let's move on to 785.

10 A. Okay. 785 is this item six hook again
11 depicting -- this is a close-up depicting the over -- the
12 deformed material forming a lip at the edge of the worn
13 groove.

14 Q. Why is that significant?

15 A. Again, that means that the wear deformation is
16 pushing material up over the edge of that groove. It
17 gives me an indication of the type of damage that
18 happened on this one.

19 [Exhibit 786 introduce
20 as evidence.]

21 BY MR. NOEL:

22 Q. Let's move on 786.

23 A. 786 is item six hook with the overlapping
24 material over the edge of the groove. And along the
25 inner groove there's also -- along the cross-section of
26 the interior curve of the hook is also some deformed

1 material that pushed -- pushed back this (indicating) way
2 toward that interior of that curve.

3 Q. Why is that significant?

4 A. Again, that's telling me the direction of the
5 defamation of the metal.

6 Q. And is all of that consistent with the
7 rotational wear?

8 A. In this particular hook and the other hooks that
9 we've looked at, most of the remaining indication of the
10 wear of the deformed metal occurred at the side edges of
11 the groove. In this case, it's also occurring along that
12 interior -- at the groove edge on the interior of the
13 curvature of the hook which indicates there's a little
14 bit of a sliding motion going on as well.

15 [Exhibit 787 introduced
16 as evidence.]

17 BY MR. NOEL:

18 Q. All right. Let's try and do one more. Let's
19 move on to 787. And I think, if I remember right, the
20 MAC number on this is number one.

21 A. It's item one.

22 Q. Yep.

23 A. Right phase hook from the 24/199 transposition
24 tower. So this is the condition in which I received this
25 hook.

26 [Exhibit 788 introduced

1 as evidence.]

2 BY MR. NOEL:

3 Q. All right. Let's go to 788.

4 A. This is the opposite side of the same hook.

5 [Exhibit 789 introduced
6 as evidence.]

7 BY MR. NOEL:

8 Q. And 789.

9 A. So this has a deep groove worn the majority of
10 the way through the cross-section of the hook and the
11 deformed metal along the edge of that worn groove.

12 Q. So I skipped a step. Did you do the
13 compositional analysis and everything of this hook also?

14 A. Yes, I did.

15 Q. And what did you find out about this specific
16 hook?

17 A. This is a galvanized malleable cast iron hook.
18 So the composition is similar to the separated hook that
19 is item number five in composition and manufacture.

20 Q. All right. Now, what do you see in this
21 photograph 789 of significance?

22 A. The photograph is taken to document the
23 defatation and the displacement of the material to the
24 outer edge of the groove and it's folding back onto the
25 hook.

26 Q. Why is that significant?

1 A. Again, this tells me the direction of the wear
2 contact surface, how the metal is being pushed out of the
3 way so that there's this rotational component of the
4 wear.

5 [Exhibit 790 introduced
6 as evidence.]

7 BY MR. NOEL:

8 Q. All right. And 790.

9 A. This is the opposite side of the same hook again
10 showing the deformed metal. So this is happening on both
11 sides of the groove. So the defamination is happening both
12 directions. And this shows that it's happened along the
13 whole groove. Here (indicating) is a little bit more
14 worn off. So this is a progression of defamination through
15 the hook.

16 [Exhibit 791 introduced
17 as evidence.]

18 BY MR. NOEL:

19 Q. All right. And 791.

20 A. This emphasizes the last point I just said where
21 there's folded-over deformed material on both sides of
22 that groove.

23 [Exhibit 792 introduced
24 as evidence.]

25 BY MR. NOEL:

26 Q. And 792.

1 A. This picture is an attempt to document the
2 rotational nature of the wear that is occurring on the
3 interior surface of the groove. This is looking down
4 into the groove from the interior curve of the hook. The
5 most recent wear occurred down here at the -- near the
6 remaining ligaments of this hook. These (indicating)
7 deep marks from their rotational wear have not been worn
8 away. The older wear is more smashed down and less
9 visible.

10 And then out at the very interior surface of
11 that curve, the first part of the groove that would have
12 been formed, the rotational wear marks are really visible
13 because they've been deformed away by the continued wear
14 that penetrated through the cross-section of that hook.

15 Q. On the worn sections do we see corrosion?

16 A. There is corrosion product on the worn sections,
17 yes.

18 Q. I forgot to ask you the same question. But let
19 me go on to the next one and then I'll come back to it.

20 [Exhibit 793 introduced
21 as evidence.]

22 BY MR. NOEL:

23 Q. And 793.

24 A. This is a picture of the opposing phase of that
25 same groove. So the groove is cut into the interior of
26 that hook. And the previous picture was one side of the

1 hook toward the tip of the hook. The other is the other
2 phase of the groove. This is the other phase of the
3 groove toward the body of the hook and again showing
4 rotational component of the wear surface.

5 Q. So in your analysis, in your examination, and
6 especially in your compositional analysis of this hook
7 item number one, did you find any defects?

8 A. I found no material defects in this hook.

9 Q. The same question going back to hook number five
10 or item number five, the broken hook from 27/222.

11 A. My examination did not reveal any manufacturing
12 defects or penetrating corrosion in any of these hooks.

13 MR. NOEL: Madam Foreperson, this would be a
14 good time for a break.

15 GRAND JURY FOREPERSON: Okay.

16 MR. NOEL: Take our morning break. We have
17 15 minutes. She'll have an admonition for you.

18 GRAND JURY FOREPERSON: Dr. Marvin, you are
19 admonished not to discuss or disclose at any time outside
20 of this jury room the questions that have been asked of
21 you or your answers until authorized by this grand jury
22 or the court. A violation of these instructions on your
23 part may be the basis for a charge against you of
24 contempt of court. This does not preclude you from
25 discussing your legal rights with your own attorney.

26 Dr. Marvin, what I have just said is a warning

1 not to discuss this case with anyone except the Court,
2 your lawyer, or the district attorney.

3 Do you have any questions?

4 THE WITNESS: I do not. Thank you.

5 GRAND JURY FOREPERSON: Okay. Thank you.

6 [Recess taken from

7 9:46 until 10:05 a.m.]

8 GRAND JURY FOREPERSON: All members of the grand
9 jury are present and ready to proceed.

10 Dr. Marvin, if you'd have a seat right here.
11 I'd like to remind you that you're still under oath.

12 **EXAMINATION CONTINUED**

13 BY MR. NOEL:

14 Q. All right. I want to go back because apparently
15 we skipped a couple or at least we could do a little
16 cleanup on a couple.

17 Go back is 776. And if you could just briefly
18 describe what is depicted in photograph number 776.

19 A. So 776 shows the item five hook, the phase of
20 the separated surface, and it is at a focus that depicts
21 the rotational nature of the wear that we were talking
22 about earlier. There's some arced ridges across this
23 plain.

24 Q. All right. And then 782. I think that should
25 be -- I have mine in order too. So I think it's 48, MAC
26 code 48. Either 43 or 48.

1 A. So that's not 48.

2 Q. Forty-five then?

3 A. No.

4 Q. Yeah, you're right.

5 A. This looks like MAC 031. Does that march your
6 correlation?

7 Q. Yep.

8 A. Okay. So this photograph is of item four.
9 Again, this is the interior curve of the hook where the
10 groove has worn across that interior surface. And the
11 photograph is taken at an angle to try to depict the worn
12 surface and show the rotational nature of the wear that
13 has occurred.

14 [Exhibit 794 introduced
15 as evidence.]

16 BY MR. NOEL:

17 Q. All right. Let's go to 794 and go back to where
18 we left off. This should be MAC code 10.

19 A. So this is hook item number two, the left phase
20 hook from the Transposition Tower 24/199.

21 [Exhibit 795 introduced
22 as evidence.]

23 BY MR. NOEL:

24 Q. And 795.

25 A. It's the opposite side of that same hook.

26 Q. And let me back up. Did you do compositional

1 analysis on this hook?

2 A. Yes. I did a compositional analysis of the
3 exterior coating to determine that it was a zinc coating
4 and the base material is plain carbon steel.

5 [Exhibit 796 introduced
6 as evidence.]

7 BY MR. NOEL:

8 Q. All right. So 796.

9 A. This photograph shows that same hook has similar
10 defamation that we've seen on the edges of the other
11 grooves on the hook where the deformed material is folded
12 over the edge of the groove.

13 [Exhibit 797 introduced
14 as evidence.]

15 BY MR. NOEL:

16 Q. And 797.

17 A. There's less of that material on this side, the
18 opposite side of the previous photograph. But this is
19 that worn edge. And there is still a little bit of that
20 deformed material folding over the exterior of that
21 groove on that side. So both sides show that deformed
22 material.

23 [Exhibit 798 introduced
24 as evidence.]

25 BY MR. NOEL:

26 Q. All right. Let's move on to 798.

1 A. This is hook number item -- laboratory item
2 three, the dead-end hook from the 24/199 transposition
3 tower.

4 [Exhibit 799 introduced
5 as evidence.]

6 BY MR. NOEL:

7 Q. And 799.

8 A. This is the flip side of that same hook.

9 Q. And did you do compositional analysis on this
10 hook?

11 A. I did. I did the compositional analysis of the
12 exterior to determine the galvanized coating. And the
13 interior base material is plain carbon steel.

14 [Exhibit 800 introduced
15 as evidence.]

16 BY MR. NOEL:

17 Q. On to Exhibit Number 800.

18 A. So the dead-end hook on this transposition tower
19 shows a little bit of a disturbance of the regular wear
20 pattern that we've seen on the other hooks. There is a
21 worn groove, but there is also a section of wear or
22 damage that occurred adjacent to the groove as if the
23 contact surface was disrupted and turned into a different
24 orientation.

25 So what this tells me is something is moving
26 between the contact area. Either the load has been

1 adjusted or the frequency of the vibration has been
2 adjusted. Something has happened in that contact
3 surface. So the wear is not as regular as we have seen
4 on the other hooks.

5 Q. Are you familiar with the term generally used in
6 construction of something being plumb?

7 A. Yes, generally.

8 Q. What is your understanding of the term?

9 A. Plumb would be in line perpendicular with an
10 axis that was perpendicular to the surface of the Earth,
11 gravity. So straight down in line with gravity.

12 Q. So the first five hooks that we looked at items
13 one through five, would you be able to say whether or not
14 those hooks were hanging plumb?

15 A. I can't say that. I can only see the grooves.
16 I can't determine what the angle of that hook was as it's
17 in service. So the groove is being formed at the
18 interior of the hook. I can't tell whether the load is
19 coming off at an angle or the load is coming plumb and --
20 so I don't have the ability to make that determination.

21 Q. What about on this hook item number three,
22 photograph number 800?

23 A. The damage on this hook tells me that the load
24 moved. So that angle of application of force could have
25 changed, yes.

26 Q. Okay. And move for quite -- obviously for a

1 while, not just once? Would that be -- I guess we can't
2 really -- you can't give us an opinion as to how long it
3 took. But is the damage consistent with that angle, that
4 movement over time or a one-time deal?

5 A. So there's several different major ridges on
6 this disturbed region. So there may have been several
7 different re-locations of the load application, but these
8 wear patterns form over time. So at each location that
9 forms a regular wear pattern that orientation existed and
10 those oscillations of whatever wearing against each other
11 happened over time.

12 And so the main groove pattern happened over a
13 period of time. And the wear that happened within the
14 disturbed region also happened over time, but I can't
15 predict what that time period was.

16 [Exhibit 801 introduced
17 as evidence.]

18 BY MR. NOEL:

19 Q. All right. Now we're going to switch gears a
20 little bit and move to the jumper arms and just get you
21 in the right place. This would be MAC code seven. Or
22 I'm sorry. It's 59.

23 A. Okay.

24 Q. And Exhibit 801. Do you see Exhibit 801?

25 A. This is a photograph of laboratory item seven
26 which is the right phase jumper arm from Transposition

1 Tower 24/199 as I received it in the laboratory.

2 Q. All right. And what types of analysis and
3 examination did you do on the jumper arm shown in 801?

4 A. So I did a visual analysis of the entire part
5 and the mounting bracket that is mounted onto the end of
6 this jumper arm. And I looked at characteristics like
7 the alignment of the hole between the bracket and the
8 jumper arm and the damage that is apparent at both of
9 those locations to show that nothing went straight
10 through both holes and created the damage at the same
11 time. These holes are not in alignment.

12 Also characterized the damage, the elongation of
13 each of the hanger holes that are on the end of the
14 jumper arm. And I compositionally analyzed the coating
15 and the base material of both the jumper and the bracket.
16 And I measured the hardness of both the jumper arm and the
17 bracket.

18 Q. And what did you find in your compositional
19 analysis of the jumper arm Exhibit 801?

20 A. Both the jumper and the bracket are galvanized
21 load -- excuse me, galvanized plain carbon steel.

22 Q. What does that mean?

23 A. Again, zinc-coated carbon steel.

24 Q. And by the way, did you analyze the
25 galvanization and zinc coating?

26 A. I did in place on the substrate material.

1 Q. And what did you determine about the zinc
2 coating?

3 A. The coating is predominantly zinc. There are
4 other elements within the coating that result from the
5 manufacturing process.

6 Q. And were you able to identify those other
7 elements?

8 A. They are identified, yes.

9 Q. Is one of those cadmium?

10 A. Now, I'll have to look at the notes. So the
11 application of galvanized coating occurs in several
12 steps, preparation steps. And some of the materials from
13 the preparation steps are retained through to the end
14 product.

15 Also, some additions to zinc are made to improve
16 the adherence of the zinc onto the substrate. Those
17 practices have changed over the years, but my analysis
18 reveal that it's predominantly zinc, a very, very small
19 addition. Some of the material that I measured had
20 indicia of cadmium. Some of them had indicia of lead.
21 For me to differentiate between the two of them I'd have
22 to look back at my analysis.

23 Q. And we don't need to go back through.

24 What is the significance about the presence of
25 cadmium?

26 A. Cadmium is a toxic material that is trying to be

1 eliminated from manufacturing practices these days.

2 [Exhibit 802 introduced
3 as evidence.]

4 BY MR. NOEL:

5 Q. Okay. All right. So let's move on to 802, MAC
6 number 63. And tell us what we're looking at.

7 A. This is the hole in the runner on that item
8 seven jumper arm. And it shows that the original -- what
9 can be presumed to be the original drilled hole in the
10 runner arm has been elongated by a significant amount
11 again by wear that created this lip of material at the
12 edge of the deformed hole.

13 [Exhibit 803 introduced
14 as evidence.]

15 BY MR. NOEL:

16 Q. So let's move on to 803.

17 A. A better picture. This is the other side of
18 the --

19 Would you mind going back one picture.

20 Q. Sure. That should be MAC 63.

21 A. Okay.

22 Q. And the next one should be MAC 64.

23 A. Yes. So then 63 was the exterior side of the
24 hole. The angle is formed like this (indicating), the
25 angle stock. And then the bracket is added on to make
26 kind of a "U."

1 We're talking about the outside of the hole when
2 I say exterior. So this (indicating) is the exterior,
3 the photograph of the exterior. And the next photo is a
4 photograph of the other side of that hole, the interior
5 surface of that again with a large lip of deformed metal
6 folded over the edge of that worn region.

7 Q. And what is the significance of that metal over
8 or the lip of metal folded over?

9 A. Again, that is an indication of the wear that
10 occurred, this type of deformation that occurred.

11 Q. And what type of wear is this?

12 A. A body-on-body wear.

13 [Exhibit 804 introduced
14 as evidence.]

15 BY MR. NOEL:

16 Q. All right. Let's move on to 804. That should
17 be 65.

18 A. This is the interior side of that. Did I
19 miss one? I'm sorry. Could we go back through the last
20 three pictures.

21 Q. 802, 803, 804.

22 A. Thank you. So this (indicating) is the interior
23 of that hole.

24 Q. And again, what is the significance in this
25 photograph?

26 A. I want to make sure I'm speaking correctly. Can

1 you go back to the first one.

2 Q. Yep.

3 A. Okay. So this is item seven. We are looking at
4 that exterior.

5 Q. Oh.

6 A. Oh, you went forward. This is also the
7 exterior. It's a close-up. And the following picture is
8 the interior of that same part.

9 Q. Okay. And let's talk a little bit about the
10 discoloration that is seen around the bottom of the hole
11 in all three photographs 802, 803, and 804.

12 A. So the discoloration has the color of corrosion
13 product. And I did not analyze whether that corrosion
14 product was formed on the layer of metal beneath the
15 galvanized coating or came from some of the disturbed
16 metal that had been under the wear, had been subject to
17 the wear process.

18 So it could be corrosion staining from the
19 material that is gone now or it could actually be
20 corrosion product from the underlying material because
21 the zinc coating has been disturbed and the material
22 underneath is corroding. I did not complete that
23 analysis.

24 [Exhibit 805 introduced
25 as evidence.]

26 BY MR. NOEL:

1 Q. All right. Let's move on to 805.

2 A. 805 is the bracket of the item seven jumper arm
3 as received in the laboratory. Again, there's uniformed
4 diameter of a hole over a portion of the circumference of
5 the circle and then a deformed region underneath that.
6 Also you can see on the exterior of the bracket that
7 there are those arced wear patterns worn into the
8 substrate material. In this region the zinc coating has
9 been completely worn off.

10 [Exhibit 806 introduced
11 as evidence.]

12 BY MR. NOEL:

13 Q. All right. And Exhibit 806.

14 A. That is a close-up of those arced patterns that
15 indicate --

16 Q. What is the significance of the arced patterns?

17 A. It indicates rotational body-on-body wear.

18 Q. And we are talking about these, for lack of a
19 better term, ridges running across there; correct?

20 A. Yes.

21 [Exhibit 807 introduced
22 as evidence.]

23 BY MR. NOEL:

24 Q. All right. And 807.

25 A. 807 is the interior of that same bracket showing
26 the other side of the hole.

1 Q. Is there any significance -- I forgot to ask --
2 between -- on the outside we have all these ridges and
3 arced ridges, but it doesn't appear to have that on the
4 inside.

5 A. The significance is that the pressure of
6 whatever is hanging onto it was tilted one way versus
7 another way. But I don't have structural information to
8 quantitate that description. So whereas on the interior
9 the zinc coating is not disturbed and there's corrosion
10 staining on the exterior, that zinc coating has
11 completely been worn away. It just means that the
12 contact area was tighter, a heavier load tilted onto the
13 exterior of the bracket and then onto this interior of
14 the bracket.

15 [Exhibit 808 introduced
16 as evidence.]

17 BY MR. NOEL:

18 Q. All right. So let's move on to 808.

19 A. This is the left phase from the 24/199, left
20 phrase jumper arm, which is item eight in the laboratory.

21 [Exhibit 809 introduced
22 as evidence.]

23 BY MR. NOEL:

24 Q. And 809. It should be number 55 on the MAC
25 code.

26 A. Fifty-five is the exterior of the runner hole

1 again showing the deformed material around the lip of the
2 worn region of that hole.

3 [Exhibit 810 introduced
4 as evidence.]

5 BY MR. NOEL:

6 Q. And 810.

7 A. It is the opposite side of that runner hole
8 again showing a great deal of material that has been worn
9 and deformed and folded over the edge of the hole.

10 [Exhibit 811 introduced
11 as evidence.]

12 BY MR. NOEL:

13 Q. Photograph 811.

14 A. Do you have a MAC photograph reference?

15 Q. Should be 57, I believe.

16 A. This is the hole in the bracket on item eight.
17 This is the exterior of that hole. We're kind of looking
18 down at it at a little bit of an angle, not straight on.
19 This shows the deformed material around the edges, the
20 worn region of the hole.

21 Q. Any significance to this shininess of this
22 material on the edge?

23 A. It did not retain a corrosion product as I
24 received it in the laboratory. So I can't tell you
25 whether the corrosion product was ever on that edge or
26 not, whether it was recently worn or whether it was

1 corroded and then removed during the shipping process.
2 Sometimes that happens.

3 [Exhibit 812 introduced
4 as evidence.]

5 BY MR. NOEL:

6 Q. All right. And 812.

7 A. This is the opposite side of that same hole in
8 that same bracket showing again the disturbed material
9 that is folded over onto the exterior of that worn region
10 of the hole.

11 [Exhibit 813 introduced
12 as evidence.]

13 BY MR. NOEL:

14 Q. All right. Moving on to Exhibit 813.

15 A. This is laboratory item number nine. It's the
16 right runner from the 27/222 transposition tower.

17 Q. Okay. And did you do compositional analysis on
18 this arm?

19 A. I did compositional analysis of coating of both
20 the bracket and jumper arm and the base material of the
21 bracket and the jumper arm.

22 Q. And what did you find in your compositional
23 analysis of those items?

24 A. These are also both galvanized plain carbon
25 steel.

26 [Exhibit 814 introduced

1 as evidence.]

2 BY MR. NOEL:

3 Q. And 814.

4 A. This is the exterior of the runner, the hole in
5 the runner. Again by "exterior" I mean the L bracket,
6 the original runner arm L bracket, the exterior of the L.
7 And this again shows the deformed material around the
8 worn portion of the hole.

9 [Exhibit 815 introduced
10 as evidence.]

11 BY MR. NOEL:

12 Q. All right. And 815.

13 A. It's the opposite side of that hole in the
14 runner.

15 [Exhibit 816 introduced
16 as evidence.]

17 BY MR. NOEL:

18 Q. 816.

19 A. This is the hole in the bracket on the item nine
20 runner, attached to the item nine runner again making it
21 obvious that the holes don't line up.

22 [Exhibit 817 introduced
23 as evidence.]

24 BY MR. NOEL:

25 Q. And 817.

26 A. Exhibit 817 is the exterior of the bracket hole

1 for that particular runner.

2 Q. And what is significant in these photographs?

3 A. There is deformed material forming a lip at the
4 edge of the deformed region of the hole.

5 [Exhibit 818 introduced
6 as evidence.]

7 BY MR. NOEL:

8 Q. And 818.

9 A. It's the opposite side of that hole in that
10 bracket. Again, it's item nine of that runner.

11 Q. And again on 817 is there a difference in the
12 wear patterns below the hole on 817 and 818 or is it just
13 the angle of the photograph?

14 A. On this particular bracket there was some heavy
15 corrosion product in this region that I did not remove to
16 examine whether or not those -- the contact area would
17 have received more load on the interior or the exterior
18 of that hole.

19 [Exhibit 819 introduced
20 as evidence.]

21 BY MR. NOEL:

22 Q. Okay. All right. Moving on to 819.

23 A. This is laboratory item number ten, the left
24 runner, the left phase jumper arm from the Transposition
25 Tower 27/222 with the runner and the bracket attached.

26 Q. Oh, did you do compositional analysis on these?

1 A. I did compositional analysis on both the runner
2 and the bracket, and both components are galvanized plain
3 carbon steel.

4 [Exhibit 820 introduced
5 as evidence.]

6 BY MR. NOEL:

7 Q. And 820.

8 A. This is the hole in the runner, the exterior of
9 that hole showing deformed material folded over the lip
10 of the outside of that hole.

11 [Exhibit 821 introduced
12 as evidence.]

13 BY MR. NOEL:

14 Q. 821.

15 A. The opposite side of the hole in the runner
16 again showing the deformed material folded over the edge
17 of the lip of the elongated deformed part of that hole.

18 [Exhibit 822 introduced
19 as evidence.]

20 BY MR. NOEL:

21 Q. 822.

22 A. This is the bracket from that particular runner
23 that was attached to this particular runner again showing
24 that the holes do not line up.

25 [Exhibit 823 introduced
26 as evidence.]

1 BY MR. NOEL:

2 Q. 823.

3 A. This is the exterior hole in that bracket with
4 the wear pattern and the folded material over the edge of
5 the elongated part of that hole.

6 [Exhibit 824 introduced
7 as evidence.]

8 BY MR. NOEL:

9 Q. And 824.

10 A. This is the opposite side of the hole in that
11 bracket. This is the interior surface of that bracket.

12 Q. Any other significant features in this
13 photograph?

14 A. This is quite -- we have quite deeply defined
15 ridge arced curvature deformation ridges on this side.

16 Q. Now, on the jumper arm, the runner, and the
17 bracket itself on item number ten, which is the left
18 jumper arm from 27/222, did you find in those visual
19 examinations or your compositional analysis or any other
20 examinations that you did any defects in the items?

21 A. I found no material or manufacturing defects in
22 any of the runners or the brackets from the jumper arms
23 that I examined.

24 Q. And I guess I should have you define the
25 difference between material and manufacturing defects.

26 A. So that's a good point. Materials are

1 manufactured and then they form the parts.

2 So by my calling out the two different ones
3 there, there can be flaws in the actual alloy of the
4 material such as inclusions or voids that reduce the
5 mechanical properties of the material. And that's what I
6 referred to just now as material defects.

7 Manufacturing defects might be something like a
8 tool slipped, created a gouge that creates a notch that
9 would be more sensitive to fracture than a pristinely
10 machined surface.

11 So what I'm saying is I don't see anything
12 that's intrical to the bulk of the material and I don't
13 see any manufacturing defects from the forming of that
14 material into a shape.

15 Q. So no defects on either the jumper arm or the
16 brackets?

17 A. Except for the defamiation that we see at the
18 holes.

19 Q. And what was your opinion would have caused that
20 defamiation?

21 A. This defamiation appears to be body-on-body wear
22 at the holes on both the runners and the brackets.

23 Q. Going back to item five, which is the partial
24 hook off of the left phase of 27/222, did you find any
25 defects in your manufacturing or material defects in that
26 hook?

1 A. I did not find any material or manufacturing
2 defects in that hook that would be contributed to the
3 separation. I didn't find any, but I didn't look at
4 other parts other than that separated surface.

5 Q. And going back talking about number five and the
6 compositional analysis, were you able to do a
7 compositional analysis of the zinc galvanizing materials?

8 A. Yes.

9 Q. And what did you find with number five?

10 A. That it was zinc galvanized. I have the record
11 of the analysis if I can refer to it now.

12 Q. Absolutely.

13 A. What other impurities might be present. This
14 may or may not be present as impurities in the zinc
15 itself that was applied. It could be a manufacturing
16 procedure that resulted in the other elements that are
17 present when analyzing the zinc coating.

18 So item five the zinc coating contains small
19 amounts -- the zinc coating process or the zinc coating
20 itself contains a small amount of lead and cadmium.

21 Q. And how about the compositional analysis on the
22 jumper arm and the brackets? The bracket on number ten,
23 the jumper arm by the left phase of 27/222?

24 A. None of the runners or brackets contained any
25 cadmium. They do contain a small amount of lead when
26 measured when the coating is compositionally analyzed.

1 Q. All right. Okay. So now let's move on. We've
2 talked about compositional and visual examination and
3 some about the others.

4 You also said you did hardness testing on the
5 items; is that correct?

6 A. Yes.

7 Q. Explain to us what is hardness testing.

8 A. So hardness testing measures the resistance to
9 indentation penetration of a material. So a point
10 indenter is pressed into a material with a light load and
11 then the load is increased and then removed. And the
12 amount of permanent defamation that is left behind is
13 representative of the hardness of the material. That is
14 the resistance to scratching, actually resistance to
15 penetration defamation.

16 There's several different types of hardness
17 tests that can be conducted. The Rockwell Test is
18 performed with one of two different types of indenter.
19 Hard materials are tested with a diamond indenter.
20 Softer materials are tested with a spherical tungsten --
21 sorry, a spherical steel carbide ball. And they are --
22 either one of these indenters, depending on the hardness
23 of the material, goes through the process that I just
24 described; a uniform application of a minor load, then an
25 application of major load, then the removal of the major
26 load back to the minor load. And the difference in that

1 penetration depth describes the hardness of the material.

2 By measuring -- by using this very regular test
3 to compare materials, you can compare the resistance to
4 pen -- resistance to indentation of different materials.
5 So you evaluate one material compared to the other.

6 Q. Why is the hardness of a metal significant in
7 your analysis?

8 A. Hardness is a demonstration of the mechanical
9 properties and the material structural resistance to
10 defatation.

11 Q. Okay. But why would that be important?

12 A. The hardness demonstrates several different --
13 has a contribution toward the wear resistance and it also
14 has a contribution or it's in the gift of the tensile
15 strength of the material.

16 Q. So we have up on the board an excerpt from
17 page 2 of your report which is a chart dealing with the
18 Rockwell hardness measurements that you did.

19 A. Yes.

20 Q. And if you could please explain to us that chart
21 on page 2.

22 A. So I measured the hardness on every runner and
23 every bracket on coupons sectioned from those pieces and
24 I also measured the hardness on three of the hooks. Our
25 subject hook item five was separated. Item one is the
26 other cast iron hook. So that's the same type of

1 material as the item five hook. And I used item two as
2 somewhat a representative of the other steel hooks.

3 Doing a hardness test on the hook requires
4 sectioning because the hooks themselves are complex
5 geometry and a hardness test requires support of a flat
6 surface on the opposite side from the flat surface that
7 received the indentation.

8 So I need two opposing parallel flat surfaces.
9 There are no such regions on those hooks. So I had to
10 section those hooks in order to perform the hardness
11 test. I also used those sections for metallography. And
12 in the interest of not damaging the rest of the evidence
13 by cutting it up we only tested these three hooks, but
14 every runner and bracket was tested.

15 Q. All right. I'm going to ask you to define a
16 couple of terms that you used talking about sectioning.
17 What do you mean by sectioning?

18 A. I cut a piece off.

19 Q. And you used the term "coupon."

20 A. Coupon is a small section, a small regular
21 section.

22 Q. All right. So what's the difference between
23 Superficial Rockwell HR30TW and Rockwell HRBW?

24 A. Rockwell HRBW is commonly used throughout
25 manufacturing. Steels -- structural steels in particular
26 fall in a range of hardness. When they are annealed,

1 they are relatively soft and measured with the spherical
2 indenter I described. When they are hardened, they're
3 measured with the diamond indenter that I described.

4 The Rockwell B scale, the HRBW in the right-hand
5 column, describes tests performed with a spherical
6 indenter with 30 kilogram minor load and 100 kilogram
7 major load.

8 Q. Ask you define the term you used "annealed."

9 A. So getting into the microstructure of the steel,
10 steel based on its carbon content may have the ability to
11 be hardened to a point that changes its mechanical
12 property. It's changing the microstructure of the
13 material. An annealed steel has a uniform microstructure
14 that has none of the mark sites that creates a very hard
15 resistance to penetration.

16 Q. All right. And what about -- what is the
17 Superficial Rockwell HR30TW?

18 A. So on samples that are not large enough to
19 receive the heavy load of the 100 kilograms that is
20 applied by the HRB scale, there is a uniform test that is
21 performed with lower loads.

22 So it would be -- I think I might have misspoke.
23 The minor --

24 Let me finish this idea first. The superficial
25 test applies a smaller minor load and a smaller major
26 load than the Rockwell B test. I believe that's a 3

1 kilogram minor load and 30 kilogram major load.

2 My thought process on the Rockwell Hardness test
3 is -- I can't remember the minor load of the Rockwell HRB
4 test right at the moment, but it will come to me.

5 So the Superficial Rockwell hardness values that
6 are listed in the middle column are not directly
7 comparable to the Rockwell values that are listed in the
8 right-hand column because I can't use the same testing
9 conditions. So they're not directly comparable because
10 they're not the same compositions, but within the column
11 they are comparable.

12 So the values of the HR30TW for the three
13 different hooks are reported as item one 61.0 plus or
14 minus 2.6. The 2.6 is the measurement uncertainty with
15 97 percent statistical confidence. I can tell you that
16 that 61 is correct within 2.6 hardness points on either
17 side of the 61 value.

18 So from 59 -- so from 58.4 to 63.6, if I did the
19 math right here, that hardness range -- that hard value,
20 the real hard value does fall within that range. That
21 was calculated by taking into account any uncertainty of
22 measurement from the test equipment, variation in the
23 values that I entered on the particular piece, but it
24 cannot take into consideration the difference in across
25 the entire hook that's only measuring one location.

26 So of the values that I measured I have regular

1 hardness of 61 on item one and 59.1 on item five. So you
2 can see that within that range of measurement uncertainty
3 item one and item five are in the same range. So they do
4 not differ in hardness.

5 Q. And those are the two low carbon cast iron
6 hooks; correct?

7 A. Those are not low carbon. Those are malleable
8 cast iron.

9 Q. Okay. Malleable cast iron.

10 A. Yeah. And item two is the steel. You can see
11 from the value listed there, the 81.1 plus or minus 2.5,
12 that the measurement uncertainty even if I apply that
13 range, it's still much harder than the item one and item
14 five.

15 So what that hardness value tells you is that
16 the item one steel -- or excuse me. Item two steel hook
17 is harder than the item one and item five cast iron
18 hooks. But what it tells me as a metallurgist is that
19 item two steel hook is still a relatively soft steel.
20 It's still being used in its annealed state which is a
21 condition of -- that offers mechanical properties that
22 are good ductility and good toughness for a structural
23 application as an appropriate component for a structural
24 application.

25 The item seven runner -- or all of the runners
26 and all the brackets were measured on the Rockwell B

1 scale. And you can see differences in hardness among
2 those materials, but they all fall within 65 to 81 points
3 of Rockwell B hardness, which again indicates those are
4 annealed steels. Those are soft steels. They have not
5 been hardened. And they are appropriately ductile and
6 tough for structural application.

7 Q. All right. So item one is the broken hook from
8 the left phase of 27/222; correct?

9 A. Item one is the right phase.

10 Q. I'm sorry. Item five is the broken hook from
11 27/222.

12 A. Yes.

13 Q. And item ten is the jumper arm runner from the
14 left phase of 27/222; correct?

15 A. Yes.

16 Q. And the Superficial Rockwell hardness for item
17 five is 59.1 plus or minus 2.6; correct?

18 A. Yes.

19 Q. And the hardness -- the Rockwell Hardness B for
20 the runner, the jumper arm is 73.8 plus or minus 2.9 and
21 for the bracket it's 80.6 plus or minus 3.3. Correct?

22 A. Correct.

23 Q. Now, just looking at these as a layperson, it
24 would appear that there's a big difference in the
25 hardness between the hook and the holes.

26 A. That would be an inappropriate comparison to

1 make.

2 Q. And can you explain for the jury why.

3 A. So within each column feel free to compare the
4 values. Between the columns do not compare the values.
5 This is a different scale of hardness.

6 Consider, if you will, Farenheit versus Celsius
7 degrees. Okay. A degree -- the size of a degree is
8 different on each of those scales. At minus 40 degrees
9 Farenheit and minus 40 degrees Celsius those scales match
10 up. But if you raise the temperature, one cell gets
11 higher faster with the same temperature change so that by
12 the time you reach the boiling temperature of water, you
13 have 212 degrees Farenheit and only 100 degrees Celsius.

14 The same type of thing is happening between
15 those two scales. So at about 50 Superficial Rockwell
16 Hardness 30TW and about 50 Rockwell HRBW, 50 and 50 is
17 about the same. But by the time you get to 100
18 Rockwell B you're only at about 83. I think it's 83
19 Superficial Rockwell. So you can't directly compare
20 those values between those two columns.

21 Q. Is there a formula to convert Superficial
22 Rockwell HR30TW results to Rockwell HRBW?

23 A. There is an ASTM specification for doing such
24 conversions that contains many tables for different
25 materials that allow estimates of conversions from one
26 scale to another scale as long as the materials are the

1 same.

2 So in this case someone could take the value of
3 item two and convert the superficial value into an HRBW
4 scale using the estimation that is documented in -- it's
5 ASTM E140 is the specification designation because they
6 are the same type of plain carbon steel.

7 It would be -- it may be appropriate. It may be
8 not appropriate. And the appropriateness could be
9 analyzed by someone who knows the microstructure of the
10 materials to compare item one and item five through that
11 ASTM specification because those are different materials
12 than the runner materials. That malleable cast iron is a
13 significantly different category of material than the
14 plain carbon steel.

15 Q. All right. And did you do those conversions?

16 A. I did not.

17 Q. So basically to put it in layman's terms, we're
18 comparing apples to oranges here. Is that an appropriate
19 analogy?

20 A. We -- we can use that.

21 Q. Now, does the -- we talked a lot this morning
22 about body-on-body wear. Does differing hardnesses of
23 metal affect body-on-body wear?

24 A. Hardness affects wear, yes.

25 Q. And how so?

26 A. So the harder the material the more resistant it

1 is to wear.

2 Q. Okay. So, for instance, five has the lowest of
3 the three which is our hook that broke?

4 A. Yes.

5 Q. One, which is the hook that was extensively
6 worn, is the second lowest; correct?

7 A. Yes.

8 Q. And those two hooks wore significantly more than
9 the other hooks which were harder or at least the -- the
10 example that we used was harder?

11 A. That's true, but it's not a conclusion that I
12 would draw only from the hardness differences. There may
13 be other significant differences in the geometry of the
14 hook design or the loading application or the duration of
15 service that may have contributed to the difference in
16 the depth of the penetration there that is due to wear.

17 Q. But the hardness itself, I guess, is not --
18 these aren't defective? These are --

19 A. Oh, absolutely not. These are appropriate
20 hardnesses for structural applications that don't
21 anticipate impact.

22 Q. Right. Good point.

23 Your last statement talked about structural
24 applications that do not anticipate impact and that these
25 hooks weren't defective; that they had the appropriate
26 hardness.

1 Could you explain what you mean by "anticipate
2 impact" and how that works.

3 A. So the materials that are here in this form
4 are -- have the hardness that is typical for applications
5 that require good ductility and toughness.

6 And I think I might have misspoke when I said
7 impact. That wasn't a good way to describe this. So
8 being tough means it would have good reasons for impact.
9 So I'm sorry about using a term that wasn't exactly what
10 I mean to say.

11 Q. What is ductility?

12 A. Okay. Ductility is the ability to absorb
13 defatation when I use it in this context. So as a
14 material, as a steel is either alloyed or heat treated to
15 harder and harder hardness levels, the steel would become
16 more resistant to wear but also more susceptible to a
17 brittle catastrophic failure. So it may not be the right
18 material for a load that is applied in an impulse
19 application.

20 Q. Were these-- the metal, the composition of
21 these hooks -- I don't want to use the term correct but
22 appropriate for something that is simply going to hang
23 and hold something?

24 A. So that is demonstrated by the evidence. So can
25 I explain this picture that you've brought up.

26 Q. That's why I brought it up.

1 A. So although these did not -- the item five hook
2 did not resist the wear that it had actually occurred,
3 had the wear not started and penetrated almost all
4 through the hook, the hook would have been perfectly
5 adequate to retain this load that is hanging from it.
6 And that is obvious because I define this as overloaded
7 fracture.

8 So the wear had been through the surface of this
9 hook to almost the entire cross-section -- through almost
10 the entire cross-section. And at all the time that this
11 slot was being worn into this hook, the hook supported
12 the load that was on it until the groove penetrated to
13 the very last bit of this hook.

14 So in reality from this picture, you can see
15 that it only took this (indicating) much of a net section
16 of hook material to hold up the insulation string on the
17 transposition tower for some period of time. It didn't
18 hold it forever because then it broke, but it had to get
19 through all of this (indicating) before it broke. So
20 this hook was strong enough even at half its
21 cross-section to adequately hold the load that was
22 applied to it. And that's -- that information is here.

23 So the hook was strong enough. The wear was the
24 reason it failed.

25 Q. And so moving on to 787.

26 A. So this hook is strong enough. It was retaining

1 its load. Even with this -- only this (indicating) net
2 cross-section of material supported the load of the
3 insulator string -- insulation string on the
4 transposition tower.

5 MR. NOEL: I believe that's all I have.

6 Does the jury have any questions?

7 [Conferring off the record.]

8 MR. NOEL: All right. We have a few questions
9 here from the jurors, written questions that I'll read to
10 you.

11 And before I forget it, I'm sure that once
12 you're done with your testimony here in a few minutes,
13 you're probably going to have a few questions from our
14 court reporter on how to spell some things.

15 So once we excuse you, if you could just hang
16 around for a few minutes. And I'm sure she'll have
17 plenty of questions for you.

18 BY MR. NOEL:

19 Q. "Can cast iron be considered steel?"

20 A. That is not the terminology that is used in the
21 metallurgy discipline.

22 Q. "Is steel stronger or weaker than cast iron?"

23 A. So strength is defined in several different
24 ways. Tensile strength and fracture toughness are all
25 different properties. If we're talking about the basic
26 concept of strength as in tensile strength, steel is

1 stronger in most situations than cast iron.

2 If we're talking about compressive strength,
3 that changes. But in this case, we are dealing with
4 tensile forces, things pulling against each other, not
5 pushing on each other.

6 Q. "Does cast iron or steel wear more quickly?"

7 A. There's several factors that go into wear
8 rights. So it's not only the material. It's the
9 geometry. It's the loading. It's the oscillation. It's
10 anything else in the atmosphere that can break up surface
11 contact, either interfere with surface contact or cause
12 materials to adhere to each other so that the wear is
13 increased.

14 So there's more factors than just the wear. In
15 general, the harder the material the less easily it is
16 worn. Again general but all of those other factors go
17 and come into play.

18 Q. And I guess I cut off the question here. It
19 goes on "Does cast iron or steel wear more quickly when
20 it's subjected to the same stresses?"

21 A. So again, the atmosphere matters, geometry of
22 the part matters. So in these hooks we have two
23 different geometry. Well, actually we have three
24 different geometry. But the steel hooks are similar in
25 geometry to each other and the cast iron hooks have the
26 little rounder cross-section. And that makes a

1 difference in this case.

2 So just by looking at the depth of penetration
3 in the cast iron hooks versus the depth of penetration in
4 the steel hooks we can't determine a duration more or
5 less of exposure to the oscillation just from the
6 material differences. However, the cast iron hooks prove
7 to be a softer material than the one steel hook that I
8 measured. And so if given -- if the geometry is given
9 the same structure, I would expect the cast iron hooks to
10 wear faster than the steel hook under the same
11 conditions.

12 Q. All right. "Given the amount of wear visible on
13 Exhibit 777 that we pulled up on the big board, could
14 close examination of the area of the hook and its runner
15 have anticipated the hook's failure?"

16 A. Any structural component should be inspected for
17 damage. One of the other aspects of my investigation
18 here, my contribution of examination including looking
19 through photographs that were supplied to me from the
20 disassembly process were aerial photographs of assembled
21 components as they were on the towers. And in some of
22 those photos there is visible space between the top of
23 the hole in the runner, the original hole in the runner,
24 and the top of the hook. So the visibility of that
25 material change is evident from a distance.

26 Can you read the question again. Should it

1 be --

2 Q. Yeah. "Could close examination of the area of
3 the hook and its runner have anticipated the hook's
4 failure?"

5 A. Close examination of the hook and its runner
6 immediately before failure would have revealed that there
7 was a problem.

8 Q. And when you're talking about looking at
9 pictures of the hooks and the runners or jumper arms in
10 place before they were disassembled, are you talking
11 about the aerial photographs that were taken by
12 Investigator Nick Moore back on January 31st, 2018?

13 A. I have several dates that were involved.

14 Q. 2019. Yes, 2019.

15 All right. "In this context what would you
16 interpret or what would you define the term 'immediately
17 before failure'?"

18 A. After some penetration of -- after penetration
19 into the groove. I would suspect that once wear began,
20 if the wear penetrated across the hook a small amount,
21 that that would be difficult to notice from a distance.
22 If you knew what to look for, there's always inspection
23 of manufactured parts. If you know what to look for, you
24 can find things faster. That's what happens.

25 But by the time the wear had penetrated down to
26 halfway through the cross-section of the hook, there

1 would be a large gap. Even if -- even if the runner was
2 not also wearing, there would be a visible gap between
3 the interior diameter of the original runner hole and the
4 top of the hook. So to somebody else -- for somebody
5 else to decide whether that is telling enough to go
6 inspect it closer.

7 For me "close inspection" means under a
8 microscope. So I can't do that. I wouldn't be able to
9 tell you if you can tell if that -- I can't tell you the
10 point on which that damage progression would be visible
11 while in place on the transposition tower.

12 Q. And to make sure I got this right earlier, this
13 concept of body-on-body wear is a well-known and
14 well-documented and long-known phenomenon; correct?

15 A. The concept is, yes.

16 Q. So it wouldn't be a surprise that when you have
17 two metals rotating back and forth against each other,
18 that you would have body-on-body wear?

19 A. It's -- the answer to that question is also
20 present in the evidence with the application of the
21 brackets to the runners. So the hole in the bracket -- I
22 mean, the hole in the runner elongated and a modification
23 was made by adding a bracket and then the hole in the
24 bracket elongated too. So wear was evident when that
25 modification to the end of the runner was made.

26 Q. And probably we should go back. You talked

1 about looking at several different kinds of photographs
2 and lots of different parts and pieces earlier. You
3 should probably point out when you first were assigned to
4 this, one of the first things you did was you actually
5 flew out here from Washington D.C. and met with my team
6 and reviewed all the photographs and actually removed --
7 reviewed all the physical evidence at the evidence
8 facility; correct?

9 A. I did not closely examine all of the physical
10 evidence at the facility, but the purpose of a lab
11 examiner to come out to the site is to determine what
12 evidence is appropriate to send to the laboratory for
13 further examination, yes.

14 Q. And as part of that you reviewed photographs of
15 other towers -- for instance, 24/199, 32/260, 35/281 --
16 and requested that we have all the parts removed from
17 those towers and preserved for analysis also; correct?

18 A. It's correct that I did look at other
19 photographs and identified additional parts. But you
20 have now mentioned several towers, and I would have to
21 make sure that I have the right tower numbers.

22 Q. Right. Well, we talked today about 24/199?

23 A. Yes.

24 Q. And that was one of the ones that you identified
25 based upon the photographs and said "Get me the evidence
26 off of those -- that tower."

1 A. That would provide comparable pieces of evidence
2 for analysis, yes.

3 Q. All right. If you were aware that the estimated
4 age of the pieces you examined was in excess of 90 years,
5 would that information affect your professional opinion
6 of the remaining durability of any of the items you
7 examined?

8 A. My role isn't to predict the remaining
9 durability of the items. My role is to only report the
10 wear mechanisms that I see.

11 Q. Okay. "In your professional opinion could
12 structures of metal of any kind manufactured 100 years
13 ago meet the manufacturing practices and standards of
14 current metal structures?"

15 A. Again, that's an opinion. I'm a little more
16 willing to offer the opinion. There has been quite a lot
17 of improvement in material -- structural materials and
18 alloy and technology. So although some of the standards
19 today are wide open, there are better materials and more
20 structural knowledge available today than there were --

21 What did you say? 100 years ago?

22 Q. One hundred years ago.

23 And I should point out, your Ph.D. is actually
24 partially in mechanical engineering; correct?

25 A. No, it is not. It's material sciences and
26 engineering.

1 Q. Okay. I thought it was mechanical science and
2 engineering. I misunderstood.

3 All right. "What is the significance of the
4 speckling on 882?"

5 I'm sorry. Exhibit 822. I'm sorry.

6 Here we go. I'm guessing this (indicating)
7 white would be what is --

8 A. That just looks like an irregularity in the
9 corrosion coating. Sometimes -- so this bracket is zinc
10 coated, and yet there's corrosion evident over most of
11 the surface. So some of the zinc coating has
12 deteriorated in the parts that look orange. Some of it's
13 worn away. And there's deposits of exterior corrosion
14 and some other things in the base material down in this
15 (indicating) region of wear under the hole elongation.

16 So these areas are either areas where something
17 has impacted and abraded the corrosion away and then
18 revealed the base metal or something has spattered onto
19 the material and protected the material from corroding.

20 So it's just an irregularity in the finish. I
21 don't have a good explanation for that, but it wasn't
22 unexpected. It's not unexpected for structural
23 components that are out in the weather to come back with
24 regular amounts of corrosion on different regions and
25 surfaces.

26 Q. "Can you describe in detail the complete chain

1 of custody from the Sacramento FBI field office and
2 sending with your lab."

3 So basically give us the basic explanation.

4 A. I can describe the general process that we
5 normally use, but I don't have the specifics for this
6 evidence.

7 So when an FBI field office retains their
8 evidence, they give the evidence the 1B numbers in order
9 to maintain traceability in our documentation system,
10 "our" being the overall FBI organization. They then
11 package that evidence up and send it FedEx to the
12 laboratory. The FedEx transfer to the shipping
13 organization is documented and the FedEx tracking number
14 becomes the chain of custody identifying number. And
15 when that arrives at the laboratory, that same FedEx
16 number is identified.

17 So that is in FedEx's possession under that
18 tracking number until it arrives at the laboratory. And
19 then at the laboratory the lab chain picks up. So
20 there's a chain of -- a documented chain of custody to
21 the shipping company and from the shipping company to us.
22 And in between it's on the truck under that -- or in the
23 shipping company's possession during that transition
24 phase.

25 We also inspect the packaging so we know the
26 packaging components when they leave the -- described by

1 the submitting agency, and we record that when we receive
2 it at our agency. So we know if anything has been opened
3 in the interim. And that is our standard operating
4 procedures.

5 Other evidence is also delivered in other ways.
6 People can drive in the evidence and make a hand-to-hand
7 transfer would be one other way.

8 Q. So each one of these parts is marked by each
9 agency; correct?

10 A. Either the part or the packaging depending on
11 the size of the part, yes.

12 Q. Right. So like we're looking at Exhibit 819
13 now. It's written "27/222 left phase and left runner"
14 and then in another part of it it's marked, I believe,
15 with the FBI numbers.

16 A. Either this part or the packaging would be
17 marked with the FBI 1B number, yes.

18 MR. NOEL: Okay. See if I can find another
19 example. All right. Okay. I think we got it covered.

20 I should also probably point out that to tie the
21 bow around all of this we will be hearing in the next few
22 weeks from FBI Special Agent Matt Catalano who will
23 testify about picking these things up, taking custody of
24 them from Captain Tom Kluge, and transporting them and
25 putting them in the FBI evidence system.

26 And you will get to hear again

1 from Captain Kluge about how he took these out of
2 evidence, what he did with them, prepped them and handed
3 them off to Agent Catalano. But that's to come in the
4 future.

5 THE WITNESS: One of the advantages of FBI
6 examiners going to the field and saying "Hey, I want that
7 piece of evidence and that one and I can't do much with
8 that one and please send it to me" is I get my eyes on
9 the evidence and know what to expect. So the evidence
10 that arrived to me was what I expected.

11 BY MR. NOEL:

12 Q. Right. And, for instance, let's see. Item five
13 was something you had already seen in the field; correct?

14 A. Yes.

15 Q. And this is the same thing and the same thing
16 with item ten where items that you saw in the field and
17 were able to say when you got them "These are the same
18 things that I looked at"?

19 A. Yes.

20 Q. All right.

21 A. I would like to elaborate one more point on
22 chain of custody. Although I don't have the chain of
23 custody for this evidence with me, it does exist at the
24 laboratory. I just don't have that today.

25 Q. Right. And this is the standard operating
26 procedure for --

1 A. Yes.

2 Q. And it's not like in the movies. We don't
3 handcuff the evidence to somebody and have them carry it
4 onto a plane and keep it with them?

5 A. That sometimes happens.

6 Q. All right. Item 778 through 782. Let's start
7 with 778. "Do you know when the hook was manufactured
8 and installed?"

9 A. I do not.

10 Q. And then the same question for 787 through 792.

11 A. I cannot detect -- determine that from the
12 markings on the hooks or from the manufacturer, the
13 manufacturing from composition or from the manufacturing
14 style.

15 Q. "Do you believe that PG&E should use a different
16 bracket and hook made of different materials?"

17 A. That would be a question to ask a structural
18 engineer. As a metallurgist this material is very
19 strong. It -- it's appropriate material used often for
20 structural applications.

21 MR. NOEL: That's it. Anything further?

22 We have no further questions for you. Madam
23 foreperson will be reading you an admonition.

24 GRAND JURY FOREPERSON: Dr. Marvin, you are
25 admonished not to discuss or disclose at any time outside
26 of this jury room the questions that have been asked of

1 you or your answers until authorized by this grand jury
2 or the Court. A violation of these instructions on your
3 part may be the basis for a charge against you of
4 contempt of court. This does not preclude you from
5 discussing your legal rights with your own attorney.

6 Dr. Marvin, what I have just said is a warning
7 not to discuss the case with anyone except the Court,
8 your lawyer, or the district attorney.

9 Do you have any questions?

10 THE WITNESS: No.

11 GRAND JURY FOREPERSON: Thank you for your time
12 today.

13 [DISCUSSION OMITTED.]
14

15 MR. NOEL: Oh, move the exhibits into evidence.
16 I'm sorry.

17 GRAND JURY FOREPERSON: Okay.

18 [Exhibits 770 through 824
19 admitted into evidence.]

20 GRAND JURY FOREPERSON: And we will meet again
21 on Tuesday at 8:30.

22 MR. NOEL: All right. Thank you, Everybody.

23 GRAND JURY FOREPERSON: Thank you.

24 [Matter adjourned at 11:26 a.m.]

25 --oOo--
26

COURT REPORTER'S CERTIFICATE

This is to certify that I, Lisa McDermid Welch, a Certified Shorthand Reporter of the State of California was present at the time and place the foregoing grand jury proceedings were had and taken in the within matter; and that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings; and afterwards caused my said shorthand writing to be transcribed into typewriting; and the foregoing pages, beginning at the top of Page 1 to and including Page 90 hereof, constitute a full, true, accurate, and complete record of the proceedings.

DATED: This 6th day of June, 2022.

Lisa McDermid Welch

LISA MCDERMID WELCH, CSR, RPR
CSR LICENSE NO. 10928

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APPEARANCES:

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OROVILLE, BUTTE COUNTY, CALIFORNIA

JANUARY 14, 2020; 8:30 a.m.

(Confidential Special Grand Jury Hearing Proceedings)

[Proceedings omitted.]

[The grand jury comes to order in Courtroom 9 at 9:06
a.m.]

[Discussion omitted.]

[Grand jury role call omitted.]

MR. NOEL: We will get the first witness.

[Witness enters the courtroom.]

GRAND JURY FOREPERSON: Mr. Stinnett, before you have
a seat, would you please raise your right hand to be
sworn?

Mr. Stinnett, do you solemnly swear that the
evidence you shall give this -- in this matter pending
before the grand jury shall be the truth, the whole truth
and nothing but the truth so help you God?

THE WITNESS: I do.

GRAND JURY FOREPERSON: Thank you. Have a seat,

1 please.

2

3

EXAMINATION

4

BY MR. NOEL:

5

Q. Before we begin, Mr. Stinnett, could you please
6 state your full name, spelling your last name for the
7 record?

8

A. Charles Newton Stinnett, S-T-I-N-N-E-T-T.

9

Q. Okay. Are you currently employed?

10

A. No, sir.

11

Q. Were you previously employed?

12

A. Yes, sir.

13

Q. By whom were you previously employed?

14

A. Pacific Gas and Electric.

15

Q. In what capacity?

16

A. I'm sorry?

17

Q. In what capacity?

18

A. At the time of my retirement, I was -- my title
19 was manager of Transmission System Reliability.

20

Q. How long were you with PG&E?

21

A. I worked for PG&E for 44 years, and I came back
22 on November 15th of 2018 at the request of the company to
23 assist them in the Camp fire to help them identify high
24 risk fire component failures, and I did that for one year.
25 My last date was November 15th of 2019.

26

Q. Can you walk us through PG&E career?

1 A. I hired on with PG&E in 1973 as a groundman,
2 which is a beginning classification. And after one year
3 of working on the ground, then I entered the master
4 apprenticeship program to be a journeyman, line man,
5 that's a three-year program.

6 So in 1977, I became a journeyman lineman, worked
7 at that capacity for about three years, which gave me
8 about ten years of service with PG&E. And I was with
9 actually hired on what they call the general construction
10 part of PG&E's business. You have construction, then you
11 have maintenance. The construction organization is a
12 group that travels throughout the PG&E service territory
13 and does whatever work that the areas have. So it's not
14 localized. It's -- it -- it totally relies on where the
15 work is at.

16 After 10 years, I became a transmission line --
17 excuse me. I became a GC heavy foreman, which is a
18 management job, and my job was to manage a crew of 12 up
19 to as many as 250 people doing reconstruction of
20 transmission lines and/or what we call cut overs or
21 distribution for the various divisions.

22 After 15 years with PG&E, I felt that I had
23 probably maximized what my learning was going to be, and I
24 had an opportunity to go into what they called then was
25 region transmission. Today they call it just TLine
26 organization. And as a transmission line supervisor or

1 region supervisor, my responsibility was two transmission
2 troublemen, and this was right around 1987.

3 Transmission -- there was two organizations, and I won't
4 go into that, but it -- they didn't quite have crews yet
5 so I mainly had transmission troublemen that were doing
6 patrols and inspections of about 3,000 transmission
7 structures of all voltage -- 60, 70, 115, 230 and 500 KV.

8 Shortly after that, within six months or a year
9 that transmission crews came on, and then I supervised
10 those crews to go out and perform the maintenance that was
11 the result of tags that were created by the troublemen
12 from their inspections.

13 And about 1990 -- '90, '91, the electric
14 superintendent that I was working for that worked out of
15 Fresno, he made a decision to retire, and he had been
16 mentoring me, and I interviewed for that position. I was
17 awarded the southern area transmission line
18 superintendent, which basically was from Stockton all the
19 way to Bakersfield. Three crews -- Stockton, Fresno,
20 Bakersfield, and I think there was a total of about 15
21 troublemen and 30 -- 30 line workers, which would be a
22 makeup of a supervisor, a crew foreman, and then three to
23 four linemen that were on that crew. And those were,
24 again, maintenance crews.

25 So I made that decision to leave the
26 construction, because there was a lot of challenges on the

1 maintenance side of the house, and I really wanted to
2 learn as much as I could about what was going on. I
3 enjoyed the transmission side of the house and was pretty
4 fortunate through my career from that time on to be
5 involved with the transmission organization. Then there
6 was another reorg that took place somewhere around '92,
7 '93, and the company made the decision that they wanted to
8 combine both substation and transmission line under one
9 superintendent, and I really didn't have a substation
10 background. I've worked in a lot of substations but it
11 really wasn't where my heart was at, and I was offered a
12 job in Fresno and I declined the position and took my
13 chances hoping that I would get an offer from within the
14 transmission organization and, fortunately, I did. I got
15 a call and was offered a job in the Bay area, but I spent
16 so much time in the Bay area, I declined that job, and
17 then I was offered the job to be the senior transmission
18 specialist for the north -- for the valley, which was
19 everything from Sacramento north, including Eureka was a
20 part of that. And -- and -- and, I'm sorry, also,
21 Lakeville, Petaluma and that was for gentleman by the name
22 of Richard Cashdollar. He was the director at the
23 substation and transmission line.

24 I functioned in that capacity for a couple of
25 years as a senior transmission line specialist, and then
26 they asked me to be a supervising transmission line

1 specialist. Kind of another change in the organization.
2 And I accepted that position and had four direct reports,
3 which covered the Bay area, the southern area, central
4 area and the north area. Functioned in that capacity
5 until there was another change within PG&E, and I was put
6 into a support group. What they wanted to do was separate
7 the -- like, the engineers, the specialists, and the
8 subject matter experts and separate them from the business
9 unit itself. At that time, I accumulated another seven
10 employees on the distribution side. So I had both the
11 transmission distribution throughout the whole
12 transmission system. And that went on for two or
13 three years, and another reorganization, a -- a change.
14 And I went in and -- into the, what they call still today,
15 the transmission asset management department, which
16 included asset management, asset strategy and asset
17 reliability. And the -- and so my role was reliability
18 and that was as a manager to use -- take the data that was
19 supplied from our engineering group and our operation
20 group to look at transmission lines to determine whether
21 they were suitable to be reconstructed or whether they
22 should be removed and replaced. And it was -- it was
23 based primarily on safety, reliability and asset life.

24 When we -- when you look at those categories,
25 what immediate comes to mind, you're looking at the outage
26 history of the line. You're looking at the impact to the

1 customers. How many outages are they seeing? How many
2 can you prevent? So that was really my role. The asset
3 management role was more to look at the asset line and
4 other factors determining when those assets should be
5 replaced.

6 And I functioned in that capacity until the
7 company made the decision to go through another reorg and
8 after 42, 43 years, I -- I just didn't really have it in
9 me to -- to basically train people that I personally -- it
10 was my personal opinion and only that -- well, they didn't
11 have the background that were going to be elite in the
12 organization, and it would also give other people an
13 opportunity. And after 43, 44 years, I felt I had done
14 all I could for the company.

15 Q. Sounds like reorganization is a way of life in
16 PG&E?

17 A. Yes. It -- I think it averaged about every three
18 to five years. It didn't necessarily mean that it was a
19 full reorganization where officers are replaced and -- and
20 those kinds of things. But as the business looked at
21 opportunities and what made best for PG&E as a business,
22 they would restructure and move people into different
23 departments. It's a great opportunity to do -- to do
24 something different or take what you know and help develop
25 others and for you to learn as well.

26 Q. But as a supervisor of pretty much the people on

1 the ground that -- how did that effect you?

2 A. As a transmission line supervisor?

3 Q. Yeah, and superintendent and...

4 A. I'm -- I'm sorry, sir, I don't understand the
5 question.

6 Q. Okay. How did the constant reorganizations
7 effect your ability to get things done?

8 A. It never really -- in the early years of
9 reorganizations, because of my position, it -- the --
10 the -- the new people that were coming in as leaders were
11 people that had a very strong background in the business
12 itself, and so I seen it as a benefit. And it was
13 probably the late 2000, in that period of time, where --
14 and, again, it, you know, it -- it was just me. I -- I'm
15 just a -- I'm a believer in -- in if it's working and it's
16 working well, why -- why would you change it? And the
17 last restructuring, I think, was the -- was the one that
18 was the -- had the biggest impact on me. It was a great
19 opportunity for the person that was coming in to have
20 somebody that -- with my knowledge, me being there, but
21 I -- it -- they were -- I was actually holding other
22 people that I felt would benefit from having that
23 opportunity and had done what -- what I had set out to do
24 in my career.

25 Q. When exactly did you retire?

26 A. I retired -- well, my wife worked for the company

1 as well, and we both set our retirement date for May 1st
2 of 2017. Unfortunately, a month before we retired, I had
3 a seizure. Never had one in my life. And I -- in the
4 seizure, I broke both my arms, and the company kept me --
5 because I was still employed, the company kept me on as an
6 employee until all my medical was taken care of, and --
7 and -- well, they took care of it afterwards -- and
8 afterwards as well. But my official retirement date was
9 October 1st.

10 Hers was May 1st; mine was October 1st. I wanted
11 to end my career -- my hire on date was May 1st. I wanted
12 to end my career on May 1st but, unfortunately, it went
13 beyond that.

14 Q. All right. Let's walk back to when you were a
15 superintendent, transmission superintendent.

16 What are the duties of a transmission
17 superintendent?

18 A. The duties of the transmission superintendent is
19 to manage the transmission system. With all aspects of
20 it, making sure that you've got supervisors that are
21 trained and qualified and have a background to supervise
22 union people. That we would be nonunion as management,
23 and they were -- were union people, and to make sure that
24 they had the skill sets and the training that they needed
25 in order to go out and perform whatever work was generated
26 on the maintenance tags that were created by the

1 troublemen. Make sure that the troublemen were trained
2 and qualified and went through annual -- both TLine crews
3 and troublemen went through annual training as well as
4 refresher training in order to be in the organization.

5 And that superintendent -- or that training, in
6 the early days, back in the '90s, that would be -- that
7 was my responsibility to take the patrols and inspections
8 documents, what we called then T&D, transmission and
9 distribution standards, which outlines specifically
10 what -- what it is you're out there to inspect. What you
11 should be looking for during your inspection. How to
12 create tags and log those tags and initial those -- those
13 tags, and to retain those tags until such time that the
14 work was completed, and that completed work package go
15 back with the tags, and then that all that documentation
16 was retained.

17 I think the rule at the time was for seven years,
18 but what we did is we made sure that we always had the
19 last two -- and I have to be careful with this -- I want
20 to -- I want to clarify because I may say it two different
21 ways. Routine inspections and detailed inspections.

22 Q. All right. Let's -- let me -- I don't mean to
23 cut you off. We will get to that in just a second.

24 A. Okay.

25 Q. So we talked about your duties as a
26 superintendent.

1 A. Yes.

2 Q. And you said that one of those duties was to
3 insure that the TLine supervisors working for you had the
4 training and experience to do their jobs?

5 A. Yes, sir.

6 Q. What type of training and experience did -- was
7 needed to be a TLine supervisor?

8 A. When they interviewed for the job, they had to
9 show or convince me -- even though, I could go through HR
10 to look at their background, but to make sure that they
11 were trained in all aspects of transmission distribution,
12 overhead and underground, and that they had been through
13 the master apprenticeship program and that they were a
14 journeyman lineman. If they were a journeyman lineman
15 then they would be -- they would -- through their raining,
16 they would have spent a minimum of six months -- and
17 that's a bare minimum of six months -- with a construction
18 crew working on towers and wood poles, so they would be
19 familiar with the tower, the -- making sure the tower is
20 safe before they can climb the tower, and that's basically
21 doing a walk around and may require you to get copies
22 of -- from engineering on the tower itself, what was the
23 history -- some history on the tower, you know, it would
24 depend on the type of tower that you're looking at, and
25 how those -- all those parts and those pieces work
26 independently and dependently on one another. That --

1 there are some members in the tower that only become under
2 stress depending on what the -- what we would call either
3 the wind loading of the tower or wind loading on the
4 conductor itself. But for the most part, they would never
5 see heavy mechanical stresses, but the foundation, the
6 legs and the arms, including the outriggers on them, which
7 is the point of the arm where your insulators are going to
8 be attached, whether they're vertical or horizontal-type
9 insulators on it.

10 Q. All right. After being a superintendent for a
11 few years, you moved up to being a -- a senior
12 transmission specialist, correct?

13 A. Yes, sir.

14 Q. And that's when you went to work for
15 Mr. Cashdollar?

16 A. Yes, sir.

17 Q. And how long did you work for Mr. Cashdollar?

18 A. I believe I spent three or four weeks with
19 Richard Cashdollar. It was -- he was a northern area. At
20 the time his title was director of north valley. There
21 were three directors. There was a director in Fresno.
22 There was a director in the Bay area, and a director in
23 the north. They -- and I want to believe that he was in
24 there, in that role, for about maybe two years; and then
25 they did away with the area directors and had all the
26 superintendents at the time -- because they were

1 transmission line and substation -- report to the director
2 who was in San Francisco. And Richard Cashdollar went to
3 San Francisco as manager of what I believe was engineering
4 and support. And I worked for him in that capacity for
5 two or three years before, I want to say, he either
6 retired or we went through a reorg and I went to another
7 department.

8 Q. All right. So what was your duties as a senior
9 transmission specialist?

10 A. The duty of a transmission specialist senior, or
11 a specialist is when you look at PG&E and how it's
12 structured -- so you have the people in the field, you
13 have engineers that are all, at the time, were in the Bay
14 area, and so a lot of questions would come from the people
15 in the field to the engineering crew, but it was more or
16 less apples and oranges because linemen have a tough time
17 talking to engineers and engineers have a tough time
18 talking to linemen. So the creation of the specialist was
19 that -- and in order to be a specialist, you had to have
20 been a supervisor, a transmission line supervisor. So
21 it's kind of a steppingstone.

22 So each area had a transmission and distribution
23 specialist, and the people in the field, when they had
24 questions, they knew that they could go to the specialist
25 that supported them and then the specialist, then, would
26 interact with the engineering group because, as a

1 supervisor, every day you're interacting with the
2 engineering group. You're looking at their drawings.
3 You're looking at their data sheets. You're looking at
4 their job packages so you've -- you've already developed
5 that relationship, so it's kind of a steppingstone on it.
6 And so questions come in out of the field, you try to
7 resolve them if you can yourself without going to the
8 engineer, because there are reference manuals that you can
9 go to get specific instructions on how to deal with
10 concerns that you find in the field. But if you had to go
11 to the engineers, then you could interact with the
12 engineers, and then relay that information back to the
13 field.

14 And then sometimes that would require, or you may
15 consider creating a document that you could foster that
16 could go out to everybody in the system because one area
17 found an issue, you would want to share that with other
18 people on how you resolved those issues.

19 But to be that -- be that support mechanism for
20 the TLine organization or the distribution organization.

21 Q. All right. I want to switch gears a little bit.

22 1987, you took over as a TLine supervisor,
23 correct?

24 A. Yes, sir.

25 Q. You were supervising a couple of troublemen?

26 A. Transmission troublemen.

1 Q. Transmission troublemen, I'm sorry. That was
2 essentially when the troublemen position was created,
3 correct?

4 A. They were actually created the year before. I
5 believe, it was 1986 when they -- when the transmission
6 and distribution separated and the transmission
7 organization was created, and the transmission troublemen
8 were awarded the positions based on their seniority and,
9 so as I mentioned, I had two -- I -- well, fortunately for
10 me, the superintendent I worked for was a -- was one of
11 the forefathers in writing the maintenance and inspection
12 practices that were -- they were using at the time, so I
13 -- I got mentoring from him, but I think I learned more
14 from -- or I didn't learn more, I learned a lot from the
15 transmission troublemen. I was impressed with -- with
16 that attitude and their knowledge -- their knowledge,
17 their commitment. And just the -- very, very good at what
18 they did. And I -- since I only had two people I had to
19 supervise, I got to spend a lot of time in the field with
20 them, asking them a lot of questions, and -- and being
21 able to see the system that I was responsible for. And so
22 that I knew what -- what I was dealing with.

23 Q. Who was the supervisor you said that was such a
24 good mentor, the superintendent when you were the TLine
25 supervisor?

26 A. I'm sorry?

1 Q. You said the TLine superintendent that -- was
2 quite a mentor to you and was very involved in the
3 development of the --

4 A. What was his name?

5 Q. Yeah, what was his name?

6 A. Raul W. Murray. He passed away about 15 years
7 ago.

8 Q. Okay. So I want to talk to you now about the
9 development of the troubleman's program.

10 A. The troubleman program or the electric
11 transmission preventive maintenance manual.

12 Q. We're going to talk about both.

13 A. Okay.

14 Q. The troublemen themselves, you have talked lot
15 about the troublemen when you started as a TLine
16 supervisor. What were the qualifications to be a
17 troublemen back in the -- the late '80s, early '90s?

18 A. You had to be trained, qualified and experienced
19 in working on and around transmission structures.

20 Q. Through your -- your career, did that -- those
21 qualifications necessary to be a troubleman change?

22 A. Those qualifications, if -- and excuse me --
23 the -- I -- I want to say that that language still exists
24 today in the ETPM manual that you have to be trained,
25 qualified and show experience. But I -- since I wasn't
26 part of the 2016 revision, I -- I can't say that it's

1 still there, but it was in there.

2 Q. Good segue into the next question. The training
3 that is required to be a troubleman, were you personally
4 involved in the development of the training troubleman
5 program?

6 A. At one point in my career, I was involved. I was
7 responsible in part of develop -- doing training for
8 transmission troubleman and transmission line supervisors
9 and transmission crew foremen, and in some cases, the
10 linemen on those crews as well, yes, sir.

11 Q. Was that the appropriately 1995 to 2007 period?

12 A. It -- it would be right around that period of
13 time, and I want to say that I probably -- I probably did
14 that for about -- well, I mentioned the TLine supervisor
15 so I want to -- I want to back up on that.

16 We developed a -- an initial and a -- initial
17 training and annual training for transmission troublemen
18 and crew foreman and lead linemen on the crew. That was
19 initially. And myself, and one or two of my other
20 specialists, we conducted that training on an annual
21 basis. After about five years -- so maybe year 2000 -- I
22 approached the director of TLine and shared with him that
23 I felt it would be of more benefit if I trained the
24 supervisors, and then the supervisors are responsible for
25 training their crew members. Because one of the things
26 that -- one of the challenges when you're doing the --

1 doing the training, and even though it was an eight-hour
2 classroom training, the supervisor would tend to be
3 distracted because there was issues going on, whether it
4 would be a car/pole accident in the area, or a report of a
5 person climbing -- climbing a tower somewhere within their
6 area. There were always moments where they may lose one
7 or two hours of the training. And that's what -- that's
8 not what training is all about, but that was just -- you
9 know, that was the -- the business. They had to respond.
10 So by me taking the approach with the director, and I was
11 able to con -- take -- I was able to consolidate the
12 training to -- to adapt to the supervisors, and then
13 during the directors -- one of his or her staff meetings,
14 then they would give me whatever time that I needed to go
15 through the training with them and to update them on any
16 changes that were made as a result of California ISO audit
17 or a CPUC audit where they had made some recommendations
18 to us, and we felt that they were good recommendations and
19 we wanted to adopt them into our filed maintenance
20 practices.

21 So there was a transition on there, and then the
22 supervisors then were annually required to do that
23 training. And I want to say in 2015, '14 or '15, the
24 training then was -- the decision was made by a director
25 of TLine to move that training to Livermore training
26 facility and have the instructors -- excuse me -- have a

1 instructors at the school actually do the training and
2 they, basically, took the training material that we used
3 and modified it more into PowerPoint-type presentation,
4 but to -- also the other good part about having it at the
5 school is the company went to no big expense to -- even
6 though we already had a lot of transmission facilities on
7 the school itself, we wanted to expand that, and so there
8 were a number of other types of framing and structures and
9 switches that were put in there, so I -- I believe it's --
10 it could be as much as a two, three-day, maybe even a
11 five-day school today, but I -- I couldn't -- I really
12 don't know at this point when it is.

13 Q. So, your --

14 A. But everybody had to have refresher and initial
15 training.

16 Q. So did you remain involved in the training until
17 your retirement?

18 A. Once it went to the school, I was no longer
19 involved in it.

20 Q. Okay. And it went to Livermore in 2017?

21 A. 2015. '14 or '15, I believe is when it was.

22 Q. All right. So you continued with some
23 involvement in the training program for the troublemen T
24 -- TLine supervisions until somewhere around 2014, 2015?

25 A. About -- no, about 2010, I want to say, is when
26 the -- we moved -- I moved from actually doing the

1 training myself and with my direct reports to actually
2 doing them -- the updates with the supervisors during the
3 directors staff meetings.

4 Q. Okay. Can you describe for us the development of
5 the content of the training for -- for the T-man and TLine
6 supervisors?

7 A. Well, again, the -- the focus was more on the
8 transmission troublemen, but you have to remember that the
9 transmission troublemen are -- actually function in two is
10 capacities. They perform switching during emergencies.
11 They do switching during routine, if it's for the work
12 that the transmission line crews are performing, as well
13 as having to work with the crews periodically. So the
14 important thing was is -- is the -- you have to make sure
15 that you get the lines inspected. There was -- you -- you
16 try to get these frequencies or timeframes depending on
17 weather and conditions in order to get those inspections,
18 and they can -- they can take a considerable amount of
19 time. You have to be able to be very detailed and -- and
20 I kind of -- being a veteran, you're very structured and
21 that's the way the military trains you. And so I tried to
22 incorporate that into the training, and it -- it -- it was
23 something that the others followed. They -- they thought
24 it was the right way to do it. So I if were to give you
25 an example, and we will do a tower itself, is if you do an
26 inspection, and -- and --I -- I got away a little bit from

1 the question, but -- and maybe I should finish that, and I
2 will come back to the tower.

3 But they -- you don't always have the luxury of a
4 troublemen being 24/7, 365. So then you either have to
5 use a crew foreman, who is the next most qualified person
6 or use somebody on the crew. So it's only logical when
7 you did the training, because it -- if you got a crew
8 foreman, now you got a crew out there that doesn't have
9 anybody to supervise them. And, yeah, you can send them
10 out to put visibility strips on poles or do some bore
11 testing on the poles, but for an eight-hour day of class,
12 it was great just to bring them it, because it helped
13 develop their skills as well. So you basically have a
14 whole transmission group in three different areas. We
15 would do it in Davis, we would do it in the Bay area, and
16 we would do it in Fresno.

17 But the -- the idea behind an -- an inspection is
18 to try to develop a process that you can stay pretty
19 consistent with. So when you walk up to a tower, the
20 first thing you want to start looking at is the
21 foundation. What kind of foundations are they? So
22 there's really two things that you're looking at. You
23 either have direct buried steel or you have a concrete
24 foundation. And so if you got direct buried steel, what
25 you want to do is look at the base of the steel and see if
26 you're seeing any erosion. If there's any kind of, what

1 we call, ponding of water that can accumulate there, then
2 that's a concern because that means when it rains or snows
3 or whatever the case may be, you're going to get water
4 that is settling. We all know that if water settles and
5 settles on metal, it's going to rust, and what you don't
6 want to do is have rust occur.

7 So if you still got a nice mound around the
8 foundation, you may just break it down. If you see
9 something that is concerning to you, then you're going to
10 create a tag for that, and the tag is going to go to the
11 tower department. One of the luxuries in PG&E is that
12 they do have their own tower department. And you create a
13 tag and a -- and a tower expert, somebody that deals with
14 those kind of conditions, can go out and look at it.

15 If it's concrete, if you got cracks in it, then
16 you want to -- you want to document that. You don't
17 necessarily want to do anything yet, but you want to
18 document it, and then you start from each leg and you
19 following the leg all the way to the top of the tower, and
20 you walk around the tower and you do that -- because what
21 you want to do is you want to look at the body of the
22 tower, and then what you're looking at is what we call a
23 bend line. So a tower tends to have a diagonal built into
24 it, and then it goes fully vertical and -- so the lower
25 part is called the body, and then you have the bridge of
26 the tower, which the arms are attached to on it. And you

1 want to look at it, and then you want to look at each arm,
2 and on the arms your looking at -- you're looking -- and
3 -- and you're using binoculars, okay. You're be talking
4 about something that is 100-foot tall, maybe 150-foot
5 tall. And you're just making sure that you're not seeing
6 any -- any rust pockets, you're not seeing bolts that are
7 missing, you can look at those arms and you look at those
8 arms all the way out to, what we call, the hanger plates,
9 and you're going to look at the hanger plates. And people
10 that have had a loft experience can look at that hanger
11 plate. We know that it's approximately an inch in
12 diameter, and there's some type of component that's
13 attached in that hanger plate hole that is supporting
14 those insulators, and so you -- you're -- even though you
15 may not be able to see what is going on with the C-hook,
16 if you've got an inch hole and you got a C-hook that's
17 inch in diameter you probably -- or half inch in diameter,
18 then you ought to be able to see roughly a half an inch
19 gap in it. And if you got good binoculars, you're going
20 to look at it and, if you're not comfortable with it, then
21 you're going to -- you may or may not make a note on it.
22 You're going to -- then you're -- what you're going to do
23 is you're going to look at your string of insulators,
24 you're going to look at your conductors, you're going to
25 look at the dampeners armor rot and -- and those kinds of
26 things. The intent is to --

1 Q. Let's -- let's we kind of got --

2 A. Okay.

3 Q. -- a little far here --

4 A. I'm sorry.

5 Q. I just let you go. The question was, the content
6 of the training for the TLine, TLine supervisions crew
7 leads, and lead linemen. And to see if I can summarize
8 it, it sounds like a big part of the training was
9 essentially here is how you do a detailed ground
10 inspection?

11 A. That is correct.

12 Q. And a systematic approach to the tower starting
13 from the bottom to the top?

14 A. That's correct.

15 Q. Was there specific training with regard to
16 different components of the tower and how to look for
17 wear, corrosion or other flacks?

18 A. In the training, we use -- we use training aids,
19 pictures, photos that have been taken, things that have
20 failed previously in the system that had gone to what we
21 call ATS, which is applied technical support. It's also a
22 dome that we have in San Ramon, it's where we have the
23 metallurgists at, and so we would show those components
24 and talk about those components and how they interact and
25 the things that you need to watch for when you're doing an
26 inspection.

1 Q. For instance, did you know a guy named (WITNESS
2 #17)?

3 A. I do know (WITNESS #17), yes.

4 Q. And when you were TLine supervisor, did you
5 become aware of some C-hooks somewhere -- some C-hooks
6 that (WITNESS #17) found?

7 A. I do not recall that. I believe it happened just
8 prior to me coming into the -- into the TLine
9 organization. I -- I just recall hearing about it. I
10 personally am not aware about -- aware of it.

11 Q. When you talk about using the examples for -- for
12 the TLine -- T-man for the foreman and the lead lineman,
13 what types of examples do you recall using?

14 A. Some of the examples that we used was, what we
15 call, ball-and-socket insulators where the galvanized
16 coating was gone from -- from the ball and socket, and it
17 was a great -- great way of showing and -- and just a
18 number of different types of components that didn't
19 necessarily always mean that they were at a failure point,
20 but there was a good training aid to help people
21 understand that once the galvanize is gone and the coating
22 is gone, that once rust starts, that -- that's an
23 indicator that you need to start monitoring it more. You
24 can say that about C-hooks or white ball connectors. Rust
25 is an indicator that there's no longer protection for that
26 component.

1 Q. Do you -- did you have any -- any worn C-hooks as
2 examples in your training?

3 A. I can recall having C-hooks as part of the
4 training, but they were -- they were actually C-hooks that
5 were manufactured incorrectly. They had black iron in
6 them, and we had to find -- we -- we knew which vender we
7 had bought those from. They were on a specific project.
8 And we had one or two failures on the project after the
9 line was installed, and we went back out and had to remove
10 all of those out of that -- off of that particular line,
11 that lot of C-hooks for that -- for that project.

12 Q. All right. So we've talked a lot about you
13 provided training for the perspective or the -- the
14 working T-man and foreman and lead lineman on how to do a
15 detailed ground inspection, did you always provide
16 training in how to do helicopter patrols?

17 A. We did talk about helicopter patrols and
18 inspections, and remember there's -- there's two parts to
19 it -- on it. Typically, the -- the only time that you
20 would call for a helicopter inspection would be because
21 you've got a landowner that refuses you access onto their
22 property, and you're going to have to work with law
23 enforcement to -- to get access for the next inspection or
24 work with the lawyers that deal with the land related
25 issues on it and -- or as part of a routine ground
26 inspection, there was a condition that you were not 100

1 percent sure was safe and that you wanted to get in the
2 air and get a different view from the air and be able to
3 get in closer.

4 Q. What's the difference between a hotel -- a hotel.
5 A helicopter inspection and a helicopter patrol?

6 A. A helicopter inspection is -- is an inspection
7 where you're -- you're -- you're going to be looking for
8 things that you are not able to see from the ground or you
9 didn't have access, so the only -- the -- the only thing
10 you're not going to be able to see is what's going on
11 at -- at the foundation itself. You can get a pretty good
12 view of it, but typically the way we wrote it in the
13 manual was that you had to do a ground -- you had to do a
14 grounds inspection, if these situations occurred, you were
15 allowed to do a detailed inspection from the helicopter
16 but the next year, you had to be on the ground and the --
17 the one use of the helicopter to do an inspection had to
18 be approved by the superintendent.

19 Q. So what is a -- a helicopter patrol then?

20 A. Helicopter patrol is -- is -- it has a little bit
21 different approach to it. What you're looking for is --
22 is a little bit more of the obvious things that can occur
23 out there. It could be things such as trees that are
24 leaning into the right of way. Dead trees that are
25 outside of the right of way. It could be vegetation is
26 growing in the right of way that's getting in close

1 proximity to the conductor. You're looking for insulators
2 that may be flashed or broken. You're looking for
3 anything that might be hanging on the conductor, it could
4 be -- it's -- it's intended more to look at the top half
5 of the tower. But the -- the air speed is going to be
6 different between the two, and that is really more or less
7 based on the person's skills and -- and how they approach
8 doing those inspections or those patrols on it.

9 Q. Now, you kind of brought this up a little bit,
10 have you been involved in the development of the
11 inspection and patrol policies for the transmission line
12 organization?

13 A. Yes, sir, I have been.

14 Q. All right. Let's go back to 1987, and you should
15 have in front of you a stack of documents.

16 Oh, no, I didn't pull this one. We have this one
17 on the screen.

18 A. I'm familiar with the document, yes, sir.

19 Q. I have up in front you Exhibit No. 608, do you
20 see 608?

21 A. I'm -- I'm familiar with it, yes, sir.

22 [Exhibit No. 608 was identified.]

23 BY MR. NOEL:

24 Q. What is 608?

25 A. It's the requirements for patrols and
26 inspections.

1 Q. And this was the patrols and inspections policy
2 that was in effect when you became a TLine supervisor in
3 1987?

4 A. Yes, sir.

5 Q. All right. And talking a little bit about it.

6 MR. NOEL: And, actually, this would be a good
7 time -- I did need to pull that one, I forgot.

8 It's a little after 10:00. Does the Court want
9 to take a -- I'm sorry, Madam Foreperson, do you want to
10 take a break?

11 GRAND JURY FOREPERSON: Yes, please.

12 MR. NOEL: All right. She's going to read you an
13 admonition and we're going to take a break for a few
14 minutes.

15 GRAND JURY FOREPERSON: Okay. Mr. Stinnett, what I
16 -- you are admonished not to discuss or disclose at any
17 time outside of this jury room, the questions that have
18 been asked of you or your answers until authorized by this
19 grand jury or the court.

20 A violation of these instructions on your part
21 may be the basis for a charge against you of contempt of
22 court. This does not preclude you from discussing your
23 legal rights with your own attorney.

24 What I have just said is a warning not to discuss
25 this case with anyone except the court, your lawyer or the
26 district attorney.

1 Do you have any questions?

2 THE WITNESS: No I don't.

3 GRAND JURY FOREPERSON: Okay, thank you.

4 MR. NOEL: 15-minute break?

5 GRAND JURY FOREPERSON: 15 minutes.

6

7 [Proceedings omitted.]

8

9 [Recess taken at 10:01 a.m. until 10:25 a.m.

10 whereupon the grand jury comes to order in Courtroom 9.]

11

12 GRAND JURY FOREPERSON: All members of the grand jury
13 are present and ready to proceed?

14 GRAND JURY COLLECTIVELY: Yes.

15 THE COURT: Mr. Stinnett, ready to resume the witness
16 chair?

17 GRAND JURY FOREPERSON: Mr. Stinnett, you're still
18 under oath.

19 THE WITNESS: Yes, I am.

20 GRAND JURY FOREPERSON: I wanted to remind you.

21 THE WITNESS: Thank you.

22 BY MR. NOEL:

23 Q. All right. Before we get going, let's go back
24 and clarify, make sure I understood this right earlier.

25 To be a troubleman, someone have has to be an
26 experienced lineman?

1 A. You'd have to have a journeyman lineman
2 background and have to get the experience and have the
3 knowledge.

4 Q. Microphone.

5 A. Yes. They'd have to be a journeyman lineman or
6 line person and have -- be able to demonstrate and have
7 knowledge in the job that they're applying for.

8 Q. So one of the examples that you were using
9 earlier is, you know, when you're talking about doing a
10 detailed inspection and looking for things, would be
11 things like a C-hook in a hanger hole and understanding if
12 it's a one inch hole and a half inch C-hook, you know, how
13 to see wear. But as a journeyman lineman, wouldn't a -- a
14 troubleman by definition have experience in hanging and
15 replacing insulators?

16 A. Yes, sir.

17 Q. Okay. So by the time somebody gets to be a
18 troubleman, they should know what -- how the -- the hooks
19 and holes are supposed to fit together before they ever
20 start?

21 A. Yes, sir.

22 Q. Okay. So now, getting into 608, and madam clerk
23 pulled 608 for us. First thing I want to talk to you
24 about is inspection frequency. And I think that's on page
25 three.

26 A. You think it's on three?

1 Q. Let's see, no, I was wrong.

2 A. Okay.

3 Q. Here let me find it and bingo, there it is.
4 Frequency.

5 A. Okay.

6 Q. So this we're talking about in 608 is the 1987
7 policy for inspection patrols, correct?

8 A. There was the document that was in place when I
9 came into the region transmission department.

10 Q. Okay. And so when we're talking about
11 frequencies of inspection and patrols in 1987, at that
12 time, the different transmission lines were identified as
13 class A, class B or class C circuits, correct?

14 A. That is correct.

15 Q. Do you recall how the distinction was made
16 between class A, class B and class C?

17 A. I cannot remember that.

18 Q. Okay. But for class A circuits: One annual
19 ground patrol, two annual aerial patrols at least six
20 months apart, infrared patrol every three years, and the
21 troublemen were expected to climb five percent of all the
22 structures on each line in each year?

23 A. I remember -- do remember that, yes.

24 Q. Okay. And class B circuits: One annual ground
25 patrol, two annual aerial patrols at least six months
26 apart, infrared every five years and, again, climbing five

1 percent of the structures on each line every year,
2 correct?

3 A. Correct.

4 Q. And that's that 608 says is the policy?

5 A. That the correct.

6 Q. And class C circuits: One annual ground patrol
7 and one annual aerial patrol, correct?

8 A. That is correct.

9 Q. All right. That's what the policy was in 1987?

10 A. Yes, sir.

11 Q. So even the least amount -- the least of the
12 circuits was getting a ground patrol and aerial patrol
13 every year?

14 A. Yes, sir.

15 Q. And that was the policy that was in place from
16 1987 until it was replaced?

17 A. Based on the class of the circuit.

18 Q. Okay. All right. So let's flash forward to
19 1995. And do you remember what you were doing in 1995?

20 A. I was either a senior transmission line
21 specialist or a supervisor specialist at the time working
22 for Rich Cashdollar.

23 Q. Ah. You should have there in front of you, right
24 there in your hands, Exhibit 825?

25 A. Yes, sir.

26 Q. Do you recognize 825?

1 A. I recognize 825.

2 [Exhibit No. 825 was identified.]

3 BY MR. NOEL:

4 Q. What is 825?

5 A. It's a guideline that is to assist in future
6 patrols and inspections to help the supervisor determine
7 the inspection frequency that should be applied based
8 under certain circumstances on it. There's some more
9 descriptive items in it, it's got definition of terms, but
10 it's the beginning of the -- of -- of getting away from
11 the old T&D bulletin and the way you report what you find
12 in the field and your frequencies and your inspections
13 with a proposed new changes in guidelines.

14 Q. Who was the signatory on this policy?

15 A. I believe Rich Cashdollar was the signatory on
16 this document.

17 Q. And did you assist with the -- putting together
18 this document in 1995?

19 A. I want to say yes. I would believe that I would
20 have been part of it working for him. I would have been a
21 member of a team of technical experts that would have
22 developed this document.

23 Q. All right. So let's look through this document.
24 And on page four, there's a table two that defines
25 inspection and frequency -- or inspection frequency and
26 priority.

1 Do you see that?

2 A. Yes, sir.

3 Q. And we have a copy of it up here on the big
4 board.

5 A. Okay.

6 Q. Is that correct?

7 A. That is correct.

8 Q. So under the 1995 policy, four a priority rating
9 one, there would be an aerial inspection every 12 months,
10 a ground inspection every 12 months and a climbing
11 inspection as triggered?

12 A. That is correct.

13 Q. So basically an aerial inspection and a ground
14 inspection every single year?

15 A. That is correct.

16 Q. Under a priority two ranking system, an aerial
17 inspection every 24 months, a ground inspection every 24
18 months and a climbing inspecting as triggered, correct?

19 A. That is correct.

20 Q. So basically every other year, you do a ground
21 inspection one year, aerial patrol the next, ground
22 patrol, aerial patrol, climbing like that?

23 A. That is correct.

24 Q. And then a priority ranking three, an aerial
25 inspection every three years, a ground inspection every
26 three years, and a climbing inspection as triggered?

1 A. That's correct.

2 Q. Do you recall why, in 1995, a decision was made
3 to essentially eliminate routine climbing inspections?

4 A. What I do -- what I recall was the purpose for --
5 and we never removed them, we -- we gave the option as a
6 trigger. So the intent of an inspection is the make sure
7 that you have looked at all the parts and the pieces of
8 the tower, the insulators, the conductor and any
9 associated hardware on it. If you could not see the
10 condition of an -- of a component on the tower, you were
11 going to be required, yourself either to climb it, create
12 a tag and have a towerman come and inspect it, or get a
13 helicopter and view it from the air.

14 Q. Going back just to clarify one thing with --
15 Mr. Cashdollar was the signatory on this document,
16 correct?

17 A. That is correct.

18 Q. But in your experience and PG&E -- would
19 Mr. Cashdollar actually have been the person who wrote
20 this document?

21 A. He would not have been the person that wrote the
22 document.

23 Q. You said probably done by a committee of subject
24 matter experts such as yourself?

25 A. Myself, engineers. There would have been
26 superintendents and -- at least one superintendent and one

1 supervisor from the TLine organization that was part of
2 it. But also remember that in 1995, we were all part of
3 the same organization. We hadn't separated where we
4 were -- where we became a support. So there could have
5 been as many as 20 people on the committee.

6 Q. All right. So we have had routine climbing
7 inspections, or yearly climbing inspections have now been
8 eliminated in '95, and now we have the introduction of the
9 term "as triggered," correct?

10 A. That is correct.

11 Q. Now, I'm sorry, but I'd asked why did they
12 eliminate the climbing inspections, and I am not sure we
13 got to the answer?

14 A. They eliminated the five percent of the climbing
15 inspections and put it as a triggered where it would
16 warrant the person needed to climb, get a different
17 viewing point or have somebody else climb it and inspect
18 it or use another means of access to where they can
19 inspect it.

20 Q. Okay. Why? Why not have someone actually climb
21 up into the tower and look?

22 A. If you're asking me specifically what -- what was
23 the reason for it, I -- I can't explain. I don't recall
24 exactly what our methodology was for doing it.

25 Q. Okay. All right. Let's go on -- go backwards
26 now to page three. And first up it refers to a table two

1 that we're going to get to in a minute, but we also have a
2 definition of triggers.

3 "Triggers are specific findings identified during
4 ruin aerial or ground inspections. If a trigger is
5 identified, it would require a follow-up inspection
6 scheduled by a supervisor independent of the routine
7 schedule. The frequency of a triggered inspection and the
8 best visual position to assess the extent of component
9 defect will assist in the development of priority
10 maintenance trends and needs."

11 Is that what it says?

12 A. That's what it says.

13 Q. All right. And then it defining the following
14 triggers:

15 "Component defects identified by other than the
16 best position for inspection."

17 A. Correct.

18 Q. Can you explain to us what that means?

19 A. I'm thinking about the wording on it. I can tell
20 you what I believe the intent was or what it -- what it
21 should be implying is that if you have looked at all your
22 options, you've taken all your options out there,
23 depending on what the level of the slope -- if you're
24 dealing with slopes -- all -- all these other things and
25 factors that you've used the tools that you have and you
26 can't see it.

1 Q. Okay.

2 A. Then you need to get a different viewing point.
3 And in the manual we do talk about -- not specific in this
4 document here, but we do talk about the parts of the tower
5 and the best view point is --

6 Q. Okay.

7 A. -- for certain conditions.

8 Q. We will get to the manual here in a few minutes.

9 A. Okay.

10 Q. For right now, 1995 to 2005, this is the document
11 that is setting the policy --

12 A. Right.

13 Q. -- establishing the policy. And I guess what I'm
14 asking you to explain if I'm looking more towards you were
15 teaching this to the linemen, and then the line
16 supervisors in those -- and -- and the crew foremen and
17 the lead linemen for years.

18 What were you teaching those people that this
19 first trigger was?

20 A. What I just described.

21 Q. Okay. Next trigger: "Component failure (like
22 components), or proven defective by testing"?

23 A. That goes back to where we've had a report of a
24 failure, we've done the investigation and determined a
25 certain style or manufacturer of a component that has
26 failed and they need to take a look at those in the air,

1 and we have identified which towers and which lines they
2 were installed on.

3 Q. "Wire/structure strike"?

4 A. That would be a situation where some type of
5 aircraft or flying device got in the line, and there was a
6 shock load that occurred on a tower as a result of
7 conductor down or impact to the -- to the structure or the
8 conductor or the shield wire.

9 Q. All right. "Burned area or high fire hazard"?

10 A. Just what it says, "burned area or high fire
11 hazard." If you're doing an inspection and you come
12 across an area where there's been a previous fire, that
13 would be concerning. Or if it's an area that has a high
14 fire hazard area, there's a lot of vegetation growth.
15 It's difficult to get into the right of way or to the
16 structures.

17 Q. "Failures caused by natural disaster or storms"?

18 A. Want me to explain that?

19 Q. Sure. Can you explain how you taught this to the
20 PG&E people for all those years?

21 A. Well, it's basically just what it says, "failure
22 caused by a natural disaster or a storm." So a natural
23 disaster, if we're talking about the state of California,
24 could be a fire. Storms are going to be storms -- heavy
25 winds, ice and snow loading.

26 Q. All right. "Third party observations and

1 complaints."

2 A. Some third-party property owner has -- has
3 obviously seen something or been complaining about noise
4 or a condition that they're concerned.

5 Q. All right. "Marginal capability component of a
6 re-rated line section."

7 A. Maybe a little misleading on the question. A
8 re-rate is a condition where the engineering has made a
9 decision that they're going to increase the load on a
10 line, and there are certain work activities that you want
11 to go out and take a look at to make sure that they're
12 going to be able to support the changes in the mechanical
13 stresses from the loading on it. And there's a conductor
14 size within the line that is of concern. That's what that
15 would be referring to.

16 Q. So something like, say, you wanted to up the --
17 up the -- the juice going through a 60KV line to 70KV
18 line?

19 A. Yes. And you -- and you've got to make sure
20 the -- you can increase the loading, you're increasing the
21 heating of the conductor, which is going to cause more
22 sag. It'll have distribution underbuild. Is there
23 adequate clearance between whether it's PG&E owned or a
24 municipality own it. You don't want -- you can't violate
25 the general orders on it.

26 Q. Okay. "RCM count based data triggers"?

1 A. Okay. Reliability centered maintenance count
2 based data triggers, and I can't answer that.

3 Q. All right. "Known recurring conditions which
4 jeopardize line integrity"?

5 A. Those are specific things on the line that you've
6 been aware of that have not been corrected.

7 Q. Vegetation proximity or fast growth concerns"?

8 A. Exactly what it is stating that there are certain
9 types of vegetations, trees and their growth
10 characteristic. You -- some -- some areas you can get a
11 four-year trim on it, and other areas you have to do it
12 annually.

13 Q. Okay.

14 A. Or you may have a property owner that limits you
15 to what you're allowed to remove because they don't want
16 to see the lines or the structures.

17 Q. Okay. So these are the triggers -- the things
18 that might a trigger climbing inspection starting in 1995?

19 A. I don't believe that that was the statement --
20 that that's what it's stating there. This says, "Triggers
21 are specified findings identified during routine air and
22 ground inspections. If a trigger is identified, it will
23 require a follow-up inspection scheduled by a supervisor
24 independent of the routine schedule. The frequency of the
25 trigger inspection and the best visual position to assess
26 the extent of the component defect will assist in the

1 development of a priority maintenance trends and needs.
2 The following triggers can be applied," so it's talking
3 about triggers that is going to require you to -- on the
4 inspection frequency, it's not talking about a climbing
5 inspection.

6 Q. Oh. So what are the -- what are the defined
7 triggers for climbing inspections?

8 A. It's in the ETPM manual.

9 Q. Well, at this time, there was no ETPM manual
10 correct, this was 1995?

11 A. Yeah, that -- that's correct. I would have to
12 look through the document to see if it's in there.

13 Q. Okay.

14 A. Just to know because I'm not --

15 Q. Please do so. Because I believe --

16 A. Okay.

17 Q. -- it talks about "as triggered," I believe this
18 is the only definition in that document of triggered. You
19 know, I may --

20 A. I don't believe that that indicates anything on
21 there as triggers to requiring a climbing inspection.

22 And also keep in mind that this is a guideline
23 that is a supplement to the existing practices until such
24 time that the ETPM manual is developed.

25 There's nothing specific in this guideline that
26 reference the issue of triggers for climbing, even though,

1 as you have indicated, it does show in here the frequency
2 and what the options are, and it does reference trigger,
3 but that's not what this is intended for.

4 Q. So when would you do -- what trigger would
5 trigger a climbing inspection?

6 A. Because you're unable to see a specific component
7 or element on a tower from the viewing point that you
8 have. That's a trigger.

9 Q. Is that the only trigger for a climbing
10 inspection?

11 A. The only need to try to climb a tower other than
12 work that is going to be required on the tower, which
13 requires climbing the tower, is something that is
14 concerning and needs climbed or an alternative vision
15 point such as a helicopter or an aerial lift vehicle so
16 that you may see that.

17 Q. Okay. Let me ask you this: If there's a part on
18 a tower or on an entire tower line that you say we can't
19 see that from the ground. We can't see it from the
20 ground. We can't tell what its condition is from the
21 ground, but we also can't see it from the air because of
22 various factors that make it impossible for a helicopter
23 to fly close enough and low enough and slow enough for you
24 to see that same component. Would that mandate a climbing
25 inspection?

26 A. That would require a climbing inspection,

1 absolutely.

2 Q. Okay.

3 A. But it doesn't necessarily require that the
4 troubleman be the person that does the climbing
5 inspection.

6 Q. Right.

7 A. It just requires a climbing inspection or the
8 access to the tower because we don't always climb our
9 towers, we have helicopters that put us on tower.

10 Q. Right. And -- and that's a very good point,
11 climbing doesn't necessarily mean climbing. Climbing
12 means getting up into the -- into the bridge of the tower
13 and looking around, correct?

14 A. And to a safe point on the tower, yes.

15 Q. Right.

16 A. Correct.

17 Q. Okay. So if you can't see something from the
18 ground and you can't see it from the air, you should be
19 climbing or getting into that tower to take a look at
20 that?

21 A. You have to find another method to verify what
22 the condition -- you cannot walk away from a tower and not
23 fully inspect the structure. Yes, you as a troubleman
24 have the option to climb the tower, create a tag to have
25 somebody else climb the tower, or get an aerial lift or a
26 helicopter to get you to that location.

1 If you choose to use a helicopter and you can't
2 see it, then the only other option is somebody has got to
3 climb the tower and look at it.

4 Q. All right. So moving on now, we're looking at
5 table two -- or no, table one on the 1995 guidelines.

6 A. Yes.

7 Q. One of the things that we noticed was that the
8 changed -- we're now looking at transmission lines and
9 doing a priority ranking. What is this table on -- on
10 table one on page three?

11 A. These are considerations in prioritizing what is
12 the appropriate inspection frequency or transmission line.

13 Q. Can you explain to us how this works?

14 A. The intent is -- the intent of this is that the
15 supervisor would take this document, go down through, read
16 each -- read each one of those categories as well as the
17 bulletin and give a check mark, and then once you've got
18 all your check marks in, you would check it -- and are you
19 going to show the next page on it? It shows where the box
20 check in table one?

21 Q. We can go back to that, yeah.

22 A. Okay. So when you come up with the total number,
23 then there's a -- a table two, then you use the number to
24 determine what that inspection frequency is going to be
25 for that particular transmission line.

26 Q. So if we can walk through this real quick. Are

1 you familiar are a Caribou-Palermo line?

2 A. I am very familiar with a Caribou line.

3 Q. How are you familiar with Caribou-Palermo 115KV
4 line?

5 A. I have responded to -- the -- the -- probably the
6 most, I won't say recent one, but -- because Camp fire was
7 the most recent one even though I haven't been up on the
8 line. There were four or five towers that collapsed on
9 that line a few years back, and I went up to work with the
10 engineering team to build a shoo-fly, which is basically a
11 temporary route around where the towers had failed until
12 such time that the weather allowed PG&E's tower department
13 to get back in to install/replace towers where those
14 towers collapsed.

15 Q. Okay. So let's assume you're back here as the
16 T-line supervisor at this time, and you're filling out
17 the -- the inspection frequency check list for the
18 Caribou-Palermo.

19 Does it have metered transmission service?

20 A. I won't go through what the intent of those are,
21 that would be very time consuming.

22 Q. Right.

23 A. It's not a metered transmission service.

24 Q. Is it radial feed?

25 A. It's not a radial feed.

26 Q. Is it a distribution substation?

1 A. It does feed a distribution substation.

2 Q. So we got one there.

3 Grid impact: Is it a generation outlets?

4 A. It is a generation outlet.

5 Q. System operations (deemed critical line/system)?

6 A. Yes.

7 Q. WSCC - transfer capacity agreements?

8 A. I don't know that it's on -- I -- I can't say

9 whether it is or not on that one, okay.

10 Q. Re-rated line section?

11 A. It's not a re-rated line. Can you put a question

12 mark by that, Mr. Noel, please?

13 Q. Yep. Structure type. (Wood or steel direct

14 buried) would that apply?

15 A. It's steel direct buried.

16 Q. Conduct loading (snow, ice or high wind area)?

17 A. It is in that area.

18 Q. Insulators/hardware (does not meet present

19 engineering standards)?

20 A. That would be correct.

21 Q. Age of system. It's over 30 years old, it's over

22 50 years old, it's over 70 years old, right?

23 A. That is correct. Oh, you can't check each one of

24 them.

25 Q. You can't check each one? Just one?

26 A. You should only check the one that applies to it,

1 so it's over 70 years old.

2 Q. Why is it not erasing this for me? They taught
3 me a new trick, how to erase with my hand.

4 All right. So you just check off the over
5 70 years there?

6 A. Right.

7 Q. All right. Geographic conditions: Adverse
8 terrain?

9 A. Correct.

10 Q. Extreme weather?

11 A. Correct.

12 Q. Dense vegetation (high fire hazard)?

13 A. I don't -- it's vegetation I can't agree with.
14 High fire area, yes.

15 Q. Accessibility. No heavy equipment?

16 A. No heavy equipment.

17 Q. No medium equipment?

18 A. Yeah, you can get medium.

19 Q. Light equipment?

20 A. Light equipment you can get.

21 Q. Endangered species habitat?

22 A. I don't know that -- if there is on that line.

23 Q. All right. Contamination/corrosion. Coastal,
24 industrial or agricultural?

25 A. No.

26 Q. Historical failures. Structures down?

1 A. In -- when they would use this in '95, no.

2 Q. Okay. But now?

3 A. If you applied it today, yes.

4 Q. Conductor down?

5 A. Yes.

6 Q. Insulators lock out -- to lock out?

7 A. I would say, yes.

8 Q. Historical inspection data. Critical component

9 problems noted? If you don't know that's okay.

10 A. I don't know.

11 Q. Okay.

12 A. I don't know.

13 Q. So, basically, just going through all the -- what

14 we have got -- one, two, three, four, five, six, seven,

15 eight, nine, ten, eleven, twelve, thirteen boxes checked,

16 right?

17 A. That is correct.

18 Q. So going back to our frequency that would put

19 us --

20 A. Priority two.

21 Q. Square in priority two, right?

22 A. That is correct.

23 Q. At the high end of priority two?

24 A. Yes.

25 Q. So that would define that basically every other

26 year. Ground inspection one year, aerial patrol the next?

1 A. For 1995.

2 Q. Yes, from 1995 until the ETPM took effect, right?

3 A. That is correct.

4 Q. All right. The -- when we were talking about
5 that, you brang up your experience during the Shoo-Fly on
6 the Caribou-Palermo in 2012. And did we understand
7 correctly, you said that you installed the Shoo-fly as a
8 temporary solution until the weather cleared and PG&E
9 could get in and replace the towers?

10 A. Yeah. I don't recall the exact month, because
11 there was -- it was wet and there was still snow on the
12 ground so pretty difficult to get in and do the work that
13 you need to do. Even though it was an emergency, you
14 could still cut roads that were necessary to access them,
15 but with the Shoo-Fly, it allows us to wait until the
16 weather or the conditions --

17 Q. So the Shoo --

18 A. -- were more adaptable.

19 Q. So the Shoo-fly really was meant to be temporary,
20 correct?

21 A. It is meant to be temporary.

22 Q. Right.

23 A. Correct.

24 Q. Are you familiar with the term "temporary
25 permanent"?

26 A. No.

1 Q. All right. We refer to that term sometimes and
2 that things are temporary but they're built to be -- to
3 permanent standards.

4 A. Okay. I am not familiar with it.

5 Q. Was the Shoo-fly that was built to replace the
6 towers that fell down in 2012 built for -- although it was
7 temporary -- built for permanent standards?

8 A. It was built per our design standards, but did
9 not have a right of way where we built the Shoo-fly, so it
10 could not remain where it was at. It had to be placed
11 back in the right of way.

12 Q. Do you know how long that Shoo-Fly ended up being
13 in place?

14 A. No, I don't know how long it had been in there.

15 Q. All right. All right. So that's 1995. 2005,
16 what are you doing?

17 A. We're developing the electric transmission
18 preventive maintenance manual.

19 Q. Let's be a little bit more general in terms of
20 what your job was then?

21 A. I'm not sure I understand the question.

22 Q. What was your assignment in 2005?

23 A. To be a subject matter expert with a group of
24 -- PG&E transmission and engineering group in developing a
25 more comprehensive manual designed to be used in a SAP
26 environment, which is -- SAP is just basically a software

1 program that allows you to sort out and -- sort out
2 documents used certain code numbers that are more easily
3 accessible to be able to pull out your next year's
4 inspection records. You can pull out all your open
5 notifications. You can pull out all the closed
6 notifications. It's just a place where all the data is
7 stored.

8 Q. Okay. So we're still talking about the SAP,
9 right?

10 A. We're talking about SAP, yes.

11 Q. Okay. So you have in front of you the binder
12 that is marked as Exhibit 149?

13 See the tag there --

14 A. Correct.

15 Q. -- up on the --

16 A. Yes.

17 [Exhibit No. 149 was identified.]

18 BY MR. NOEL:

19 Q. Do you recognize Exhibit 149?

20 A. I do recognize it.

21 Q. What is Exhibit 149?

22 A. What is what?

23 Q. What is Exhibit 149?

24 A. It's the patrol inspection maintenance records
25 retention manual for transmission line including all
26 standards, guidelines and bulletins associated and linked

1 to the section -- the first seven sections of the ETPM
2 manual.

3 Q. Uh-huh. So was 149 -- did 149 -- Exhibit 149,
4 the ETPM, replace the inspections -- overhead line
5 inspection guidelines issued by Mr. Cashdollar, Exhibit
6 Number 825, in 1995?

7 A. It would have, but I'm not certain that it didn't
8 happen before then. I don't -- I'm not sure.

9 Q. Okay. What would have happened before then?

10 A. It could have been a combination of the old T&D
11 as well as the guidelines. I -- I -- it just -- I
12 can't -- I can't say that this manual replaced what
13 Cashdollar put together --

14 Q. Okay.

15 A. -- in that period -- during that -- that gap in
16 there from the time he left until the time it was
17 developed.

18 Q. You don't recall if there was any further
19 guidelines or anything else?

20 A. I -- I don't.

21 Q. Well, for instance, 825 -- we can go back
22 there -- on the cover page, shows -- there should have
23 been a review date in March of 1998. Every three years.

24 Are you aware if there was a review date? If
25 this was reissued in 1998 or?

26 A. I do not know.

1 Q. Okay. And if this is all we had that would be an
2 indicator that there was none, correct?

3 A. Correct.

4 Q. All right. So getting back to ETPM. All right.
5 Going on page two of this document. There's a chart then
6 that shows the stakeholder/subject matter/technical expert
7 review of the document. See this list of people?

8 A. I do.

9 Q. Is -- Chuck Stinnett, is that you?

10 A. That is me.

11 Q. And these other people, are these the -- is this
12 the group that you talked about earlier being part of to
13 put together this manual?

14 A. It's a stakeholder/subject matter/technical
15 expert review, yes. And there's -- I was a supervising
16 specialist then and Joe Hemstock, Bob Scholler both worked
17 for me, and I worked for Maria Ly. The third person down
18 on the top.

19 Q. All right. So one of the big changes with this
20 was, again, you changed the inspection and patrol
21 frequency, correct?

22 A. That is correct.

23 Q. One thing that you did now, is in 1995, as we
24 just went through, inspection patrol frequencies were
25 determined by the priority code of the line, correct?

26 A. The priority that was developed --

1 Q. Right.

2 A. -- here. Correct.

3 Q. By going that through the checklist and looking
4 at things like age of the tower, history of -- age of the
5 line, history of the line, where the line is located and
6 all of that.

7 In 2005, that's all eliminated, correct?

8 A. That's correct.

9 Q. And now you're strictly looking at the voltage of
10 the line, correct?

11 A. Looking at the voltage and the type of structure
12 as well as some other concerns that we have. Bay waters.
13 We're looking at most critical towers in the system.
14 There's other factors that are built into it.

15 Q. Well, just based upon voltage, correct? 500s?
16 230s?

17 A. As well as the type of -- the type of structure.

18 Q. Okay.

19 A. Structure type.

20 Q. Okay. Why did you eliminate the requirement or
21 the -- the procedure of looking at the line to determine
22 frequency and just go to a straight one size fits all?

23 A. So what I recall -- it's not a one size fits
24 all -- but what I do recall was that there was data that
25 was used based on historical findings to determine what
26 was the appropriate -- appropriate frequency for the

1 voltage in the type of structure.

2 Q. Okay. Now, let's talk about a 115 line. A 115
3 line with a steel structure?

4 A. Right.

5 Q. A hundred year old line going through the Feather
6 River Canyon is going to get the exact same attention that
7 a two year old line in Sacramento is going to get,
8 correct?

9 A. That is correct.

10 Q. So you've eliminated looking at any of the
11 environmental factors, age factors, equipment factors all
12 of that, and if you've got a 115 and it's a steel tower,
13 and it's not in the Bay waters foundation, it's one size
14 fits all?

15 A. That's not necessarily true, because in the ETPM
16 manual, it gives the transmission line supervisor the
17 ability to set the frequency based on his knowledge of the
18 performance of the line.

19 Q. Right. It actually says, "This is a minimum that
20 you're going to do" --

21 A. That's correct.

22 Q. -- "but you can do more if you want," right?

23 A. That is correct.

24 Q. So why are the Bay waters foundation towers
25 treated differently than others?

26 A. Because they're in the bay waters. They're

1 exposed to salt, and salt eats away at concrete and steel
2 faster than natural earth, whether it's in the valley or
3 in the mountains.

4 Q. Okay. So now for the 115 -- for the
5 Caribou-Palermo 115 KV line, steel structures. Now, we're
6 looking at a detailed inspection, ground or aerial, every
7 five years?

8 A. Every five years, yes.

9 Q. So it's gone from every other year to every five
10 years now?

11 A. That is correct.

12 Q. So --

13 A. Well, I don't know that it has or not. I'd have
14 to -- the -- the supervisor may very well have it on a
15 more frequent inspection. And if you ask me if I know
16 that, I don't know that.

17 Q. Right.

18 A. But that is that option.

19 Q. But, again, let's talk about that. Because the
20 superintendent -- or the supervisor does have the option
21 of doing more frequent inspections, correct?

22 A. That is correct.

23 Q. But does the supervisor -- the T-line supervisor
24 have an unlimited budget?

25 A. I can't answer that question. I don't know.

26 Q. When you were a T-line supervisor back in the --

1 in the late '80s, did you have an unlimited budget?

2 A. I did not have to deal with budget.

3 Q. Ah. And how about --

4 A. As superintendent I had to deal with -- with
5 budget, but you budget it based on what you knew about
6 your transmission lines and how long -- how many
7 inspectors you needed and how often -- or what you -- what
8 you were finding out there as a result -- how much time it
9 would take to do the inspection on those lines.

10 Q. Okay. We will come back to that in a minute.

11 A. Okay.

12 Q. All right. And, again, detailed climbing or now
13 we have the term aerial lift. What's an aerial lift?

14 A. A bucket truck.

15 Q. Okay. As triggered?

16 A. Correct.

17 Q. And there are definitions of triggered in there.
18 That's from page 57, a definition of triggers that follow
19 -- that requires follow-up inspections and or maintenance?

20 A. It's not specific to climbing inspections.

21 Q. Okay. Is there a specific definition in there of
22 triggers for climbing inspections?

23 A. I am going to look.

24 Q. All right.

25 A. There's no tabs in here, so it's going to take me
26 a second.

1 Q. All right. Section two, which defines
2 frequencies of inspections, I believe starts around page
3 55, 56.

4 A. Are you attempting to direct me to where it's at?

5 Q. No, I don't know where it's at.

6 A. I went to -- there's a general section of 1.5,
7 which is definition of terms in the book. But it is not
8 specific to climbing triggers, it's -- it's more related
9 to what we have there, but what it says is "condition that
10 may require follow-up inspection and/or maintenance of
11 facility at a frequency different than the intervals
12 determined by line prioritization or condition
13 assessment." And I'm not certain that we put anything in
14 the manual specific to what the -- what the definition of
15 a trigger is other than what we already have in here.

16 Q. Okay. All right. So that's the -- ETPM that
17 takes effect in 2005. Flash forward to 2010.

18 Do you remember what your position in the company
19 was in 2010?

20 A. Looking at the -- looking at the required
21 attendees, I can't recall --

22 Q. No, no, I don't -- I'm not asking about the
23 exhibit yet, I'm simply asking what your position within
24 the company would have been in 2010?

25 A. I was a supervisor in transmission asset
26 management, I believe.

1 Q. Okay. And what -- what does a supervisor in
2 transmission asset management do?

3 A. I supervised a small group of engineers and
4 technical individuals. Looking at reliability and
5 possibly dealing with some issues with asset management.

6 Q. Got it. So you have up in front of you, you have
7 it directly in front of you printed is Exhibit Number 826.
8 See 826?

9 A. Yes.

10 Q. What is 826?

11 A. It's a request -- an e-mail request for
12 individuals to attend a meeting to look at a Quanta
13 report.

14 [Exhibit No. 826 was identified.]

15 BY MR. NOEL:

16 Q. Okay. Let's stop right there.

17 A. Okay.

18 Q. So there's something -- first, it's the T-line
19 structure committee.

20 A. So talking specifically about structures in this
21 one, yes.

22 Q. Okay. So this is a committee that you're part
23 of?

24 A. Correct.

25 Q. All right. And this is setting up a meeting, and
26 then there are a required attendees?

1 A. That is correct.

2 Q. All right. What do to you recall about the
3 purpose of this committee itself?

4 A. I don't recall a lot about meet -- the meeting.
5 When I look at the attendees, and the location of the
6 meeting, I believe that I -- I attended this meeting.

7 Q. All right. I guess I'm trying to be more general
8 than this specific meeting.

9 A. Okay.

10 Q. I am talking about what is the T-line structures
11 committee?

12 A. I'm not a member of the T-line structures
13 committee. I don't know why it's subject that way.

14 Q. Okay.

15 A. But, evidently, they're -- there is something in
16 the Quanta report, and that's why that's the subject
17 matter that is going to be -- going to be discussed.

18 Q. All right. Required attendees: Who are these
19 people?

20 A. Feven Mihretu is a engineer that worked for me.
21 Rich Stockand would be of my peers, he was a supervisor.
22 Randy Hopkins is an engineer. Henry Ho is an engineer.
23 Nick Bhatt is an engineer. Rayond Thierry was my manager.
24 Dale Brock was a -- I believe, during this period of time,
25 he was a -- either a tower supervisor or a senior tower
26 specialist. Then myself. Ron Nixon on an engineer. Jeff

1 Lockwood worked for me, he was subject matter expert. Bob
2 Cory was a supervisor in the tower department, and I can't
3 read the -- the last name that's on there. But he was an
4 engineer. Fahny was a new engineer at the time. I think
5 it -- probably less than that year with the company.

6 Q. Now, it shows that the topic is to review the
7 final Quanta report on T-line structures?

8 A. That is correct.

9 Q. What is Quanta?

10 A. Quanta is a outside contractor that -- a large
11 part of their business is responding to emergencies or
12 building new lines or restructuring existing lines
13 worldwide.

14 Q. Okay. You should have on the desk next to you
15 Exhibit Number 827?

16 A. Yes, sir.

17 [Exhibit No. 827 was identified.]

18 Q. What is 827?

19 A. It is a report from Quanta outlining some
20 recommendations, some findings and comparisons that they
21 have made with PG&E transmission practices.

22 Q. Is this the transmission line structures report
23 from Quanta that was being referred to in February 2010
24 meeting?

25 A. That is correct.

26 Q. All right.

1 A. I believe it's correct.

2 Q. Okay. Now, did you review the Quanta report?

3 A. I have not.

4 Q. All right. Now let's move on. This is 828. Do
5 you see 828 in front of you?

6 A. Yes, I do.

7 [Exhibit No. 828 was identified.]

8 Q. Do you recognize 828?

9 A. Yes, I do. This was an e-mail between Luther
10 Dow, who, at this particular time, was working for Quanta.
11 It's an e-mail to Randy Hopkins who was one of our
12 electric transmission line standards engineers, and I
13 believe it has to do with a conference call -- a one-hour
14 conference call to basically talk about the things that
15 they were going to be -- that they were going to need from
16 PG&E in order to evaluate PG&E's transmission inspection
17 program.

18 Q. Okay. So this is a T-line inspection project
19 conference call --

20 A. Correct.

21 Q. -- correct?

22 A. That's correct.

23 Q. To occur on January 26, 2012?

24 A. Correct.

25 Q. The organizer Luther Dow of Quanta Technology?

26 A. That's correct.

1 Q. Now, did you know Luther Dow?

2 A. Yes, I worked with Luther Dow. Most of the
3 conversations that we have had when I referred to a
4 director, Luther Dow was the director of transmission
5 lines.

6 Q. So Luther Dow was the director of transmission
7 lines with PG&E, and then he moved to Quanta?

8 A. He retired and went to Quanta. That's correct.

9 Q. All right. Harold -- the required attendees:
10 Luther Dow and Harold Taylor. Who is Harold Taylor?

11 A. He was now director of transmission line.

12 Q. So he was the guy that took Luther Dow's place?

13 A. That is correct. I think there was somebody else
14 in there before Harold Taylor came in.

15 Q. Okay.

16 A. But it -- he -- that would have been basically
17 it. Joscelyn Wong is asset management. She's an
18 engineer -- or I'm sorry, transmission planning engineer.

19 Q. All right.

20 A. Rich Stockand was a supervisor in asset manager
21 with myself. Raymond Thierry was our manager. (EMPLOYEE
22 #3), at this particular time, would have been the north
23 area transmission line superintendent.

24 Q. Okay.

25 A. Neil Stockton would been the south -- southern
26 area transmission line superintendent. Nik Bhatt was an

1 engineer, and then myself.

2 Q. All right. And then down here it says, "Team,
3 please plan on attending. PG&E is contracted with Quanta
4 technology to identify industry best practices for
5 controls and inspections and evaluate our practices
6 against those benchmarks. Briefly the scope of work
7 includes the following: ETPM manual and CAISO filed
8 maintenance practice review. Review of inspection
9 processes, industry surveys and research, analysis and
10 evaluation of industry practices."

11 Do you recall that?

12 A. That's what it says, but I don't recall that that
13 --

14 Q. Okay.

15 A. -- is all the things that were discussed on the
16 call. But I -- I -- I recollect that I -- it seems to me
17 I remember being on that call.

18 Q. Okay. Now, let's move up to 829. That is really
19 hard to read on the board, it should be easier to read in
20 printed form.

21 [Exhibit No. 829 was identified.]

22 BY MR. NOEL:

23 Q. If you want to grab the exhibit, the actual
24 physical exhibit. So what is 829?

25 A. So 829 is a e-mail from Randy Hopkins to Joscelyn
26 Wong, myself and John Culbertson. We all three reported

1 to Raymond Thierry, which is in the second half of the
2 page.

3 Q. All right.

4 A. Are you going to read what it says?

5 Q. First off, who is John Culbertson?

6 A. John Culbertson was an acting -- what's the date
7 on this? 2012. He's either acting supervisor with me and
8 Joscelyn or he was an acting manager. I can't recall what
9 our titles were at the time.

10 Q. All right. And --

11 A. I'm sorry, he would have Niel -- Rich Stockand,
12 he would have replaced him on the previous e-mail. Rich
13 Stockand had left and went back to his previous
14 department.

15 Q. Okay. And so we always try and read -- we have
16 to read these things backwards because e-mails are
17 actually organized from newest to oldest. So the oldest
18 would be on the bottom. So let's start with the oldest
19 e-mail and have you read the e-mails.

20 A. So this -- this e-mail is from Raymond, he CC'd
21 Randy Hopkins as well as Joscelyn Wong, myself and John
22 Culbertson, and the subject was PG&E maintenance and
23 inspection review. He says, "Randy, is a Quanta report
24 finalized at this point? John, should we make" -- I think
25 he meant use "of this document in the T-line maintenance
26 strategy," talking about the strategy.

1 Q. Right.

2 A. Part of it. And then Randy e-mails again and
3 it's directed to Raymond and he CC'd the three of us, and
4 he says, "Raymond, the Quanta report is still in draft
5 form. I don't expect to see a lot of changes in the final
6 report. The major takeaway from the drafts are we have a
7 very detailed and comprehensive manual with more detail
8 than what is typical in the industry. There are no gaps
9 between the regulatory requirements of the California ISO
10 GO98 -- CAISO, GO985, GO128 and the ETPM manual. The
11 inspection frequencies with the exception of the 500 are
12 within industry norms. 500 KV inspection frequencies are
13 less than other utilities (we supplement with patrols.)
14 Typical for the industry. The requirements of QCR is
15 relative," and then he clarifies a words on that.

16 Q. Okay. All right. So you guys are expecting
17 another Quanta report, this time on inspections and
18 patrol?

19 A. A final report, that's correct.

20 Q. Okay. So you should have next, Exhibit 8 -- I
21 went the wrong, yeah. Exhibit 830. Do you recognize
22 Exhibit 830?

23 A. I do not recognize the -- I recognize the
24 document, I -- the -- the contents of it, I don't
25 recognize.

26 Q. Okay. All right. But this is a Quanta PG&E

1 transmission line inspection procedures final report?

2 A. Correct.

3 [Exhibit No. 830 was identified.]

4 BY MR. NOEL:

5 Q. Does this appear to be a document that was being
6 referred to in those e-mails --

7 A. That is correct.

8 Q. -- that at that time were in draft form? All
9 right. So you reviewed this report?

10 A. I have not reviewed this -- this document.

11 Q. All right.

12 A. To the best of my knowledge, I don't recall
13 reviewing this document. And I say -- and I say that
14 because I was focused on reliability and not particularly
15 on what the results of this review of our practices.

16 Q. Okay. So let's move on the 831. You should have
17 831 sitting there on top. Do you see 831?

18 A. I do.

19 Q. Do you recognize 831?

20 A. I have seen this document.

21 [Exhibit No. 831 was identified.]

22 BY MR. NOEL:

23 Q. Okay. Let's walk through this document. This
24 appears to be another meeting invite, correct?

25 A. That is correct.

26 Q. And this time, the subject: "Patrols and

1 inspections continuous improvement." Do you recognize
2 being involved in that program?

3 A. I don't recall.

4 Q. All right. The date here, November 12, 2013.
5 The organizer: Hassaun Valentine?

6 A. He was an associate engineer, new to the company.

7 Q. All right. Required attendees: (WITNESS #12)?

8 A. (WITNESS #12) would have been the supervisor at
9 Table Mountain. Pete Dominguez would have been the
10 supervisor at -- in Los Padres. Boris Gankin is the
11 supervisor in San Francisco. These are all for
12 transmission line. I believe that is me, and I say that
13 because my son is also a transmission line specialist, so
14 it kind of gets confusing sometimes on the e-mails, but I
15 believe that would have been me. Niel Stockton was the
16 superintendent for the southern area. Joyce Pefferman was
17 quality assurance, and then Kevin Pancoast, I think his
18 role during this -- he was part of T-line. I'm not sure
19 about his capacity. And (EMPLOYEE #3) would have been
20 transmission line superintendent north. Harold Taylor was
21 a director. Vanita Chhabra, she was the director of a
22 support group as well.

23 Q. All right. So if you can read to us what this
24 meeting was all about down here?

25 A. So the intent of this meeting, it says, "Update:
26 Added Genesys" -- so you could -- you could actually call

1 into it. If I participated, I don't remember whether I
2 was there or called in or I didn't participate at all.
3 But it says "Patrol and inspections has been identified as
4 a critical continuous improvement project for 2014.
5 Please hold this time for the kickoff meeting to discuss
6 in more details. In short, we need to analyze our patrol
7 and inspections to determine efficiency opportunities.
8 Are we doing the right frequency? Are we doing more than
9 the industry standard? How do -- how do our tools,
10 processes and costs compare with others in the industry?
11 Where can we find efficiencies? Forward me any background
12 information that will be of help -- be helpful. Some of
13 you may remember going through a similar process in 2004.
14 Thank you and looking forward to working with you all."

15 Q. All right. So you're looking again to redo your
16 patrol inspection -- your -- your patrol and inspection
17 frequencies in the ETPM, correct?

18 A. Yes.

19 Q. Looking to make them more efficient?

20 A. I guess to see if they're up to -- if we are
21 using the appropriate frequencies, how do we compare to
22 industry standards, and he talks about the processes and
23 costs compared with others in the industry.

24 Q. Okay. Reference to 2004?

25 A. I don't know what he's referencing. Again, I --
26 I don't recall what he --

1 Q. We're talking --

2 A. -- going through this --

3 Q. We're talking about changing the frequencies and
4 inspections again --

5 A. Right.

6 Q. -- in 19 -- in 2014 referencing 2004, but didn't
7 you change the --

8 A. That's about the time that we were developing the
9 ETPM manual, correct.

10 Q. The ETPM was -- the actual, original ETPM was
11 published in 2005, correct?

12 A. Right.

13 Q. That changed the frequencies of patrols and
14 inspections from what it was from the 1995 Cashdollar --

15 A. Correct.

16 Q. All right. So would it be safe to say that
17 you're looking here at a -- at a comparison, if you need
18 to change the -- the frequencies to become more efficient
19 like we did in 1995?

20 A. That's exactly the way that reads, yes.

21 Q. Okay. So now I want to move onto 832, and this
22 will be real quick. This is a slide from a transmission
23 operations, December 2013, EO continuous improvement
24 project status update. Do you recognize this?

25 A. No, I don't.

26 [Exhibit No. 832 was identified.]

1 BY MR. NOEL:

2 Q. What -- do you know what EO continuous
3 improvement project is?

4 A. I don't know what that is.

5 Q. That is actually -- refers to December '13, but
6 it's dated January of '14, right?

7 A. Correct.

8 Q. All right. That -- there's a cover slide. Now,
9 I want to go inside 833, which is a slide from that slide
10 deck from the -- the January '14.

11 [Exhibit No. 833 was identified.]

12 BY MR. NOEL:

13 Q. And this is a slide that is entitled T-line
14 patrol and inspection continuous improvement chart,
15 correct?

16 A. That's what it says, correct.

17 Q. And the sponsors up here, Harold Taylor, (EMPLOYEE
18 #3)?

19 A. That's correct. Harold Taylor, director of
20 T-line; (EMPLOYEE #3), north valley superintendent.

21 Q. All right. And what's it mean to be a sponsor?

22 A. They're the ones that have asked this group to
23 come together and to develop a -- a problem statement, a
24 business objective and a scope. These -- this is a list
25 of all the players and their titles.

26 Q. All right. The lead Hassaun Valentine?

1 A. He -- he was -- like as I indicated earlier, he
2 was a --

3 Q. We don't have to go through that --

4 A. Okay.

5 Q. -- but that's who the lead is on this?

6 A. He's just going to be the lead.

7 Q. All right.

8 A. Correct.

9 Q. Now, we go over here to the team members:
10 (EMPLOYEE #3), Pete Dominguez, (WITNESS #12), Chuck
11 Stinnett, Sam Gutierrez, Gerald Hammer, Damon Caughell,
12 Donna Thorne, Kevin Pancoast, and John Boven. That's what
13 it lists --

14 A. Correct.

15 Q. -- correct?

16 A. Yes.

17 Q. And Taylor, (EMPLOYEE #3), Valentine, (EMPLOYEE
18 #3), Pete Dominguez, (WITNESS #12) and yourself were all
19 involved in the meeting -- the phone meeting that we were
20 just referencing before this exhibit 831, correct? That
21 would have been two months before this slide was
22 published?

23 A. That is correct.

24 Q. So let's walk through this slide. This is for
25 your T-line patrol and inspection continuous improvement.
26 The problem statement: T-line patrols inspections have

1 not been modified in approximately ten years," right?

2 A. That's what it says.

3 Q. So the -- this comes in out in 2014. It was last
4 modified in 2005, so nine years. Relative to frequency
5 and work methods. "There may be opportunities to reduce
6 costs by, one, changing frequencies of patrols/inspections
7 or, two, finding more efficient work practices." Correct?

8 A. That's what it says.

9 Q. So that's the -- the -- the problem statement
10 that you on the T-line patrol and inspections group are
11 looking at, correct?

12 A. That's what it says.

13 Q. So you're looking at -- when we talked about the
14 efficiencies, you're looking at cutting costs in
15 inspection and patrol, correct?

16 A. It's -- we're -- we're looking at it, it doesn't
17 necessarily mean we're going to cut costs, but it's being
18 looked at.

19 Q. Then under objectives: "Define improvements in
20 our frequencies" -- it's a little hard to read on this
21 board. "Tools or processes to find efficiencies in
22 patrols and inspections. Determine frequency of patrols
23 (are we doing more than the industry standard?) Is that
24 what it says?

25 A. That's what it says.

26 Q. So why is the industry standard or you're doing

1 -- maybe doing more than the industry standard important?

2 A. Because there's a bunch of people that believe
3 that we need to be comparing ourselves to what the other
4 utilities in the state of California are doing.

5 Q. State of California or the country?

6 A. Or the -- the United States.

7 Q. Doesn't sounds like you agree with that?

8 A. I don't agree with it.

9 Q. Why not?

10 A. Because California -- you can't -- the only real
11 comparison that you can have between utilities are those
12 utilities that are on the Pacific Coast and that's going
13 to be your municipalities. It's going to be Southern Cal
14 Edison. It's going to be San Diego. It's going to be
15 Oregon Power & Light. It's going to be something up in
16 Washington. We are more dry and arid out here. We don't
17 have a level of humidity. We don't have all the other
18 weather conditions that they have in the Midwest or on the
19 east coast.

20 Q. So if you're comparing your standards to, say,
21 somebody -- you know, in the panhandles of Nebraska,
22 you're comparing apples and oranges. Is that your belief?

23 A. You're -- absolutely, you are. Most of the
24 Midwest and the east, their -- their lines are built
25 horizontally, which a majority of PG&E's lines are built
26 vertical, single circuit or double circuit.

1 Q. But yet, the company is looking at, "Hey, we're
2 doing more than these other people, so maybe we should cut
3 back"?

4 A. I don't know what their intent was on this,
5 Mr. Noel. Nothing changed in the ETPM manual as a result
6 of this effort that they have here, and I can't even tell
7 you that I participated in it.

8 Q. Okay.

9 A. A lot of people put my name on a lot of things
10 because they want me to be there and be a part of it.

11 Q. All right.

12 A. Doesn't mean that I am going to go do it.

13 Q. So going back to this. You talked about
14 earlier -- about climbing inspections, and that ETPM is
15 written so that it says that this is the minimum that you
16 can do, but if you're a T-line supervisor, you can do
17 more, right?

18 A. Exactly what it says.

19 Q. I asked you, well, how does budget play into
20 that? Well, it seemed to be here, they're -- they're
21 saying do even less; is that correct?

22 A. Well, they're not saying doing -- let's -- let's
23 look at these specific issues and see if there's
24 opportunities.

25 Q. Right. We're looking for opportunities to reduce
26 costs --

1 A. Right.

2 Q. -- by changing the frequencies for --

3 A. That's what it says.

4 Q. So in that environment, do you still think a
5 T-line superintendent has the ability to say additional
6 patrols or inspections?

7 A. Yes, they still have the ability to do that,
8 absolutely.

9 Q. And is that going to continue -- is that going to
10 work? Is there going to be a budget there to do it?

11 A. That's going to be between him, his
12 superintendent and the director and they need to weigh the
13 risk.

14 Q. All right. So you brought it up, so let's talk
15 about the ETPM. 2015 -- let me grab them for you because
16 they're all in the box. There's one missing.

17 MR. NOEL: And do we see 2018 somewhere?

18 GRAND JURY SECRETARY: Yeah.

19 BY MR. NOEL:

20 Q. All right. I'll give you two more binders here
21 to look at.

22 All right. First up, Exhibit 155 should be the
23 binder marked 2015.

24 A. 2015.

25 Q. Yep. If you flip it open, there should be an
26 evidence tag on the top right corner.

1 A. 155.

2 [Exhibit No. 155 was identified.]

3 BY MR. NOEL:

4 Q. All right. You recognize what's marked as
5 Exhibit 155?

6 A. I know that there was a revision done in 2015. I
7 was not a participant in the revision of this manual.

8 Q. Okay. But does that appear to you to be the ETPM
9 revised in 2015?

10 A. That is correct.

11 Q. All right. And I want to go back to table three,
12 which defines the overhead inspection frequencies. This
13 is identical to the one in 2005, correct?

14 A. Correct.

15 Q. Now, let's go onto 2018. And I just want to look
16 at -- have you look at that. It says --

17 A. I wasn't employed in 2018.

18 Q. I know. I know but you know the -- you know the
19 ETPM. And it should have the evidence tag Exhibit 289 on
20 the front.

21 A. Maybe the next page.

22 Q. For some reason -- no, I can fix that very
23 quickly. Somehow we're missing an evidence tag.

24 MR. NOEL: Exhibit tag, got one?

25 MS. DUPRE-TOKOS: Do you have one?

26 MR. NOEL: Got one.

1 MS. DUPRE-TOKOS: Do you need a Sharpie?

2 MR. NOEL: Yep, I need a Sharpie.

3 That's 289, right?

4 GRAND JURY SECRETARY: Uh-huh.

5 THE WITNESS: 289, correct.

6 [Exhibit No. 289 was marked for identification.]

7 BY MR. NOEL:

8 Q. There we go. Now it's 289. Now, it's got the
9 exhibit tag on it. And, simply, when -- I will let you
10 identify it. That is a 2018 ETPM manual, correct?

11 A. That is correct.

12 Q. And that was published November 20, 2018?

13 A. Actually just -- I have to correct myself, I
14 actually was back November 15th under contract, so.

15 Q. Doesn't matter. You know the ETPM, you've been
16 doing this for a long time.

17 A. I know the ETPM, yes.

18 Q. Yeah. I don't think in your two years of
19 retirement, you forgot about it, huh?

20 A. I haven't forgot about it. I have no idea what
21 kind of changes they made in it.

22 Q. All right. But, again, I just want to go to --
23 now it's table 11 in here, which defines the inspection
24 and patrol frequency. That's identical to the '15,
25 correct?

26 A. That is correct.

1 Q. Which is identical to the '05?

2 A. That is correct.

3 Q. All right. So they hasn't made any changes. So
4 in '13, '12 and '13, there were discussions of changing
5 frequencies of patrols and inspections to save money,
6 correct?

7 A. That's what the e-mails and some of the meeting
8 notices indicate, that's correct.

9 Q. And that doesn't appear to have happened based
10 upon the ETPM from '15 and '18?

11 A. It doesn't appear that it happened.

12 Q. All right. So let's change topics now. Let's
13 talk about helicopter inspections and patrols. And first
14 off, is there a difference between helicopter inspection
15 and helicopter patrols?

16 A. Yes, there is.

17 Q. Can you explain that to us?

18 A. A helicopter inspection is a detailed inspection
19 identical to a ground inspection with exception to the
20 condition of the foundation or the steel grillage at
21 ground level.

22 A patrol of a line is more of a -- a patrol --
23 yeah, helicopter patrol is intended to take a aerial look
24 at the system at a average speed -- and I can't tell you
25 what -- what -- what speed it should be, but it should be
26 similar to what you do in an inspection, but slightly -- I

1 hate to use the word faster, but that's basically what
2 you're doing. You may be elevated a little bit higher
3 because, during inspection, you're going to be required to
4 circle that tower two or three times in order to look at
5 all parts and pieces in a tower. Different angles. You
6 may have to drop lower on the tower in order to look at
7 the bottom phases and conductors. There's a lot more
8 detail in a -- in a aerial inspection whereas the patrol
9 is -- you're basically looking -- you're doing two things:
10 You have an object list with you from the last inspection
11 or patrol, and you want to specifically look at that tower
12 when you get to it to see if the condition has gotten
13 worse and warrants a new reevaluation of the condition,
14 and there may be cases where that work has been completed
15 already and the tag hasn't been closed out. But you're
16 looking for things in the right of way that can get into
17 the transmission line. You're looking for flash, broken
18 insulators. You're looking for gunshot conductors.
19 You're -- you're able to look ahead as you're approaching
20 the tower to a specific hardware, but you've already done
21 an inspection on it, you shouldn't have to do another
22 inspection. That's not what you're out there to do. You
23 want to find out if something has happened in that right
24 of way or on that structure before the next detailed
25 inspection. That's the difference.

26 Q. I heard with regard to the -- well, if I can just

1 talk about altitude and speed. That with regard to
2 helicopter inspections that generally the troubleman
3 would -- wants to fly low enough and slow enough that they
4 can step out into the tower if they wanted to; is that
5 true?

6 A. If they're comfortable with it, they would be
7 fine. You're not necessarily going to -- it -- it doesn't
8 help you from a viewing point to put you in a helicopter
9 in that type of position.

10 Q. Okay.

11 A. Everybody's eyes are different. And, you know --
12 and the pilot is the command of the ship. You may want to
13 get on top of it, and the pilot tell you "No, that's an
14 unsafe position. We need to move off a little bit. We
15 need to -- we may need to turn around and fly with the
16 nose in the wind," there's other things that you have to
17 take into factor on it.

18 But my practice, and the way that I have done it
19 most of my career and how I taught troublemen and other
20 specialists and other people, was to get approximately a
21 45-degree angle to the tower and -- in doing an
22 inspection, like I said, you have to go -- you have to
23 circle the tower. There's a number of things that you
24 have to look at. And to make sure that you have looked at
25 the things that you know historically are of great
26 concern. So insulators, hardware, hanger brackets,

1 conductors, dampeners, shield wire, armor rot, all these
2 things are components that have a life cycle in them. You
3 need to what the condition of them are.

4 Q. How about in a patrol, a helicopter patrol?

5 A. In a patrol -- as I mentioned, it's not the
6 intent of the patrol to do that level of an inspection.
7 It's to look to see if things have changed out there that
8 are obvious things. Even though you've got a storm coming
9 through, you've got a line that is -- that is relayed or
10 gone to lock out, it was inspected before this routine
11 patrol has taken place. There's two types of patrol. We
12 have an event that happens on the line, you have to go out
13 and investigate it. That cannot be substituted as a
14 routine patrol.

15 Q. Okay.

16 A. So, again, it's looking for a more obvious
17 things.

18 Q. All right. Altitude and -- and speed for routine
19 patrol, helicopter patrol?

20 A. Well, speed is always a hard one to talk about,
21 but I still use low and slow.

22 Q. Okay. So yesterday, we reviewed with you some
23 helicopter records.

24 A. Yes, sir.

25 Q. And first up, there's Exhibit 457. Do you
26 recognize 457?

1 A. Yes, you shared this with me yesterday.

2 [Exhibit No. 457 was identified.]

3 BY MR. NOEL:

4 Q. Right. This looks like a work report or -- for a
5 period, 8/14 of '16. And this shows that on that day, the
6 plan was to do patrols on the Grizzly Tap, the Cresta-Rio
7 Oso line, the Caribou-Palermo line, the Butte Valley
8 Caribou line, the Plumas Sierra tap, 1050 structures in
9 total in a six-hour period.

10 Is that consistent with your practices of
11 helicopters patrols in your experience?

12 A. It's not in my experience, no.

13 Q. It shows that the following day on August 5th,
14 scheduled to do the Oroville-Thermalito-Table Mountain,
15 Oroville-Thermalito-Table Mountain #3, Oroville-Table
16 Mountain, Palermo-Pease, Table Mountain-Butte, Caribou #2,
17 Caribou-Plumas junction. Over almost 1700 structures in a
18 six-hour flight.

19 What do you think of that?

20 A. I -- I -- I don't know how to respond, Mr. Noel.
21 I -- I -- I'm -- as I have seen it yesterday, I am
22 devastated by the information that I see.

23 Q. I think the term that you used yesterday is "This
24 isn't a patrol, this a fly by."

25 A. That is correct.

26 Q. Do you remember that?

1 A. I do.

2 Q. Is that what you feel?

3 A. Yes.

4 Q. We're not patrolling now, we're just flying
5 overhead and waving at the towers as we go by, correct?

6 A. Unless their eyes are better than me and they've
7 got a dozen people in the helicopter. I -- I don't know.

8 Q. Let's move on and go to Exhibit 459. This is an
9 e-mail that's already in evidence. From (WITNESS #18), do
10 you know (WITNESS #18)?

11 A. I know (WITNESS #18), yes.

12 [Exhibit No. 459 was identified.]

13 BY MR. NOEL:

14 Q. And Aja Lodigiani?

15 A. Aieda.

16 Q. Aieda?

17 A. Yes.

18 Q. Okay.

19 A. She's a strategist, transmission strategist.

20 Q. All right. (WITNESS #21)?

21 A. I don't know.

22 Q. (WITNESS #22)?

23 A. (WITNESS #22) is the superintendent in the north.

24 Q. All right. "I completed the following air
25 patrols on 5/17/18: Woodleaf-Palermo, Sly Creek tap,
26 Forbestown tap, Kanaka Tap, Caribou-Table Mountain, Bucks

1 CREEK-ROCK Creek-Cresta. Belden Tap, Orofino Tap. So
2 apparently, all of these transmission lines were done on
3 one day.

4 The next day: Palermo-Colgate, Palermo-Oroville,
5 Glenn #1, Elk Creek tap. What do you think about that?

6 A. It doesn't say how many hours they've flown, and
7 I am not sure. I would have to look in ETGIS to see what
8 the differences are. They're pretty close lines. Some of
9 them are small -- short lines and some of them are long
10 lines. But that's a lot of lines for a patrol in a single
11 day, even if it's eight hours.

12 Q. Right. Are you familiar with the Caribou-Table
13 Mountain line?

14 A. I am.

15 Q. Are you familiar with Bucks Creek-Rock Creek?

16 A. Oh, I'm sorry, I didn't hear you say Caribou
17 Table Mountain.

18 Q. Caribou Table Mountain.

19 A. Yeah. Bucks Creek-Rock Creek-Cresta, yes, I am
20 familiar with it. Belden tap. Orofino, I can't picture
21 it in my mind. Elk Creek, I know. Wood leaf, I know.
22 That's -- that's not a patrol, that's a fly by.

23 Q. All right. We're -- and we're getting there.
24 This is 253. Another e-mail from -- talking about
25 (WITNESS #21) to Aja about scheduling helicopter patrols
26 or helicopter patrols that have gone.

1 [Exhibit No. 253 was identified.]

2 THE WITNESS: Aja -- Aja is a coordinator in
3 helicopter operations.

4 BY MR. NOEL:

5 Q. Right.

6 A. Yes.

7 Q. All right. So this says, "On 9/13 of '16" -- or
8 '17, I'm sorry. "Caribou-Palermo, Caribou Westwood, Butte
9 Valley-Caribou," are you familiar with all three of those
10 lines?

11 A. Yes, I am.

12 Q. You've been doing this for a long time, you said
13 44 years, correct?

14 A. That is correct.

15 Q. You were very involved in the development of this
16 program?

17 A. That is correct.

18 Q. Training the troublemen in how to do these
19 things?

20 A. That is correct.

21 Q. You know the Caribou-Palermo line, correct?

22 A. Every structure.

23 Q. How long would it take you to do a routine patrol
24 in a helicopter in Caribou-Palermo?

25 A. I -- I don't recall exactly what -- what numbers
26 I gave you when we talked about this before, but I have

1 had time to think about -- think more about it, and it
2 would be a minimum of three days and it could be as much
3 as five days.

4 Q. And that's to do a patrol and not an inspection?

5 A. No, that was to do an inspection, I'm sorry.

6 Q. Okay.

7 A. For patrol, you can do that. You can do a patrol
8 on that line, just the Caribou-Palermo -- if I was doing a
9 patrol, it would take me somewhere between six to
10 eight hours just to patrol on that line alone.

11 Q. Okay. All right. So let's move on one more. I
12 think I went the wrong way.

13 GRAND JURY SECRETARY: That's correct, 460.

14 BY MR. NOEL:

15 Q. All right. 460. Exhibit 460. This is A&P
16 helicopter request summary, 18-01226 for helicopter
17 flights on September 11, 2018. You see that?

18 A. I do.

19 [Exhibit No. 460 was identified.]

20 BY MR. NOEL:

21 Q. And right here in the middle is Caribou-Palermo,
22 with it's -- the number, 496 structures, 55 miles and a
23 order number, correct?

24 A. That is correct. But there's also one below
25 that, that's --

26 Q. Yep.

1 A. -- twice the number. Caribou #2.

2 Q. Caribou #2. I guess this is a good time as any,
3 are you familiar with Caribou #2?

4 A. Every pole on it.

5 Q. Is it in your opinion, your experience,
6 reasonable to expect a troubleman to do a annual patrol of
7 just the Caribou-Palermo and the Caribou number two in one
8 day?

9 A. No.

10 Q. All right. So let's move on. Now, we've got
11 461, which is an e-mail that's in -- what I want to point
12 out is this is all foundational for the next one. It says
13 that because of the weather they could not complete
14 Caribou-Palermo. So they had to stop at Belden so 47 of
15 the 55 miles. So they're going -- 47 of 55 miles were
16 done, and then they went and did these other lines instead
17 of the planned lines, which included the Caribou #2
18 because of the weather.

19 [Exhibit No. 461 was identified.]

20 BY MR. NOEL:

21 Q. So now I want to show you what's marked as 834 --
22 and don't worry about any of this -- but do you think it
23 was reasonable that they flew 55 miles in the
24 Caribou-Palermo or 47 miles in the Caribou-Palermo, and
25 the other lines and did that inspection in 5.7 hours?

26 [Exhibit No. 834 was identified.]

1 THE WITNESS: And this -- and this was a patrol?

2 BY MR. NOEL:

3 Q. Yeah, this was a patrol.

4 A. So would you repeat that, again, for me?

5 Q. Is it reasonable doing all these inspections that
6 are listed here -- the Caribou-Palermo, the
7 Oroville-Thermalito-Table Mountain, the Oroville-Table
8 Mountain, the Polermo-Pease, the Oroville-Thermalito. All
9 of those are done in less than six hours, 5.7 hours of
10 flying time?

11 A. All I can say is I couldn't do it in that period
12 of time.

13 Q. So would it be reasonable to conclude that maybe
14 back in '13, when they were looking for efficiencies in
15 how to cut costs in inspection and patrol that maybe
16 instead of changing the frequency, maybe they changed the
17 degree that they were actually inspecting things?

18 A. I guess that's a possibility, I don't know.

19 Q. All right. So when you're flying by in the
20 helicopter -- can you see where we're referring to
21 Exhibit 171 now, the cold-end attachment points?

22 A. I can definitely see the cold-end attachment
23 points.

24 [Exhibit No. 171 was identified.]

25 ///

26 ///

1 BY MR. NOEL:

2 Q. Would you do it the way that you've taught that
3 it -- it's supposed to be done and the way you taught it to
4 be done, correct?

5 A. That the correct.

6 Q. Showing you Exhibit 175, do you see any issues
7 with -- with the tower marked in 175?

8 [Exhibit No. 175 was identified.]

9 THE WITNESS: The issue I see on that tower is that
10 the oval eye and a C-hook both are worn.

11 BY MR. NOEL:

12 Q. How can you tell that?

13 A. Because I see a whole bunch of daylight through
14 the hole.

15 Q. We're talking about right here?

16 A. That is correct.

17 Q. How do you know that that means it's worn?

18 A. Because of experience.

19 Q. All right. Let's move on to 176. See anything
20 wrong in 176?

21 [Exhibit No. 176 was identified.]

22 THE WITNESS: It's worn. Severely worn.

23 BY MR. NOEL:

24 Q. How can you tell?

25 A. From my experience.

26 Q. 267 -- or 266, I'm sorry.

1 [Exhibit No. 266 was identified.]

2 THE WITNESS: It's severely worn. Greater than 50
3 percent metal loss. I can see it.

4 BY MR. NOEL:

5 Q. All right. Are these things that you should be
6 able to see from the helicopter?

7 A. Those are the things that you're looking for from
8 the helicopter and/or on the ground.

9 Q. And what if you say we can't see this from a
10 helicopter?

11 A. Then you create a tag and you have somebody go
12 back and climb the tower or get an aerial lift, or create
13 a tag and get tower department out there to look at it
14 more closely.

15 Q. So if you --

16 A. There are options for you.

17 Q. Right. So if you can't see this from the air,
18 there should be other options, it's not an excuse to say
19 we couldn't see it from the air?

20 A. That's not acceptable. You can't walk away from
21 the tower without a hundred percent inspection completed.

22 Q. All right. I want to show you a couple of more
23 real quick. Let's skip through here. 139.

24 A. May I walk over so I can see it better?

25 Q. Absolutely.

26 [Exhibit No. 139 was identified.]

1 MR. NOEL: And we're already into the lunch hour. We
2 have only got a couple of more things with him, and then
3 -- is that okay with everybody? We will finish up with
4 him and start fresh in the afternoon.

5 THE WITNESS: From a -- from a helicopter, I would be
6 uncertain about the condition of this C-hook, because
7 it's the -- even though it's got a -- it appears that --
8 oh, I'm -- I'm sorry, I take it back. That's got a hanger
9 plate on the backside. I can't see that hanger plate.

10 BY MR. NOEL:

11 Q. Okay.

12 A. So should I explain that to them?

13 Q. Sure. Go ahead.

14 A. Can you hear me okay? On this hanger arm here,
15 you see this dark area there? That's the original
16 position that the bells and insulators were hanging on.
17 It wore out. They -- they made a plate and adapted and
18 bolted it onto the arm and moved the insulators over to
19 it. But you've got to be able to inspect that. If you
20 can't get another viewing point from the helicopter, then
21 it's going to require either you climb it or you have
22 somebody else climb it. You can get an aerial lift in
23 there, which, likely, you're probably not going to do it
24 on this line.

25 I can see this one here. I see too much daylight
26 in it. When I see too much daylight in it, I can't -- I'm

1 not comfortable giving it an echo tag saying it's going to
2 last a year. I am going to create a tag for a bravo,
3 which is going to be three months in order words to get --
4 you got to do it in three months or you got to do it in
5 one year, but under the new rules of General Order 95,
6 12.3, they use the fire Tier. So this particular line
7 would fall within the tier one, so I could make a six
8 month tag out of it.

9 Tier two -- Tier three, you can make a six month.
10 Tier -- I get my tiers mixed. Tier three, you can do a
11 six month; Tier two, you can't do a six month. It's
12 either a three or a six -- or a three or a 12, and then
13 Tier one is not as -- not seen as being part of a fire.
14 It's s thing that is in the valley. Might be in orchards
15 and those kinds of thing.

16 Q. When you're talking about tiers, you're talking
17 about the --

18 A. I'm talk about the fire tier.

19 Q. -- Tier one, Tier two, Tier three, high fire
20 threat district --

21 A. That is correct.

22 Q. -- as defined by the CPUC?

23 A. That is correct.

24 Q. All right. Do you see anything else other than
25 the cold-end attachment points that's wrong with this
26 tower?

1 A. There are things that are concerning to me that
2 would require me to go back. This corona ring. Can you
3 hear me okay? This corona ring here, may be wearing on
4 the jumper and you don't want it to wear and break the
5 strands because eventually it would separate on it.
6 Another thing that concerns -- concerning to me, this here
7 has a -- looks like a Y-ball connector. Y-ball connector
8 is going to kind of mislead you on what the condition of
9 the eye -- the eye is because it's larger than what you
10 would see in a C-hook application. So you'd have to get
11 somebody -- somebody would have to get in stable into the
12 tower to look at that. You have some galvanized issues
13 that are going on here that need to be addressed. They're
14 not an emergency type of an address on it, but if you
15 put -- what will be consistent is what you see on this
16 side of the tower is also -- is exactly what you're going
17 to see on the other side of the tower.

18 MR. NOEL: And before I volunteered you guys to keep
19 working into lunch. I should have asked, are you -- are
20 you guys going to have a lot of questions for this
21 witness, do you think?

22 GRAND JURY COLLECTIVELY: (Nonverbal responses.)

23 MR. NOEL: So maybe we should take lunch then and --
24 and come back. He's still got maybe 10 or 15 minutes of
25 testimony just from me, a couple of exhibits to look
26 through. That way we can get lunch. We have got more

1 witnesses waiting outside that I can send away.

2 Do we want to do that?

3 GRAND JURY FOREPERSON: Yes.

4 THE PEOPLE: Finish up.

5 GRAND JUROR NUMBER THIRTEEN: Why don't we just
6 finish up, and then go to lunch?

7 GRAND JURY FOREPERSON: Yeah, I say finish up.

8 MR. NOEL: Finish up with him and then go to lunch?

9 GRAND JURY FOREPERSON: Yep.

10 MR. NOEL: Okay. All right.

11 BY MR. NOEL:

12 Q. How about the way this insulator on the left is
13 hanging?

14 A. That's okay, as long as it doesn't create any
15 stresses for the shoo or separate what we call the socket
16 to the ball on the bottom of it. We actually teach this
17 in some aspects of it. What you got to be careful with is
18 when you get a loose jumper, can that loose jumper now
19 become a moving object to where it can short circuit into
20 the steel. Obviously, this is not that close. You have
21 to know the design for the tower. It's just the angle
22 that it's taken. But that -- that's okay. Now, what it
23 does, it does create another problem. It will -- by
24 having it in this condition, what you would have to do is
25 be able to look in where those two connectors that are --
26 are located to see if there's a wire brush in there.

1 Because if you don't have a wire brush in there that brush
2 is in there to create an electrical connection between the
3 two parts. You ever notice going down the road and the
4 radio -- you ever hear that buzzing sound going on?

5 That's typically because there's two pieces of electrical
6 connection that are close together and it -- it's setting
7 off a -- a -- an electrical discharge on it. And you'll
8 get ham operators and people like that that will start
9 complaining about it. Doesn't impact the reliability of
10 the line, but it can become a nuisance to other people.

11 Q. One last question about this picture, 139. Why
12 does this insulators look so much different than the other
13 insulators?

14 A. I believe, because this insulator was probably
15 changed out within the first 10 to 20 years of the -- of
16 the line. Maybe it had a lightning strike that occurred,
17 and they had to replace the jumper and so they put in
18 basically the same type of insulator. Typically, when you
19 look as these insulators here, we already know that
20 they're a hundred year old insulators, and they're
21 starting to lose their color and starting to lose the
22 gloss on them as well. And that's why we do infrared to
23 start seeing where, you know, as part of the inspection,
24 are we seeing discharges that are taking place. That's
25 what corona cameras do for you.

26 Q. All right. This thing right here. What is that?

1 A. Okay. So it's a -- this is another one of the
2 trans -- what they call a transposition tower, and I don't
3 have a chalkboard to draw it so I will try to explain it
4 real quickly.

5 So you -- the -- the -- the main part of the
6 conductors are dead ended on insulators on this tower.

7 Q. Oops, I switched -- I switched to go onto the
8 next one.

9 A. Okay. So if you see here, these are dead-end
10 insulators. It looks like they're double string dead end
11 insulators. So you have these transpositions in the line
12 -- and I won't into the theory of the transposition -- but
13 basically what you're doing on this is you're taking this
14 outside phase on this side of the tower, and you're
15 bringing -- bringing it underneath and over to the other
16 side. So everything is doing a roll. You basically --
17 your line is rolling in this direction on it. And this
18 bar that's placed between both of these strings is to help
19 control the movement of the strings of insulators and the
20 jumpers, so.

21 Q. All right. So we're moving onto 174.

22 [Exhibit No. 174 was identified.]

23 BY MR. NOEL:

24 Q. And I guess, I wasn't -- I was talking about --

25 A. The bolted connector?

26 Q. The -- the -- exactly. The bolted connector.

1 What is the bolted connector?

2 A. Well, the bolted connector is where you have two
3 tails that come together and you need to mechanically
4 connect them together.

5 Q. All right. And now we will move onto 835. You
6 see the photograph marked as 835?

7 A. It's one that I looked at before.

8 Q. Right.

9 A. Yeah.

10 [Exhibit No. 835 was identified.]

11 BY MR. NOEL:

12 Q. What is 835?

13 A. So when you're looking at it, you're looking at
14 that bar, you're looking at the shoo and corona ring that
15 was attached to the ball and socket insulators. And here,
16 these are your tails coming in and this is the bolted
17 connector that we were looking at on the -- on the other
18 one, and what you're looking for when you do --

19 Q. Okay. Let's go on to the next one first, because
20 we're going to get a close-up here.

21 A. Okay.

22 Q. Now, we're on photograph 836.

23 [Exhibit No. 836 was identified.]

24 THE WITNESS: So what we teach them -- have always
25 taught, you're working on the tower, you're doing an
26 inspection, you're doing an infrared -- especially if

1 you're doing an infrared and this is showing hot, it's
2 going to tell you that there's corrosion that's building
3 between the body of this connector and these strands.
4 What would be concerning to me, if I was looking at this
5 doing an inspection, is when you put these on, you wire
6 brush and you clean the conductor -- the conductor was new
7 at the time. So you're going to put -- you're still going
8 to get oxidation, even though the wire is new, there's
9 still oxidation that builds up on it. So you wire brush
10 it, you clean it, and then you put an inhibitor on it.
11 It's a electrical inhibitor. Some people like to call it
12 a grease, it's -- it's -- it's really nasty to handle.
13 But you put it on and that is a bond that makes sure that
14 the stranding as well as the bolt connector bond together
15 and you don't get any resistance between the bodies of
16 both the bolted connector, and the -- and the -- the fact
17 that you don't see it in here, to me, in my years of -- of
18 being in the field and actually going and taking these
19 down specifically, because I wanted to see the inside of
20 them, is that that -- that grease has completed itself, so
21 it's just a matter of time before this bolted connector
22 would fail. If I was looking at it, it dark in these
23 areas, and I could still see the residue of the grease, I
24 wouldn't be as concern about it. So they either put this
25 on dry originally, and I don't know what they did in 1918?
26 ///

1 BY MR. NOEL:

2 Q. I'm sure it was.

3 A. I -- I don't remember the exact age on it.
4 Things that -- things, you know, have changed over the
5 years. But if you don't -- it's like your battery post on
6 your vehicle, right? You know, you open up your hood and
7 you got all this corrosion between those two connectors,
8 you have to correct it.

9 Q. So what happens if that connector fails?

10 A. You'll have an ignition.

11 Q. As in fire ignition?

12 A. As in fire ignition.

13 Q. As in arcing?

14 A. As in arcing.

15 Q. All right. All right. Changing gears a little
16 bit for the last two slides.

17 You should have 837 in front of you.

18 A. 8-3-7?

19 Q. 8-3-7. It be there some place.

20 A. Got 8-3-4. After the photos, Mr. Noel?

21 Q. Yep. Should be after the photos.

22 A. 8-3-7, got it.

23 Q. Got it?

24 A. Yes, sir.

25 Q. All right. You recognize 837?

26 A. I do recognize this.

1 [Exhibit No. 837 was identified.]

2 BY MR. NOEL:

3 Q. What is 837?

4 A. 837 is a e-mail from 2011 from Mike Badet, who
5 was a transmission line supervisor in the San Francisco
6 Bay area, and this had to do with the Jefferson-Hillsdale
7 115 KV line. And what he has done is -- as, Mr. Noel,
8 indicated before, you kind of read them from bottom to the
9 top on it.

10 So Mike Badet sends an e-mail to Peter Ng who is
11 a supervisor in the T-line engineering. CC'd myself as
12 well as Jeff Lockwood. Jeff was a senior transmission
13 specialist that worked for me, and he indicates to Pete:

14 "Pete, we have a notification to change out
15 hardware on the Jefferson-Hillsdale tower 10/66," I
16 believe is what it says. "We did not have a towerman
17 available to change out the attachment flange
18 (frogplate)." A lot of linemen refer to a hanger plate as
19 a frogplate. "So we went ahead and changed out the
20 insulators and all associated hardware. The crew took a
21 photo of the flange, (attached,) and would like to get your
22 recommendation on moving forward with changing out the
23 flange on this tower and other towers in the area."

24 And so Peter responds back, and he includes Randy
25 Hopkins in the e-mail, Gaylon Brock, who -- who was either
26 tower specialist or supervisor during this period of time

1 and as well as Henry Ho. Henry Ho is a mechanical
2 engineer with PG&E. He says:

3 "Mike, looking at the photo of the hanger plate,
4 I would recommend changing it to a new plate. It appears
5 that there is a groove" -- "that there is a groove cutting
6 into the plate probably caused by years of rubbing between
7 the C-hook and the plate. You might want to discuss this
8 with Dale too."

9 Q. All right. And that's -- and that's all we need
10 the read on this one.

11 A. Okay.

12 Q. Caused by years of rubbing between the C-hook and
13 the plate. In your experience, have you seen where a
14 C-hooks or hanger plates or hanger holes or frog plates or
15 flanges or whatever else they're called, based upon the
16 rubbing between C-hooks and the plates?

17 A. During my last tenure with PG&E for a year, I
18 seen a fair number of them.

19 Q. Let's push -- let's push that out, though.

20 A. If you push that out --

21 Q. Let's say pre-initial retirement.

22 A. -- I have -- I have seen where C-hooks have worn
23 ten percent metal loss in the hanger plate, which is
24 probably the same equivalent in the C-hook. I don't think
25 I have ever recalled seeing anything greater than
26 50 percent --

1 Q. Okay.

2 A. -- in it.

3 Q. So would it be fair to say that it -- that it's
4 common and well known that the C-hooks -- the rubbing
5 between the C-hooks and the hanger holes causes wear?

6 A. It's obvious.

7 Q. All right.

8 A. Yes.

9 Q. Show you finally 795. You see Exhibit
10 Number 795? I don't think it's in that stack. It's right
11 up here on the board.

12 A. Okay.

13 [Exhibit No. 795 was identified.]

14 BY MR. NOEL:

15 Q. All I want to know is, in your experience, have
16 you seen wear like that?

17 A. I haven't seen wear equal to that with a tag to
18 replace -- to replace it in one year.

19 Q. Okay.

20 A. But may I?

21 Q. We're talking pre 2018?

22 A. Yes.

23 Q. During your career?

24 A. Yes.

25 Q. All right. So this is not something that's
26 uncommon?

1 A. It's not something that -- insulators and
2 hardware move. Metal to metal is going to wear.

3 Q. That is it. It's been a long morning.

4 Now the jurors have an opportunity to ask you a
5 few questions. So hold tight for a just a second more.

6 All right. I am going to read these two juror --
7 some questions from the jurors.

8 Would the troubleman training, as you remember
9 it, have contained detailed instructions on the importance
10 of inspection of the C-hook and hanger plate complex on
11 the transposition towers?

12 A. I -- I kind of like to answer that in a different
13 way. In the -- in the training that I was involved in,
14 usually that became a question from the transmission
15 troubleman to myself on it. "How do I know when the
16 wear -- the wear is so severe that I need to create a tag
17 on it?" And then we would have that discussion. And then
18 that would basically be carried on then through the other
19 classes or even -- even a follow-up on it. Because that
20 would be an indicator that -- it's actually a good
21 indicator that, you know, they're talking about it. But
22 they are journeyman lineman, and they have been on towers.
23 They have hung insulators with C-hooks in hanger plates.
24 They have that experience. They have that knowledge.
25 They -- even though they may not be exposed to the
26 transmission in -- in the remainder of their career

1 because they decided to work at a different capacity but
2 still part of the electric side, they would hear about
3 those kinds of failures that would occur out there.

4 We -- one thing that was -- that we were always
5 very open about was when we learned something, we see --
6 we seen something, we shared it. We shared it throughout
7 the system with everybody. But to say that we specific --
8 specifically said, C-hooks and oval eyes and hanger
9 plates, you need to pay more attention to that then broken
10 strands that you might see on a conductor. You talk about
11 all of them together when you're doing the instructing.
12 What -- you know, what is the risk of failed conductors
13 and how many strands, and what's the risk of C-hooks and
14 Y-balls or these other types of cold-end hardware that you
15 have out there. There are some other ones that are
16 actually more riskier than say a C-hook because of their
17 design. But I can't -- to answer the question, I can't
18 say that is specifically something that we targeted. It
19 was more of global looking at and talking about how parts
20 and pieces fit and how they wear.

21 Q. Would such instruction, as you remember it, have
22 contained information on a specific diameter of C-hooks
23 used at hanger plate holds on the transmission lines?

24 A. I think I'm comfortable in saying that the hanger
25 plate hole was pretty universal. But you also have to
26 remember that as the tower gets larger, and you're loading

1 it more, the thickness is going to get -- could get
2 greater in thickness. So in a typical 115 -- but the
3 average is -- is going to be one inch in diameter, but not
4 on -- a quarter inch steel versus a half inch or a
5 three-quarter inch thickness is going to change what type
6 of -- how you're going to see that wear. Matter of fact,
7 it's going to change the hardware on it.

8 Q. Okay. But, sir, you weren't giving specific
9 details as in terms of schematics saying "This hole is
10 going to be one and one-eighth inch in diameter," "This
11 hook is 15/16th of an inch diameter"?

12 A. Correct.

13 Q. All right. Were you or any of those you
14 supervised aware of the appropriate age of the
15 Caribou-Palermo 115 line?

16 A. Well, the people that I supervised were not aware
17 of the Caribou-Palermo line, because I was in the central
18 part of the valley as a supervisor. If you're talking
19 about transmission troublemen, maybe that is where we're
20 going, but during that annual training, yes. They would
21 have been very much aware of -- they would know the line,
22 whether or not they would know the history or the age of
23 it, I -- I -- I wouldn't know whether they would.

24 Q. All right. Did you know prior to the Camp fire,
25 the age of the -- the appropriate age of the
26 Caribou-Palermo?

1 A. I knew the approximate age, yes, sir.

2 Q. Does the age of a transmission line and its
3 structural components figure into where it is
4 classified -- I think we already answered that one.

5 Is it fair to say that during your career, there
6 have been at least six company-wide reorganizations?

7 A. Somebody took a pretty good count.

8 Q. How many of these organizations, to your
9 knowledge, were caused by bankruptcy?

10 A. Oh, gosh. Just the one bankruptcy that I know
11 of.

12 Q. Okay. The next one pertains to 608, let me pull
13 that up here on the board. Exhibit 608 notes that the
14 document in question is the 85th manual change notice.

15 MS. DUPRE-TOKOS: Oh, I guess it does.

16 MR. NOEL: That's what I am trying to figure out.

17 MS. DUPRE-TOKOS: Do you want me to show you?

18 MR. NOEL: Sure.

19 THE WITNESS: It does say that.

20 BY MR. NOEL:

21 Q. Oh, yeah, there it is.

22 A. Yeah.

23 Q. Manual change notice number 85. Is this the 85
24 notice for the year 1987 or since the inception of the
25 manual?

26 A. I -- I think that is reading that it's the 85th

1 change of a document within the T&D manual, which is
2 probably about as thick -- twice as thick as what this is
3 right here. So it's not specific to this -- to this
4 rewrite or change in this document, but of a document
5 within the T&D manual.

6 Q. So that takes care of the first part of the
7 question.

8 How many times in your experience has the
9 transmission line maintenance manual undergone major
10 revisions?

11 A. There are -- when you say "major revisions," I --
12 I think the transition -- the guidelines in the T&D
13 bulletins into the ETPM manual was the biggest change in
14 the process that were used. There is a revision date on
15 the manual itself that is specific to documents but,
16 again, every year, the ISO -- California ISO comes in and
17 audits PG&E and the CPUC audits PG&E and the WSCC audits
18 PG&E. And there may be things that come out of those that
19 require some -- some modifications but they're not severe
20 changes to the manual.

21 Q. All right. In 200 -- 2018, do you know who the
22 Chief Operation Officer of PG&E?

23 A. 2018, it was our CFO and I can't remember his
24 name. He temporarily filled in until Bill Johnson was
25 hired by the Board of Directors.

26 Q. Okay. If a component has failed and proven

1 defective by testing, how is the failed component
2 identified in other towers?

3 A. Well, that's always the tricky one. What you
4 have to do is, if you have the original data sheets of
5 when the line was constructed, those data sheets and a
6 material list is going to be there and you're going to
7 know who you bought the components from. That's one way
8 of finding it out.

9 If it was something that was in the warehouse and
10 the crew just grabbed a -- you know, 25, 30, 50, C-hooks,
11 that's not even likely they would all be from the same
12 manufacturer, the design would be the same come, but it
13 could very well be from a different manufacturer. But
14 when you're doing a reconstruction and a new construction,
15 you're not using warehouse material. That's the good
16 thing about it.

17 So because if you're going to have a failure on a
18 reconstruction or a new construction of a line, it's going
19 to happen within the first three to five years. And then,
20 if you don't have anything, it's not likely after that
21 that you're going to have a failure. It's a early failure
22 occurrence that is going to take place.

23 Q. All right. Suppose a troubleman said that he was
24 not trained to inspect cold-end attachment points. What
25 would be your response?

26 A. My response would be, well, how did he get into

1 the department?

2 Q. When you did training for linemen and troublemen,
3 were there records kept of who were present for your
4 trainings?

5 A. Yes, sir.

6 Q. Do you know the size of the hole in the bracket,
7 the hanger hole, that hooked the C-hook, and do you know
8 the size of the C-hook?

9 A. Again, it's going depend on the type and
10 manufacturer of the C-hook, but it's usually equal to or
11 greater than the diameter -- half the diameter of the hole
12 that it's going to be fitted into.

13 Q. Okay. How long do the training sessions last and
14 did you train on the components of tower that may need to
15 be replaced?

16 A. Ask the question, again, please?

17 Q. How long did the training sessions last?

18 A. The ones that I conducted, they were -- I
19 believe, they were an eight -- eight hours.

20 Q. And did the training include training on the
21 components of the tower that may need to be replaced?

22 A. What was the last part?

23 Q. That may need to be replaced?

24 A. That was all discussed. As part of the training.

25 MR. NOEL: Anything else? Y'all look hungry.

26 That is all we have. Madam Foreperson will have

1 an admonishment for you.

2 GRAND JURY FOREPERSON: Mr. Stinnett, you are
3 admonished not to discussion or disclose at any time
4 outside of this jury room the questions that have been
5 asked of you or your answers unless authorized by this
6 grand jury or the Court.

7 A violation of these instructions on your part
8 may be the basis for a charge against you of contempt of
9 court. This does not preclude from discussing your legal
10 rights with your own attorney.

11 Mr. Stinnett, what I have just said is a warning
12 not to discuss this case with anyone except the Court,
13 your lawyer, or the district attorney.

14 Do you have any questions?

15 THE WITNESS: I have no questions.

16 THE COURT: Thank you for your time today.

17 THE WITNESS: Thank you. Thank all of you.

18 MR. NOEL: Ready for recess?

19 GRAND JUROR NUMBER TWO: Yes, we are.

20 MR. NOEL: Madam Foreperson?

21 GRAND JURY FOREPERSON: Oh, sorry. Yes.

22 MR. NOEL: We're going to be back at 2:00?

23 GRAND JURY FOREPERSON: 2:00.

24

25 [Lunch recess was taken from 12:38 p.m. until 2:07 p.m.
26 whereupon the grand jury came to order in Courtroom 9.]

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[Grand jury role call omitted.]

[Witness enters the room.]

MS. DUPRE-TOKOS: We only the witness table, as
opposed to a witness stand.

GRAND JURY FOREPERSON: Right. Come to the chair and
before you have a seat, would please raise your right hand
to be sworn.

Is it Machuca?

THE WITNESS: Yes.

GRAND JURY FOREPERSON: Sergeant Machuca, do you
solemnly swear that the evidence you shall give in this
matter pending before the grand jury shall be the truth,
the whole truth and nothing but the truth so help you God?

THE WITNESS: I do.

GRAND JURY FOREPERSON: Thank you. Have a seat,
please.

EXAMINATION

BY MS. DUPRE-TOKOS:

Q. Sergeant, would you state and spell your name for
us for the record?

A. Fernando Machuca, F-E-R-N-A-N-D-O, and
M-A-C-H-U-C-A.

Q. And can you tell us where you're employed and in
what capacity?

1 A. I'm employed by the Yuba County Sheriff's
2 Department. I'm a sergeant.

3 Q. And how long have been a sworn law enforcement
4 officer?

5 A. Nine and a half years.

6 Q. How long have you been with the Yuba County
7 Sheriff's Office?

8 A. Six and a half years.

9 Q. And how long have you been a sergeant?

10 A. Six months.

11 Q. Oh, congratulations.

12 A. Thank you.

13 Q. Prior to becoming a sergeant, what was your
14 title?

15 A. I was a detective.

16 Q. And prior to being -- how long were you a
17 detective?

18 A. Oh, a little less than two years.

19 Q. And prior to being a detective, what was your
20 title?

21 A. I was a patrol deputy.

22 Q. Okay. Did you work anywhere prior to the Yuba
23 County Sheriff's Office?

24 A. Yes, I did. I worked three years at the
25 Wheatland Police Department.

26 Q. And any place before that?

1 A. That was it.

2 Q. Were you assigning to assist with the Camp fire?

3 A. I was.

4 Q. And in what capacity did you help out?

5 A. So we were assigned to the coroner's team,
6 basically recovering the remains.

7 Q. And were you on a coroner's team to recover human
8 remains on November 10, 2018?

9 A. Yes.

10 Q. And did you go do a residence at 4220 Schwyhart
11 Lane in Concow?

12 A. Yes.

13 Q. Do you recall if that residence was destroyed?

14 A. It was.

15 Q. And were human remains located at that residence?

16 A. Yes.

17 Q. Was a case number assigned to those remains?

18 A. Yes.

19 Q. Was that 18-19532?

20 A. Yes.

21 Q. Now, you should have in front of you Exhibit 840
22 and that's also up on the screen.

23 [Exhibit No. 840 was identified.]

24 BY MS. DUPRE-TOKOS:

25 Q. At some point, did you learn that this is a
26 photograph of Ellen Walker?

1 A. Yes.

2 Q. And at some point did you learn that the remains
3 associated with case number 18-19532 were those of Ellen
4 Walker?

5 A. Yes.

6 Q. And do recall where the remains of Ms. Walker
7 were located generally?

8 A. They were inside the residence. It appeared to
9 be a bedroom.

10 Q. And then did you also go to a residence at 6664
11 Moore Road in Paradise on that same day?

12 A. Yes.

13 Q. Do you recall if that residence was destroyed, if
14 you recall.

15 A. I don't.

16 Q. Do you recall if human remains were located at
17 that residence?

18 A. Yes.

19 Q. And was a case number assigned to those remains?

20 A. Yes.

21 Q. Was that 18-1 -- was that 18-19533?

22 A. Yes.

23 Q. And then Exhibit 841 should be in front of you.
24 That's also up on the screen.

25 [Exhibit No. 841 was identified.]

26 ///

1 BY MS. DUPRE-TOKOS:

2 Q. Did you at some point learn that this is a
3 photograph of Rafaela Andrade?

4 A. Yes.

5 Q. And did you also at some point learn that the
6 remains associated with case number 18-19533 were those of
7 Rafaela Andrade?

8 A. Yes.

9 Q. And do you recall whether Ms. Andrade's remains
10 were located inside the house or outside?

11 A. I believe there were located inside. I would
12 have to look at the report.

13 Q. Okay. But your recollection is that they were
14 inside?

15 A. Yes.

16 Q. On that same day, did you go do residence at 5848
17 Black Olive Drive, Unit No. 3 in Paradise, California?

18 A. Yes.

19 Q. And do you happen to recall if that residence was
20 destroyed?

21 A. Yes.

22 Q. Was it?

23 A. Yes.

24 Q. It was?

25 A. Yes.

26 Q. And were human remains located at that residence?

1 A. Yes.

2 Q. Was a case number assigned to those remains?

3 A. Yes.

4 Q. And was that 18-19534?

5 A. Yes.

6 Q. And looking at Exhibit 842. Did you at some
7 point learn that this is a photograph of Deborah
8 Morningstar?

9 A. Yes.

10 [Exhibit No. 842 was identified.]

11 BY MS. DUPRE-TOKOS:

12 Q. And did you also at some point learn that the
13 remains associated with case number 18-19534 were those of
14 Deborah Morningstar?

15 A. Yes.

16 Q. Were the remains of Ms. Morningstar found inside
17 the residence or outside?

18 A. They were inside.

19 Q. Okay. And at that time, did you locate anything
20 else that lead you to believe that the remains were likely
21 to be those of Ms. Morningstar?

22 A. There was some indicia in one of the mailboxes.

23 Q. Okay. When you say "indicia," what do you mean?

24 A. Mail.

25 Q. Mail?

26 A. Yes.

1 Q. Was that addressed to Ms. Morningstar?

2 A. Yes.

3 Q. So the mailbox didn't burn?

4 A. No.

5 Q. And then did you also go to 1560 Sunny Acres Road

6 in Paradise, California that same day?

7 A. Yes.

8 Q. And was there anything of note there?

9 A. On Sunny Acres?

10 Q. Yes.

11 A. Well, we found a body.

12 Q. Okay. Where did you find that body?

13 A. I think I might be confused on the addresses. I

14 don't know if that was the one we found in the truck or

15 outside. I think that was -- it was outside.

16 Q. Okay. So where outside?

17 A. If I recall, it was -- it was like near an open

18 field.

19 Q. Okay. So in an open area?

20 A. Yeah, there was some houses around, but it was

21 outside.

22 Q. Okay. And looking at Exhibit 843, did you at

23 some point learn that that's a photograph of Sally Gamboa?

24 A. Yes.

25 [Exhibit No. 843 was identified.]

26 ///

1 BY MS. DUPRE-TOKOS:

2 Q. And you said you found a body. Was a case number
3 assigned to that body?

4 A. Yes.

5 Q. Was that 18-19535?

6 A. Yes.

7 Q. And at some point did you learn that the body
8 that you found in the field that had case number 18-15935
9 that that was Sally Gamboa?

10 A. Yes.

11 Q. Did you go to the address at 5471 Libby Road,
12 Unit No. 34 in Paradise that day?

13 A. Yes.

14 Q. Okay. Do you recall if that residence was
15 destroyed?

16 A. It was.

17 Q. And were any human remains located there?

18 A. Yes.

19 Q. Okay. Were those remains assigned to case number
20 18-15936?

21 A. Yes.

22 Q. Looking at Exhibit 844, at some point, did you
23 learn that that was a photograph of Sheila Rae Santos?

24 A. Yes.

25 [Exhibit No. 844 was identified.]

26 ///

1 BY MS. DUPRE-TOKOS:

2 Q. And at some point, did you also learn that the
3 remains that were associated with case number 18-19536
4 were those of Sheila Rae Santos?

5 A. Yes.

6 Q. And were the remains of Ms. Santos found inside
7 the remains of the residence or outside?

8 A. Inside.

9 Q. Did you also go to 39533 Windermere Lane in
10 Concow that day?

11 A. Yes.

12 Q. And did you locate anything of note there?

13 A. We located a truck that was burned. Off -- it
14 was off the roadway.

15 Q. Okay. Did you find any remains in the truck?

16 A. Yes.

17 Q. Where in the truck did you find those remains?

18 A. It was on the front passenger seat.

19 Q. And you said the truck was off the roadway, what
20 do you mean?

21 A. It was veered off to the side.

22 Q. Okay. It wasn't like it was just pulled over and
23 parked?

24 A. No.

25 Q. Was it far off a roadway or would it still have
26 been visible from the road?

1 A. It was visible.

2 Q. And was a -- the case number 18-19537 assigned to
3 the remains you found that the truck?

4 A. Yes.

5 Q. Looking at Exhibit 845, did you at some point
6 learn that that's a photograph of Marie Wehe?

7 A. Yes.

8 [Exhibit No. 845 was identified.]

9 BY MS. DUPRE-TOKOS:

10 Q. And did you at some point also learn that the
11 remains associated with case number 18-19537, the remains
12 that were found in the truck, were those of Marie Wehe?

13 A. Yes.

14 Q. And that's all I have for you.

15 Does anyone have any questions?

16 Okay. Sergeant Machuca, in regards to Marie
17 Wehe, was there any information regards the driver of the
18 truck?

19 A. There wasn't.

20 Q. Is it possible she was the driver and just moved
21 over?

22 A. It could have been. It's possible.

23 Q. Or there could have been a driver?

24 A. Correct.

25 Q. Okay.

26 A. We tried to locate a VIN or any information on

1 the vehicle, but it was burned. It was too bad.

2 Q. Okay. The next question is, can you tell us
3 specifically how identification was made in each of these
4 individuals?

5 A. I believe it was made through the coroner's
6 office. I believe Sac.

7 Q. Is that -- is that the extent of what you know?

8 A. Yes.

9 Q. Okay.

10 MS. DUPRE-TOKOS: Any other questions? No? Thank
11 you very much, Sergeant.

12 We got you out of here in time.

13 GRAND JURY FOREPERSON: Sergeant Machuca, I need to
14 read you an admonition.

15 You are admonished not to discuss or disclose at
16 any time outside of this jury room the questions that have
17 been asked of you or answers until authorized by this
18 grand jury or the court. A violation of these
19 instructions on your part may be the basis for a charge
20 against you for contempt of court.

21 This does not preclude you from discussing your
22 legal rights with your own attorney.

23 Sergeant Machuca, what I have just said is a
24 warning if you discuss this case with anyone except the
25 court, your lawyer or the district attorney.

26 Do you have any questions?

1 THE WITNESS: No.

2 GRAND JURY FOREPERSON: Thank you for your time.

3 THE WITNESS: Thanks.

4 MR. NOEL: Did everybody get the hand out for

5 (WITNESS #15)?

6 GRAND JURY SECRETARY: No.

7 MR. NOEL: Ready for (WITNESS #15)?

8 GRAND JURY FOREPERSON: Yes.

9 GRAND JUROR NUMBER FOUR: This isn't The (WITNESS

10 #15)?

11 MS. DUPRE-TOKOS: We wish.

12 MR. NOEL: It is a (WITNESS #15).

13 GRAND JURY FOREPERSON: Not "the."

14 MS. DUPRE-TOKOS: I have not seen him in red and

15 gold.

16 GRAND JUROR NUMBER FOUR: You have not seen him in

17 what?

18 MS. DUPRE-TOKOS: Red and gold. Didn't have any big

19 ole rings either.

20 [Witness enters the room.]

21 MR. NOEL: Stay standing and they'll swear you in.

22 GRAND JURY FOREPERSON: (WITNESS #15), if you can

23 raise your right hand to be sworn, please.

24 (WITNESS #15), do you solemnly swear that the

25 evidence you shall give in this matter pending before the

26 grand jury shall be the truth, the whole truth, and

1 nothing but the truth so help you God?

2 THE WITNESS: Yep.

3 GRAND JURY FOREPERSON: Thank you. Have a seat,
4 please.

5

6 **EXAMINATION**

7 BY MR. NOEL:

8 Q. (WITNESS #15), could you please state your full
9 name, spelling your last name for the record?

10 A. (WITNESS #15), [spelling redacted.]

11 Q. Before we get started, you and I know each other,
12 right?

13 A. Correct.

14 Q. We've known each other for a long time?

15 A. A lot of years.

16 Q. Way too many.

17 GRAND JURY FOREPERSON: I'm sorry.

18 BY MR. NOEL:

19 Q. All right. Now that we got that out of the way.
20 You employed?

21 A. Yes.

22 Q. By whom?

23 A. Pacific Gas & Electric.

24 Q. In what capacity?

25 A. I am a regional manager over construction.

26 Q. What does that job entail?

1 A. Currently my job entails rebuilding the fire
2 footprint of Butte County underground in the town of
3 Paradise. What it normally entails on a day-to-day basis
4 is I run the gas inspection, new business inspection
5 program for the state and all of PG&E's --

6 Q. Microphone.

7 A. I'm sorry.

8 Q. It's okay. I will move that closer.

9 A. All of the PG&E's service territory.

10 Q. Walk us through your career with PG&E.

11 A. Started in '97 in power generation. Left the
12 company for a period of about one year -- after a year, I
13 left the company for a period of about one year. Came
14 back to work in general construction line department for
15 about an 11-month period before I transferred to -- to
16 gas, our gas operations construction. Spent -- I don't --
17 I can't even tell you how many years in gas operations,
18 left from gas operations to project management on the --
19 both the gas and electric side at that time. Transitioned
20 over to transmission of electric project management. Left
21 from -- electric project management and became a
22 supervisor over project management for power generation
23 department and was in that position until the San Bruno
24 incident, and then I went back to gas operations where I
25 started a gas transmission construction organization for
26 the company and did that up until the point where they

1 asked me to start a -- come over and start a new
2 inspection gas operations program -- a new inspection
3 program there.

4 So that's currently where I'm at; however, I am
5 serving up in Paradise rebuilding the fire footprint.

6 Q. Explain to us your job as a project manager.
7 How -- how you manage projects or how do you get things
8 done?

9 A. Okay. As a project manager at PG&E, I always
10 call it you own a project basically from cradle to grave.
11 As a project manager, a project is presented to me in the
12 form of -- of what they call -- usually it was an advanced
13 authorization and it gave you X amount of dollars that
14 seeded your project to get it going. You -- as a project
15 manager, you would gather a group of subject matter
16 experts, decide the best alternatives on how to build a
17 project, then see that project through engineering into
18 construction and ultimately into the documentation phase
19 until it's completely closed out.

20 That's what -- that's why I say cradle to grave.
21 Start of engineering all the way through documentation.

22 Q. So in 2007, 2008, 2009, were you working up here
23 in the Feather River Canyon or in the Butte County area?

24 A. Yes.

25 Q. Were you assigned a project to do with
26 Caribou-Palermo line in the Feather River Canyon?

1 A. Yes.

2 Q. Ah, I forget we moved it. You have in front of
3 you Exhibit 838. Do you recognize Exhibit 838?

4 A. Yes, I do.

5 [Exhibit No. 838 was identified.]

6 BY MR. NOEL:

7 Q. What is Exhibit 838?

8 A. This is advanced authorization. This allows you
9 to begin your project. It give you, what we call, seeding
10 money, if you will. It allows you to gather your first
11 group of subject matter experts, hold meetings around the
12 project and ultimately try and determine which alternative
13 and what's the best route to proceed with this project
14 into construction.

15 Q. All right. So let's walk through this form a
16 little bit. Job title.

17 A. Correct.

18 Q. Caribou-Palermo 115 KV Structure and Conductor
19 Replacement, right? So that's the title of the job,
20 right?

21 A. Correct.

22 Q. Goes down gives a location. Job location:
23 Between Highway 70 and Caribou Road, Belden Power House.
24 All the way down and then project description,
25 justification. It says this part is -- "This project is
26 part of PG&E's deteriorated transmission equipment

1 replacement program."

2 Are you familiar with that program?

3 A. I'm -- I'm familiar with the program, yeah.

4 Well, I was. I'm not familiar with what it is nowadays
5 but, yes.

6 Q. What was it?

7 A. This was program that -- every project -- if I
8 can a little bit explain the projects --

9 Q. Go ahead.

10 A. -- how they fall in. Every project within PG&E
11 falls into a certain, we call it a, bucket, a major work
12 category. And that's how that project is funded.
13 There's X amount of funding and every major work category,
14 so, at least, I don't determine which buckets this money
15 comes out of as the project manager, it's just handed to
16 me and this is the -- the major work category that it was
17 represented to me under.

18 Q. Okay. And then we have some figures and the
19 total advanced expenditures requested is \$200,000. So was
20 that your budget?

21 A. Correct, to start, yeah.

22 Q. Okay. And then who is Keith Williams?

23 A. Keith Williams at the time was a manager that
24 basically signed off on this initial seeding money.

25 Q. All right. And we've got page two. Let's walk
26 through page two. Action required. What is the action

1 recommended?

2 A. Sorry, I'm reading it. It's been a little bit of
3 years. So it looks like it is for the preliminary
4 engineering and possible purchasing of any long lead
5 material items that we might discover we're going to need.

6 Q. All right. And then we have background. Says
7 there's already been multiple conductor failures on this
8 line due to the conduct being annealed and parting. Since
9 2002, eight even reports created on this line. Several IR
10 inspections have been performed with follow-up repairs.

11 So all of that is a justification for why this
12 needs to be done?

13 A. Correct.

14 Q. And then down on the bottom on the description of
15 recommendation, it says, "Replace deteriorated structures,
16 conductor, insulators and hardware on the Caribou-Palermo
17 115 line between structures 7/55 and 8/64"?

18 A. Correct. That's the recommendation.

19 Q. All right. So you get this AA, and then what
20 happens?

21 A. I assemble a team. These are the engineers that
22 actually had input into this AA. They've identified
23 issues with the line that need to be repaired, so they --
24 they went through the initial phase of this project so I
25 gathered those folks and, usually, we start off with a
26 kick-off meeting, a team meeting, in this case, where we

1 actually looked at the tower.

2 Q. Okay. Did this project get done before you left
3 to deal with the San Bruno issues?

4 A. No, it did not.

5 Q. Why not?

6 A. We were in the initial phases of trying to come
7 up with a recommendation and given the terrain of the
8 canyon and et cetera, we had to have a lot of testing
9 done, if you would, to see where towers would go. So we
10 were -- a lot of preliminary phases, environmental
11 reviews, things like that that did not allow us to even
12 come up with a final recommendation as of -- as of the
13 time I left. We were still working on that.

14 Q. All right. You should also have in front of you
15 a multi-page document, I believe an eight-page document,
16 marked as Exhibit 839.

17 A. Yes.

18 Q. Will you look through that and tell me if you
19 recognize 839?

20 A. Yes, I do.

21 [Exhibit No. 839 was identified.]

22 BY MR. NOEL:

23 Q. What is 839?

24 A. It's a series of e-mails between myself and --
25 and many of the team members on the transmission electric
26 side.

1 Q. All right. I am going to start walking through
2 these e-mails and as we've learned the e-mails are
3 actually backwards so we're going to start towards the
4 back of the packet with an e-mail from someone named
5 Douglas Cannell on Wednesday, November 4. Do you see
6 that?

7 If it's easier, you can look at it on the big
8 board. I've got it pulled up on the smart board here
9 behind you.

10 A. I left my glasses in the car.

11 Yes, I do. Hold on, okay. I see November 5th.
12 I see November 4th, Greg Starnes. Okay.

13 Q. All right. So first of all, who is Douglas
14 Cannell?

15 A. Doug Cannell would be the program manager.

16 Q. And how does that differ from you?

17 A. Program -- well, that major work category where
18 we talked about deteriorated towers, that would be a
19 program under major work category and as a program
20 manager, they're usually assigned one or more major work
21 categories where they manage the overall budget for those
22 major work categories.

23 Q. Okay. So you manage an individual project?

24 A. Correct.

25 Q. They manage the programs under which those
26 projects are undertaken; is that right?

1 A. That's right.

2 Q. All right. Who is Greg Starnes?

3 A. Greg Starnes, at the time, was our manager on --
4 over project management.

5 Q. And Lee Ellis?

6 A. Lee Ellis was another project manager.

7 Q. Clint Holsey?

8 A. He was my direct supervisor at the time.

9 Q. Ron Nixon?

10 A. He was also a program manager.

11 Q. And John Culbertson?

12 A. And I don't remember what John's role was.

13 Q. Okay. So the e-mail says, "Greg, Ron Nixon, the
14 T-Line maintenance program manager is unavailable. I am
15 trying to make sure that all planning orders in MWC 70,
16 71, 72, 92 and 93 get planned appropriately in PRJ. Could
17 you let me know which projects in these MWC have had
18 project managers formally assigned and which project
19 managers they are. Also, will you be communicated with
20 them to only authorize" -- "will you be communication with
21 them to only plan in PRJ to the authorized and published
22 target?

23 If you can let me know as soon as possible, John
24 Culbertson, myself and the M&C engineers will make sure a
25 plan is input for the others by Friday. Thanks, Doug."

26 Did I read that correctly?

1 A. Yes.

2 Q. All right. What is MWC?

3 A. That's the major work category. So that's the --
4 what we talked about a little bit ago. The transmission
5 deteriorated program is one of those in the major work
6 category. They're assigned a job number.

7 Q. All right.

8 A. Or a major work category number.

9 Q. All right. And what are these numbers 70, 71,
10 72, 92 and 93?

11 A. Different programs. Different major work
12 categories.

13 Q. Okay. PRJ, what does that?

14 A. So PRJ is a computer program within the SAP
15 accounting system where we go in and, on a monthly basis,
16 we identify where we're going to spend our money for
17 projects whether it's construction, engineering,
18 materials. So it's a detailed plan, if you will, in how
19 we're going to spend the money.

20 Q. All right. So let's go up one more. And this is
21 from Gregory Starnes, Wednesday, November 4th to Doug
22 Cannell, CC to yourself, Lee Ellis, Clint Holsey, Ron
23 Nixon, John Culbertson, and it says, "Here is the
24 direction I gave my project managers today regarding
25 detailed planning. My project managers will not match the
26 target if they don't see any way, given the current state

1 of the project that the target can be met. In this case,
2 they will forecast less."

3 And you can stand up and -- at the board if you
4 want. Can you explain to us what this means?

5 A. Yes, I can. So as a -- as a -- when you look at
6 overall project in a major work category for PG&E, all the
7 PRJ, all the different projects within that bucket of
8 money need to match that overall bucket's target. So if
9 it's a million dollars, at the end of the day, each
10 project needs to add up to a million dollars or they have
11 to decide where they need more money, more funding, et
12 cetera. So that's what they're discussing here.

13 Q. Okay. And it says, "Here is a link to the
14 Sharepoint site with the 2010 targets with a column added
15 that shows who the project manager is."

16 What is Sharepoint?

17 A. Sharepoint would be a site where they kept
18 different forms except in this case, it was probably an
19 Excel spreadsheet, that just shows the -- you saw all the
20 major work category numbers on the previous e-mail, it
21 would show those major work categories and the budgets
22 given for each and every project under that major work
23 category.

24 Q. Well, what would be the 2010 targets?

25 A. That would be your overall budget. That's your
26 target.

1 Q. Okay. Next is November 5th from Douglas Cannell
2 to yourself and somebody named Garrett Galimba? Do you
3 know who that is?

4 A. Yeah, Garrett was another project manager out of
5 the Fresno area.

6 Q. And CC to John Culbertson, Ron Nixon and Raymond
7 Thierry.

8 A. Yes.

9 Q. It says, "(WITNESS #15) and Garrett, I see that
10 the Caribou-Palermo Tivy Valley have monthly plans in PRJ.
11 I can't find any proposed target info or even a job
12 description in my reports for Tivy Valley. Could either
13 of you describe this work to me and let me know where the
14 2010 budget figure came from? My records only show a
15 previous job and don't show this one as being funded in
16 2010. Also, the Caribou job was not funded in 2010, it
17 fell below the prioritized cut line and should be removed
18 from the PRJ plan.

19 If you can confirm that these projects didn't
20 receive 2010 target allegations, please remove them from
21 PRJ. Let me know when this is completed."

22 All right. So Caribou plan, Caribou job, not
23 funded in 2010?

24 A. Correct.

25 Q. What does that mean?

26 A. So when they -- when they gave overall budget for

1 that major work category, it was not on the list. It's --
2 it's not in their list. It was not on this gentlemen's
3 list that is looking at it as being funded.

4 Q. Okay. All right. Now, we will get to your --
5 you're responding Monday, November 9th. This is your
6 voice, so can you read it for us?

7 A. Is it all right if I --

8 Q. Oh. Yeah.

9 A. Okay.

10 Q. You can stand up and walk around, feel free.

11 A. So "Caribou-Palermo is to replace deteriorated
12 towers in the Feather River Canyon. We are currently
13 looking at boring samples in the new proposed route to
14 insure we are" --

15 MS. DUPRE-TOKOS: Marc?

16 THE WITNESS: -- "on stable ground." Can you hear
17 me?

18 BY MR. NOEL:

19 Q. Go slow, for her.

20 A. Oh. "We have a year and a half of preliminary
21 work (permits, rights of ways, road work, logging, et
22 cetera.) prior to starting this work. If it is not
23 funding for permitting, et cetera, we could be picking up
24 these towers of the Feather River Canyon when they fall
25 over. Please advise."

26 Q. All right. So this is all the work that you've

1 been doing since your AA was signed to get ready for the
2 project?

3 A. That's correct.

4 Q. Boring samples, permits, right of ways, road
5 work. All of that was done before they cut the funding
6 for that?

7 A. That is correct.

8 Q. All right.

9 A. Or in progress.

10 Q. Okay. And then obviously you're concerned that
11 this project needs to get done and thought that there was
12 a danger of these towers falling down?

13 A. No, not exactly.

14 Q. Okay.

15 A. Would you like me to explain that more?

16 Q. Absolutely.

17 A. Okay. So, obviously, a year and a half into this
18 project, we're very vested into this project, and I am not
19 a -- as a project manager, I'm not an expert in towers or
20 conductors or anything like that. Yeah, do I begin to
21 know the work? Yes. However, my frustrations were that I
22 was running out of funding, could not get it funded and so
23 this was my statement that we'd be picking these up out of
24 the canyon. I didn't really feel that way, but I had a
25 passion about my project and I wanted it to continue. So
26 that's -- that's why that statement -- you know, when you

1 talk about deteriorated structures that would be worse
2 case scenario.

3 Q. All right. And now, we have a response from
4 somebody named Raymond Thierry? It says, "(WITNESS #15),
5 I was researching this project to see if we have scope and
6 authorization in place but could not find any records. Do
7 have a copy of the AA or PA? I'm concerned that we me may
8 spending funds without authorization. Also the PESR does
9 not show an authorized amount. Raymond."

10 So, what does he mean by scope and authorization
11 in place?

12 A. This original document we looked at is an
13 advanced authorization. He did not have a copy of that.

14 Q. Okay. And what is PESR?

15 A. That, I do not remember, Marc, what that acronym
16 is for.

17 Q. Okay. And the authorized amount, would that be
18 the AA amount?

19 A. Yes.

20 Q. All right. And next another long e-mail from
21 you. It's -- can you go ahead and read this for us?

22 A. Okay, project 30606109 CARIBOU-PALERMO, 7/55 to
23 8-64 RPL towers has been in my foul follow-up files since
24 March 2019" -- is that the one? Oh, you're looking at the
25 on up top. That's from my analyst.

26 Q. Oh, that's --

1 A. The bottom one or the top one?

2 Q. I think both of them.

3 A. Okay. Starting at the top, we have an AA for
4 200k which is overrun. Originally submitted for 800k but
5 reduced by Luther Dow during his authorization. We have
6 on numerous occasions asked for Ron Nixon to reauthorize
7 this but it has not been done as of yet. As you can see
8 below, we have asked Greg Starnes to follow up as of last
9 Friday. The bottom line is it needs to be reauthorized.
10 Greg's opinion and I must agree is if it does not get
11 reauthorized we should stop the work."

12 Q. All right. So your AA was for \$200,000?

13 A. Correct.

14 Q. But apparently it was originally requested
15 \$800,000 to look at the project, correct?

16 A. That's correct.

17 Q. And do you recall who Luther Dow was?

18 A. I believe Luther Dow at the time was a VP or
19 senior VP.

20 Q. And what does Ron Nixon have to do with all of
21 this?

22 A. So Ron Nixon was the program manager. As you seen
23 Doug Cannell, we talked about him being the program
24 manager. Ron was in an accident so Doug actually stepped
25 in and took his spot, but Ron is a program manager that
26 requests funding up front.

1 Q. Okay. And then the e-mail down below, who was
2 Cheryl Watkins?

3 A. So Cheryl was my analyst for all my financial
4 stuff.

5 Q. All right. So you grafting an e-fail from her to
6 Greg Starnes into your response to Raymond Thierry, right?

7 A. Uh-huh, correct.

8 Q. Go ahead and read this -- Ms. Watkins' response.

9 A. So "Greg, project 30606109 CARIBOU-PALERMO 7/55
10 to 8/64 RPL TOWERS has been in my follow-up files since
11 March 2009 regarding reauthorizing the AA for \$700,000 for
12 submittal by the project sponsor, Ron Nixon. To date, we
13 have heard nothing. I spoke with (WITNESS #15) this
14 morning to find out how your visit went yesterday and
15 asked him if he brought the issue to your attention and he
16 said, yes and that he was seeking your help to push this
17 forward. Attached is the paperwork. Please let me know
18 if you need anything else. Thanks, Cheryl Watkins."

19 Q. Again, who is Greg Starnes?

20 A. Greg is our manager.

21 Q. He's your manager?

22 A. Correct.

23 Q. Do you remember discussing with Starnes the
24 issues you were having with funding on the Caribou-Palermo
25 project?

26 A. Yeah, I do not remember, Marc.

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Q. Okay.

A. Except for reading these e-mails.

Q. It's been a long time.

A. A long time.

Q. All right. Let's go on the next one, which --
let's start from the bottom up with Raymond Thierry
responds to you on Monday, December 14th: "If you have
not already, you should stop work until the project is
reauthorized."

And then your response to Mr. Thierry?

A. "The reauthorization is way overdue. When can we
expect it? Jerry."

Q. And then the response is? "Doug Cannell has
picked this up since Ron is out on long-term medical.
Doug, what is the schedule?"

So is that one of the problems with the project
that apparently Ron Nixon was not around to authorize?

A. Yeah, that's correct. He was in a -- I recall he
was in a motorcycle accident.

Q. Okay. And from reading Cheryl Watkins e-mail, it
seems like they were many efforts made to get
authorization for the funds with no response; is that
about correct?

A. Correct.

Q. All right. So move onto Wednesday, December
23rd. Doug Cannell to Raymond Thierry and you and CC

1 Cheryl Watkins, Clint Holsey, Gregory Starnes, (EMPLOYEE
2 #3), Chuck Stinnett and (WITNESS #5). By the way, do you
3 know who (WITNESS #5) is?

4 A. Yes. Jim was one of our transmission line
5 engineers.

6 Q. All right. And this e-mail says, "I'm not sure
7 we should reauthorize the AA for 800,000 when... this
8 project fell below the cut line for 2010 approved
9 projects. (Since early December this might have changed
10 because there's been additional monies made available.)

11 B, I'm not convinced all alternatives have been
12 explored. This project, as currently planned, will run
13 over \$10 million and we need to investigate more options
14 besides status quo and this one. Please refer to my
15 e-mail of November 12th in which I ask (WITNESS #15) and
16 Ron to work together to identify alternatives. At that
17 time, I thought Ron could do some limited work; however,
18 since then Ron has been too ill to proceed. (WITNESS #15)
19 has provided the attached word document as a starting
20 point. I think we should exchange additional alternatives
21 with (WITNESS #15), (EMPLOYEE #3), Chuck Stinnett,
22 (WITNESS #5), transmission planning, transmission routing
23 and substation design. Then we can proceed with a PPR to
24 decide which alternative to proceed with.

25 This project is too big to proceed with, without
26 addition analysis on alternatives."

1 All right. That's a lot.

2 A. That's a lot.

3 Q. So first off, am I reading this right? That A is
4 basically, "I don't think we should fund this because it
5 wasn't important enough to get funded in 2010"?

6 A. He's saying it fell below the cut line. "Since
7 early December, this may have changed." And there may
8 have -- looks like there has -- because there has been
9 additional monies made available. So -- so what he's
10 saying there, if you read it really quick, if something
11 doesn't make the cut line and people are putting in their
12 business cases -- putting their business cases in or
13 advanced authorization, often they will take from one
14 bucket of money where -- where there wasn't enough
15 projects to absorb that and they make an executive
16 decision to go ahead and move it over to projects where
17 there needs funding if -- you know, that -- that there
18 wasn't enough to begin with. So that's -- that's what
19 he's getting at. It wasn't approved, but there has been
20 since additional monies made available.

21 Q. All right. What is a PPR?

22 A. I don't know. I have been wondering that myself
23 every time I read this e-mail.

24 Q. And then it goes on, this is an e-mail from
25 11/12, "(WITNESS #15) and Ron, since you two are the most
26 familiar with this project, could you collaborate to come

1 up with a PPR? It doesn't have to be as complete as a
2 formal PPR, but I would should include a good background
3 on why the project is needed, any outages associated with
4 the conditions, and any mentions of safety. I'd like to
5 see several alternatives listed included repairing the
6 towers in place. Please use established unit costs to
7 come up with the estimated costs.

8 Jerry, since you are the project manager and the
9 most familiar, could you start the document? Include the
10 background information you have and the alternatives as
11 you see them along with your estimated cost then send it
12 to Ron.

13 Ron, after reviewing (WITNESS #15)'s alternatives
14 and costs, please include any alternative that you can
15 think of and run a preliminary EASOP" -- E-A-S-O-P.
16 "We'll analyze the alternatives, severity of current
17 conditions and come up with a game plan.

18 Jerry, at this time, this project is over its
19 authorized AA level and was not above the cut line for
20 2010. We need to stop all expenditures on it until an
21 agreed upon plan of action is made and a re-authorization
22 is completed."

23 A. Correct.

24 Q. Am I correct in understanding, "You're over
25 budget. Stop now"?

26 A. You're over budget, stop working.

1 Q. All right. So was any of this paperwork ever
2 done that Mr. Cannell is bringing up here?

3 A. So when you asked me what a PPR is, Doug was from
4 another department, it might have meant something
5 different in his department. In my department, everything
6 he described needing is in what we call a Project
7 Authorization. This is an Advanced Authorization. That's
8 where a -- you use an advanced authorization to come up
9 with your alternatives that went into a project
10 authorization. And it's the advanced authorization where
11 we had run out of money.

12 Q. Okay. Did you ever achieve a project
13 authorization?

14 A. Not while I was there, Marc.

15 Q. Why not?

16 A. We never got through all the alternatives before
17 I left. I left shortly after these series of e-mails to
18 another department.

19 Q. So all that stuff that you were doing leading up
20 to this -- we talked about in a previous e-mail. Why was
21 that being done?

22 A. It takes -- sometimes -- well, the amount of
23 investigation in areas like that, between permitting what
24 you can do in environmentally sensitive areas, we had --
25 we talked about bore sampling in there. They come in and
26 actually drill the mountain side and determine stable

1 ground that will hold towers so they were doing that all
2 that up-front work before you can even identify which
3 alternative -- which route is the best route so there's a
4 lot of preliminary engineering investigation and
5 permitting investigation that goes into these projects.

6 Q. So you guys were spending all of this money
7 determining what alternatives there were, and now you're
8 being told to stop spending money until you tell them what
9 are alternatives to alternatives?

10 A. Correct.

11 Q. Okay. All right. And then, finally, your e-mail
12 from Christmas Eve, Thursday, December 24, 2009.

13 If you can read that for us.

14 A. Okay. So it says, "Doug, we have studied five
15 alternative routes as part of our analysis and job
16 scoping. We are currently narrowed down to two
17 alternatives and need to first our geological bores to
18 insure we have a stable hillside to put these towers on.
19 This is what AAs are for. When we have a confirmed route
20 as a best alternatives, we will include the alternatives
21 in the PA. As a team, we are looking at the re" -- "we
22 are looking at the relocating towers" -- "these towers as
23 cheap as possible and to a stable and constructible
24 location we can access for future maintenance. I have
25 design engineers, civil engineers, foresters, biologists,
26 Land department, Hydro FERC licensing specialists, road

1 construction contractors, FERC, and many others on my
2 team. Trust me, we are doing what is best for the
3 company. Please proceed with revising the AA, and then
4 this project desperately needs funding in 2010 to proceed
5 with permitting. We have already notified FERC of the
6 project, and it will not look good if the towers that we
7 have identified as deteriorated fall over in the canyon
8 because we did not perform the work due to funding. As
9 well the bad towers are not accessible except by air so it
10 would not be very easy" -- "it would not be a very easy
11 emergency fix. If you have any further questions, please
12 let me know and happy holidays. Thanks, (WITNESS #15)."

13 Q. What do you mean you "already notified FERC"?

14 A. Through the permitting process, it's a FERC
15 watershed. So we -- we go through a lot of our permits
16 and to begin that permitting process, it sometimes take a
17 year or two and it may conflict with other FERC projects
18 that they have within our hydro-watershed.

19 Q. All right. And, finally, we're not going to try
20 to read through this entire --

21 A. Okay, thanks.

22 Q. Okay. But the -- the final of it is down at the
23 bottom: "For now, please mothball this project until its
24 genesis is determined, scope has been determined and a AA
25 is reauthorized."

26 Can you explain to us what that means?

1 A. Yeah, he's asking us not to proceed any further
2 until the scope has been determined, a PA put together and
3 then they'll reauthorize the AA.

4 Q. What is the scope?

5 A. The scope is we give them the final alternatives
6 or -- well, actually in this case, we've narrowed it down
7 to two. We give them those two alternatives, we put it in
8 the document, it goes to leadership and they come back
9 with the -- formal approval to proceed with the project.

10 Q. Okay. And what is -- what's the "genesis," he's
11 talking about? He says "until its genesis is determined."

12 A. I can't answer that. I don't know what he means
13 by that.

14 Q. All right. So prior to your leaving for -- to go
15 work in San Bruno or on the gas side, did this project
16 ever get done?

17 A. No, it did not.

18 Q. All right. I think that's all I have.

19 MR. NOEL: Any jurors have questions? All right.
20 Jury has a couple of questions, it looks like, for you, so
21 hang tight a second. I guess this goes to what is in
22 this.

23 To your knowledge, who is Ed Salas and what is or
24 was his position with PG&E?

25 A. Ed Salas, at that time, I would assume was our VP
26 or director of upper management.

1 GRAND JUROR NUMBER FOUR: Say it again?

2 THE WITNESS: He was either a director or VP, upper
3 management.

4 BY MR. NOEL:

5 Q. And then, to your knowledge, was this project
6 ever funded and/or completed?

7 A. That I do not know.

8 Q. Okay. Anything else? I believe that's it.

9 Madam foreperson will have an admonition for you
10 and then you are done.

11 GRAND JURY FOREPERSON: (WITNESS #15), you are
12 admonished not to discuss or disclose at any time outside
13 of this jury room the questions that have been asked of
14 you or your answers until authorized by this grand jury or
15 the court.

16 A violation of these instructions on your part
17 may be the basis for a charge against you for contempt of
18 court. This does not preclude you from discussing your
19 legal rights with your own attorney.

20 (WITNESS #15), what I have just said is a warning
21 not to discuss this case with anyone except the court,
22 your lawyer or the district attorney.

23 Do you have any questions?

24 THE WITNESS: No, I don't.

25 GRAND JURY FOREPERSON: Thank you for your time
26 today.

1 THE WITNESS: Okay.

2 MR. NOEL: All right. You're done.

3 MS. DUPRE-TOKOS: Ready for the next witness.

4 [Witness enters the courtroom.]

5 GRAND JURY FOREPERSON: Okay. Mr. Hancock, you're
6 already ahead of me. Could you raise your right hand to
7 be sworn?

8 Mr. Hancock, do you solemnly swear that the
9 evidence you shall give in this matter pending before the
10 grand jury shall be the truth, the whole truth and nothing
11 but the truth so help you God?

12 THE WITNESS: I do.

13 GRAND JURY FOREPERSON: Thank you. Have a seat,
14 please.

15

16 **EXAMINATION**

17 BY MS. DUPRE-TOKOS:

18 Q. Okay. Could you please state and spell your name
19 for the record.

20 A. Jacob Hancock, H-A-N-C-O-C-K.

21 Q. And can you tell us where you're employed and in
22 what capacity?

23 A. I work for the Butte County District Attorney's
24 Office and I'm a investigator.

25 Q. And how long have been a sworn law enforcement
26 officer?

1 A. I have finished 19 years.

2 Q. And how long have you been with Butte County DA's
3 Office?

4 A. Nine years.

5 Q. Where were you prior to the DA's office?

6 A. I was a with the Butte County Sheriff's Office as
7 a detective for 10 years.

8 Q. Okay. And were -- so 10 years at the sheriff's
9 department or ten years as a detective?

10 A. Ten years at the sheriff's office.

11 Q. Okay. And how long as a detective?

12 A. Seven years as a detective.

13 Q. And prior to that, what was your title?

14 A. Just a deputy. Deputy Sheriff.

15 Q. And do you have any other law enforcement
16 experience prior to that?

17 A. No.

18 Q. Now, were you assigning to assist with the Camp
19 fire here in Butte County?

20 A. Yes, I was.

21 Q. And in what capacity?

22 A. I was assigned to a team of coroners to go around
23 and look for victims of the fire.

24 Q. And were you on a team tasked with looking for
25 victims of the fire on November 14, 2018?

26 A. Yes, I was.

1 Q. And did you go to a residence at 1378 Herman Way
2 in Paradise?

3 A. Yes, I did.

4 Q. And that was on the 14th that you did that?

5 A. Yes.

6 Q. Was that residence destroyed?

7 A. Yes, it was.

8 Q. And were human remains located at that residence?

9 A. Yes, there were.

10 Q. Was a case number assigned to those remains?

11 A. Yes, there was.

12 Q. And was that 18-19665.

13 A. Yes, it was.

14 Q. Now, you should have in front of you Exhibit 846,
15 and it's up on the screen if you want to look there.

16 [Exhibit No. 846 was identified.]

17 BY MS. DUPRE-TOKOS:

18 Q. Did you at some point learn that that's a
19 photograph of Rose Farrell?

20 A. Yes, I did.

21 Q. And did you also at some point learn that the
22 remains associated with case number 18-19665, were those
23 of Rose Farrell?

24 A. Yes, I did.

25 Q. And where were the remains of Ms. Farrell located
26 generally in -- in --

1 A. Well, the -- they were in what appeared to be a
2 front porch area of the residence.

3 Q. Okay. And I've got Exhibit 847 up on the screen.

4 [Exhibit No. 847 was identified.]

5 BY MS. DUPRE-TOKOS:

6 Q. Can you tell us what that's a paragraph of?

7 A. This is standing in the driveway of the
8 residence, looking towards the residence, and it's been
9 burned to the ground. You can see the frames of the
10 residence and the pier blocks in front of the frames,
11 represent where the porch would have been.

12 Q. The what?

13 A. Porch. The pier blocks. These blocks.

14 Q. Oh, okay. The blocks.

15 A. Yeah.

16 Q. Thank you. And when you say "the residence,"
17 that's the one at 1378 Herman Way?

18 A. Yes.

19 Q. And you said the remains were located generally
20 in the porch area or what appeared to be a porch area?

21 A. Correct.

22 Q. And looking at Exhibit 848.

23 [Exhibit No. 848 was identified.]

24 BY MS. DUPRE-TOKOS:

25 Q. Can you tell us what this is a photograph of?

26 A. This a closer photograph of that same residence

1 on Herman. The steel beams being the residence. The
2 concrete blocks being what appeared to be the porch. And
3 the -- the mass in the center, the dark mass, is the
4 remains that we located.

5 Q. Okay. And so that was -- basically the porch was
6 outside, though, correct?

7 A. Yes. Outside the residence.

8 Q. Now, did you go to any other residences that day?

9 A. I did.

10 Q. And what was that address?

11 A. I was sent to -- dispatched originally to 3621
12 Hoffman Road in Concow. It's a very remote area. The
13 roads were -- the road signs were all burned by the fire
14 and the location where I was, I was unable to get a cell
15 signal to determine the exact address so the address was
16 later determined by deputies several days later as 13377
17 Eleran Lane.

18 Q. Eleran?

19 A. Eleran, yes.

20 Q. And that's in Concow?

21 A. In Concow, yes.

22 Q. And when you got there, did you locate anything
23 of note?

24 A. We located human remains there as well.

25 Q. Okay. Before we get there, looking at
26 Exhibit 849.

1 [Exhibit No. 849 was identified.]

2 BY MS. DUPRE-TOKOS:

3 Q. Did you, at some point in time, learn that that's
4 a photograph of Richard Brown?

5 A. Yes.

6 Q. Now you said you located human remains at the
7 Eleran address -- Eleran Lane address. Where were those
8 remains located?

9 A. There was located underneath a pick-up truck in
10 the driveway.

11 Q. Okay. Were -- was a case number assigned to
12 those remains?

13 A. Yes.

14 Q. Was that 18-19697?

15 A. Yes.

16 Q. And I'm showing you Exhibit 850.

17 [Exhibit No. 850 was identified.]

18 BY MS. DUPRE-TOKOS:

19 Q. Can you tell us what that's a photograph of?

20 A. This is a photograph of the truck we located on
21 the property, and if you look underneath the back right
22 rear wheel, you will see the -- the decedent.

23 Q. Okay. And those were Mr. Brown's remains?

24 A. Yes.

25 Q. Okay. And that's all I have.

26 Does anyone have any questions? Anyone?

1 GRAND JUROR NUMBER TWO: He's writing it.

2 GRAND JUROR NUMBER FOUR: Just not finished writing.

3 MR. NOEL: The jurors have potential questions for
4 you also.

5 THE WITNESS: Okay.

6 BY MS. DUPRE-TOKOS:

7 Q. And Investigator Hancock, if you know, can you
8 tell us specifically how identification was made on these
9 individuals?

10 A. Both of those individuals were identified using
11 DNA analysis from relatives. One was -- they were both
12 their children, direct children in both of those cases.

13 Q. Okay. Thank you. Any other questions?

14 Okay. Thank you very much.

15 GRAND JURY FOREPERSON: Mr. Hancock, before you
16 leave.

17 You're admonished not to discuss or disclose any time
18 outside this jury room the questions that have been asked
19 of you or your answers until authorized by this grand jury
20 or the court.

21 A violation of these instructions on your part
22 may be basis for a charge against you of contempt of
23 court. This does not preclude you from discussing your
24 own legal rights with your attorney.

25 Mr. Hancock, what I just said was a warning not
26 to discuss this case with anyone except the court, your

1 lawyer or the district attorney.

2 Do you have any questions?

3 THE WITNESS: No.

4 GRAND JURY FOREPERSON: Thank you for your time
5 today.

6 MR. NOEL: You'll be back.

7 GRAND JURY FOREPERSON: He'll be back?

8 MR. NOEL: He'll be back.

9 [Witness enters the courtroom.]

10 GRAND JURY FOREPERSON: Mr. Angle, can you please
11 raise your right hand to be sworn, please.

12 Do you solemnly swear that the evidence you shall
13 give in this matter pending before the grand jury shall be
14 the truth, the whole truth and nothing but the truth so
15 help you God.

16 THE WITNESS: I do.

17 GRAND JURY FOREPERSON: Thank you. Have a seat.

18

19 **EXAMINATION**

20 BY MS. DUPRE-TOKOS:

21 Q. Could you please state your name and spell it for
22 the record?

23 A. It's Jonathan Angle, A-N-G-L-E.

24 Q. And where are you employed and in what capacity?

25 A. I'm employed with a Butte County District
26 Attorney's Office and I'm an investigative lieutenant.

1 Q. And how long have you been at the DA's office?

2 A. 13 years as of last week.

3 Q. Oh, congratulations. How long have you been
4 lieutenant?

5 A. Approximately a year and a half now.

6 Q. What was your title prior to becoming lieutenant?

7 A. I was an investigator.

8 Q. And prior to working at the DA's office, where
9 did you work?

10 A. I was a police officer for a Paradise Police
11 Department for approximately six and a half years.

12 Q. And did you have any sworn law enforcement
13 experience prior to Paradise Police Department?

14 A. Yes. I started my career with the Butte County
15 Sheriff's Department as a deputy sheriff, and I worked
16 there approximately eight and a half years.

17 Q. Were you assigned to assist with the Camp fire?

18 A. Yes.

19 Q. And what was the -- in what capacity were you
20 assigned to assist?

21 A. Well, there was lots, but on the -- the -- the
22 last three or four days that I was up there, I was
23 assigned to an anthropology group to take them to
24 different locations to attempt to attempt to locate
25 potential fire victims.

26 Q. Okay. And were you on a team trying to locate

1 potential fire victims on November 12, 2018?

2 A. Yes.

3 Q. And did you go to a residence at 5303 Sawmill
4 Road in Paradise?

5 A. Yes, I did.

6 Q. Okay. Was that residence destroyed?

7 A. Yes.

8 Q. And were any human remains located in the ruins
9 of the house?

10 A. Yes, there was.

11 Q. Okay. Was a case number assigned to those
12 remains?

13 A. Yes.

14 Q. Was that 18-19617?

15 A. Yes.

16 Q. And you should have in front of you Exhibit 851.
17 It's also on the screen.

18 [Exhibit No. 851 was identified.]

19 BY MS. DUPRE-TOKOS:

20 Q. At some point in time, did you learn that that's
21 a photograph of Frederick Salazar?

22 A. Yes, I did.

23 Q. Did you at some point also learn that the remains
24 associated with 18-19617 were those of Frederick Salazar?

25 A. Yes.

26 Q. And then looking at Exhibit 852.

1 [Exhibit No. 852 was identified.]

2 BY MS. DUPRE-TOKOS:

3 Q. Can you tell us what that's a photograph of?

4 A. The -- the remains of the burned residence at
5 5303 Sawmill.

6 Q. And Exhibit 853.

7 [Exhibit No. 853 was identified.]

8 BY MS. DUPRE-TOKOS:

9 Q. Can you tell us what that's a photograph of?

10 A. Skeletal remains.

11 Q. Of?

12 A. Mr. Salazar.

13 Q. So were you also on a team that had similar
14 duties on November 13, 2018?

15 A. Yes.

16 Q. And did you go to a residence at 5883 Copeland
17 Road in Paradise?

18 A. Yes, I did.

19 Q. Was that residence destroyed?

20 A. Yes, it was.

21 Q. And were any human remain located there?

22 A. Yes.

23 Q. Was a case number assigned to those remains?

24 A. Yes.

25 Q. Was that 18-19633?

26 A. Yes.

1 Q. And looking at Exhibit 854.

2 [Exhibit No. 854 was identified.]

3 BY MS. DUPRE-TOKOS:

4 Q. At some point in time, did you learn that's the
5 photograph of Victoria Taft?

6 A. Yes.

7 Q. And at some point in time, did you also learn
8 that the remains associated with 18-19663 were those of
9 Victoria Taft?

10 A. Yes.

11 Q. And looking at Exhibit 855.

12 [Exhibit No. 855 was identified.]

13 BY MS. DUPRE-TOKOS:

14 Q. Can you tell us what that is a photograph of?

15 A. It's the burned remains of the residence at 5883
16 Copeland Drive -- or Road.

17 Q. And looking at Exhibit 856.

18 [Exhibit No. 856 was identified.]

19 BY MS. DUPRE-TOKOS:

20 Q. Can you tell us what that is a photograph of?

21 A. Very little of the skeletal remains located at
22 the residence.

23 Q. And were those remains located inside or outside
24 of the residence?

25 A. They would have been inside the -- that yellow
26 tape area, which was designated as inside of the

1 residence.

2 Q. Okay. I have nothing further. Let's see if any
3 of the jurors have any questions.

4 If you know, can you tell us specifically how
5 identification was made on each of these individuals?

6 A. From looking at the coroner's reports -- and I
7 might get them confused. One was by DNA, I believe, and
8 the other one was by dental records. I believe
9 Mr. Salazar was -- and I might be out of place without
10 seeing the report -- I believe was by dental records and I
11 think Ms. Taft by DNA.

12 Q. Okay. Thank you. And I believe -- any other
13 questions? I believe madam foreperson has an admonition
14 for you.

15 GRAND JURY FOREPERSON: Lieutenant Angle, you're
16 admonished not to discuss or disclose any time outside
17 this jury room the questions that have been asked of you
18 or your answers until authorized by this grand jury or the
19 court.

20 A violation of these instructions on your part
21 may be the basis for a charge against you of contempt of
22 court. This does not preclude you from discussing your
23 own legal rights with your own attorney.

24 Mr. Angle, what I just said was a warning not to
25 discuss this case with anyone except the court, your
26 lawyer or the district attorney.

1 Do you have any questions?

2 THE WITNESS: No, I do not.

3 GRAND JURY FOREPERSON: Thank you for your time
4 today.

5 THE WITNESS: Thank you.

6 MR. NOEL: Is that -- that's it.

7 MS. DUPRE-TOKOS: That's it for today.

8 MR. NOEL: That is what we have for today. I told
9 you 3:00ish. It's 3:20, so we didn't do that bad today.

10 GRAND JURY FOREPERSON: Are we entering the exhibits
11 from today?

12 MR. NOEL: Yes.

13 MS. DUPRE-TOKOS: Yes, please.

14 MR. NOEL: All of the exhibits. And that includes
15 some of the one from earlier that we --

16 GRAND JURY SECRETARY: The EPTM manuals?

17 MR. NOEL: Yes.

18 GRAND JURY FOREPERSON: Okay.

19 MR. NOEL: We still have some exhibits out there that
20 are dangling, waiting for final i's to be dotted and T's
21 to be crossed.

22 All right. So we are done for the day.

23 GRAND JURY FOREPERSON: Okay. It's been approved.

24 GRAND JUROR NUMBER FOUR: What does Friday look like
25 just out of curiosity?

26 MR. NOEL: Cloudy, chance of meatballs. No,

1 unfortunately, lots more death evidence.

2 MS. DUPRE-TOKOS: Well, more but different --
3 different types. Hopefully a good chunk of --

4 GRAND JUROR NUMBER THIRTEEN: This day went pretty --
5 pretty fast.

6 GRAND JUROR NUMBER FOUR: Just to tell you, if you
7 guys don't ask, I am going to ask how they identified
8 them.

9 MR. NOEL: Yeah.

10 GRAND JUROR NUMBER FOUR: Because I think that's an
11 important piece of information.

12 MR. NOEL: Well, but there's -- I will let you know,
13 and I was going to lead into that, there's a lot more
14 coming in. You know, basically for what these bodies --
15 the -- all -- all of our decedents, there's different
16 phases and you have the finders, who you've been hearing
17 from. These are the guys who are out combing through the
18 ruins and finding the remains of -- of bodies, tagging
19 them, literally bagging them, and--

20 GRAND JUROR NUMBER FOUR: So me asking them that
21 question, is that hearsay on his part?

22 MR. NOEL: Yeah.

23 GRAND JUROR NUMBER FOUR: Oh.

24 MR. NOEL: Oh yeah, it's huge hearsay.

25 MS. DUPRE-TOKOS: But --

26 MR. NOEL: Go ahead.

1 MS. DUPRE-TOKOS: In your PowerPoints, you have the
2 slide that has the four things, and then a check mark and
3 sometimes it has two check marks. So identification is
4 one of the things.

5 GRAND JUROR NUMBER THIRTEEN: We will get to it.

6 MS. DUPRE-TOKOS: We're going to be getting to it.

7 MR. NOEL: Right. So identification is something we
8 are going to be dealing with in a couple of different
9 ways. And like you said, and -- and when I got up here, I
10 was going one way and we have gone off in another is we
11 want to spare you guys as much of the graphic details, as
12 much of the death evidence as possible. So we think that
13 we have a way to do that by using the proof things like
14 identity, and the worst part of it is, the most gut
15 wrenching of the evidence is what is called the proof of
16 life evidence. Showing that these people were living when
17 -- when the Camp fire hit.

18 We think we can do that by using death
19 certificate, which are official records of the county of
20 Butte, of the state of California and have all that
21 information on there. But just to hedge our bets incase
22 somebody else comes on down the line and says, "No, see,
23 this doesn't work." We're going to choose about six to
24 ten of these deaths --

25 MS. DUPRE-TOKOS: Really?

26 MR. NOEL: -- that we -- yes.

1 MS. DUPRE-TOKOS: Oh, good to tow.

2 MR. NOEL: That we're going to focus on and we're
3 going to go into a lot more evidence.

4 MS. DUPRE-TOKOS: Well, we're also calling the
5 forensic pathologist --

6 MR. NOEL: Yes.

7 MS. DUPRE-TOKOS: -- who is going to go through every
8 cause of death.

9 GRAND JUROR NUMBER FOUR: How many of the -- okay,
10 first of all, what's the number? 82? 80 --

11 MR. NOEL: 83.

12 GRAND JUROR NUMBER FOUR: 83. Okay. How many of
13 those do you guys feel like there's sufficient evidence to
14 say --

15 MS. DUPRE-TOKOS: 83.

16 GRAND JUROR NUMBER FOUR: 83?

17 MR. NOEL: That's not the number that you read. The
18 number that generally you'll see in all of the public
19 stuff is 85. One of those people committed suicide.
20 Basically, he did not want to burn to death so he killed
21 himself. The worst part of that is that the fire ended up
22 turning and his house didn't burn down.

23 Another one, and this is what we were talking
24 about proof of life --

25 MS. DUPRE-TOKOS: Marc, do you still want to be on
26 the record?

1 MR. NOEL: Oh, yeah. There's another one that -- a
2 -- a woman that we cannot show -- we don't have positive
3 evidence to know that she was alive on the morning of
4 November 8th. So that's where we --

5 MS. DUPRE-TOKOS: Or that the fire killed her if she
6 was.

7 MR. NOEL: Yeah. So we're looking at 83. Like we
8 said, we have pathologists coming in to talk about the
9 autopsies and whatever else coming up over the course of
10 the next few weeks and trying to do it as lean and as
11 quick and painless as possible.

12 MS. DUPRE-TOKOS: Yeah, we're really trying not to
13 dwell on anything and certainly not any of the more
14 gruesome aspects of any of this. And like we said before,
15 we know it's upsetting, and so that's why we're trying to
16 streamline it as much as possible and go through it as
17 quickly as we did today. We know that was really fast,
18 but it got you the information that you needed, and that's
19 what we're going to keep trying to do.

20 GRAND JUROR NUMBER FOUR: Do --

21 MR. NOEL: That's --

22 GRAND JUROR NUMBER FOUR: -- we --

23 MR. NOEL: Go ahead.

24 GRAND JUROR NUMBER FOUR: Do we have a follow-up
25 witness to (WITNESS #15) that would be able to affirm one
26 way or the other if that project was ever completed?

1 MR. NOEL: Yes. That witness was named in some of
2 those e-mails, (WITNESS #5), was supposed to be the
3 follow-up witness today to (WITNESS #15). Unfortunately,
4 (WITNESS #5)'s wife passed away, and so we told him,
5 "Don't worry about this today." So he's taking care of
6 his family. And so that's why we're -- we knew we were
7 going to be a little short today because that witness, we
8 don't have.

9 So you will be hearing in the future from
10 (WITNESS #5). And so Friday is going to be more finders
11 and other --

12 MS. DUPRE-TOKOS: And possibly --

13 MR. NOEL: And possibly death certificates.

14 MS. DUPRE-TOKOS: Possibly.

15 MR. NOEL: Next Tuesday, hopefully, we will hear from
16 some of these engineers whose names you've been hearing
17 recently. Henry Ho, Feven Mihretu; the head of the
18 engineering department or their boss at least, Mukul
19 Shakur, and then Warren Ma, who, if you remember, was the
20 guy what comes up with formulation of how long it should
21 take to do the inspections and patrols.

22 So if there's anything else that you guys want to
23 hear from us, let us know. The main question, going back
24 to it, is after hearing a couple of days and hearing about
25 a few dead bodies, how are you guys all doing?

26 GRAND JUROR NUMBER TWO: Today was pretty easy.

1 GRAND JUROR NUMBER FOUR: It was --
2 MR. NOEL: Yeah.
3 GRAND JUROR NUMBER TWO: Better than the first day.
4 MR. NOEL: Okay.
5 GRAND JUROR NUMBER TWO: I don't think it was as big
6 a shock today as it was --
7 MS. DUPRE-TOKOS: Right.
8 GRAND JUROR NUMBER TWO: The first day. I think we
9 were all ready for it this time versus, "Hey, we're doing
10 death evidence today" --
11 MR. NOEL: Yep.
12 GRAND JUROR NUMBER TWO: -- which was kind of dropped
13 on us the first day, so I think was a little rough then.
14 MR. NOEL: Yep.
15 GRAND JUROR NUMBER FOUR: I think the format you
16 chose is probably as good as it gets.
17 MR. NOEL: Okay.
18 MS. DUPRE-TOKOS: Good. Thank you.
19 MR. NOEL: All right.
20 GRAND JUROR NUMBER THIRTEEN: I have a question.
21 MR. NOEL: If anybody -- if anybody starts having
22 problems with it, let us know.
23 GRAND JURY FOREPERSON: Hold on. One more thing,
24 please. Just want to let you know juror number 19 will
25 not be returning after today.
26 MS. DUPRE-TOKOS: What?

1 GRAND JURY FOREPERSON: So say your goodbyes now to
2 juror number 19.

3 GRAND JUROR NUMBER TWO: Another one down, uh-oh.

4 MR. NOEL: So what does that leave us with, 16?

5 GRAND JURY FOREPERSON: That leaves us at 16.

6 GRAND JUROR NUMBER TWO: Really?

7 GRAND JUROR NUMBER THIRTEEN: The guy that -- the
8 gentlemen was PG&E re called that they had several
9 trainings, and a lot of the troublemen and linemen said
10 they didn't have training. But he also said when these
11 guys went to the training, they're on record that they
12 were there, and it seems to me that these guys were lying.
13 And I'd like to kind of find out if we can get those
14 records that they were there. Because I think these guys
15 are the guys that screwed up.

16 MR. NOEL: We have records of training. But they are
17 basically Excel spreadsheets showing all the trainings
18 that people were supposed to -- supposedly went to for
19 however many years. For instance, you look at somebody
20 like (WITNESS #1), I think it's a five-page spreadsheet
21 showing class after class after class after class.

22 But in terms of having sign-in sheets or anything
23 like that. We don't have any proof for the troublemen.
24 We have not been able to locate any. So we will keep
25 trying, and we may present that stuff, but we will see.

26 All right. So are we in recess?

1 GRAND JURY FOREPERSON: We are. Monday at 8:30.

2 MR. NOEL: No, no, Friday.

3 GRAND JURY FOREPERSON: Friday.

4 [Matter adjourned at 3:29 P.M.]

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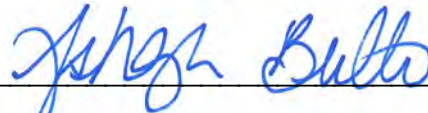
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COURT REPORTER'S CERTIFICATE

THIS IS TO CERTIFY THAT I, ASHLEIGH BUTTON, A
CERTIFIED SHORTHAND REPORTER OF THE STATE OF CALIFORNIA,
WAS PRESENT AT THE TIME AND PLACE THE FOREGOING GRAND JURY
PROCEEDINGS WERE HAD AND TAKEN IN THE WITHIN MATTER; AND
THAT AS SUCH SHORTHAND REPORTER I DID TAKE DOWN IN
SHORTHAND WRITING THE AFOREMENTIONED PROCEEDINGS; AND
AFTERWARDS CAUSED MY SAID SHORTHAND WRITING TO BE
TRANSCRIBED INTO TYPEWRITING; AND THE FOREGOING PAGES,
BEGINNING AT THE TOP OF PAGE 1 TO AND INCLUDING PAGE 180
HEREOF, CONSTITUTE A FULL, TRUE, ACCURATE, AND COMPLETE
RECORD OF THE PROCEEDINGS.

WITNESS MY HAND 17TH DAY OF JUNE, 2022.



ASHLEIGH BUTTON, CSR #14013

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

BCSC-2019-GJ-01

REDACTED
CERTIFIED
COPY

_____/

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

FRIDAY, JANUARY 17, 2020

VOLUME 31

OROVILLE, BUTTE COUNTY, CALIFORNIA

JENNIFER L. HUNT, CSR 10735, OFFICIAL COURT REPORTER

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APPEARANCES:

FOR THE BUTTE COUNTY

DISTRICT ATTORNEY'S OFFICE:

(Not present) Michael L. Ramsey, District Attorney

(Present) Marc Noel, Deputy District Attorney

(Present) Jennifer Dupre-Tokos, DDA

25 County Center Drive

Oroville, California 95965

FOR THE STATE OF CALIFORNIA

DEPARTMENT OF JUSTICE

OFFICE OF THE ATTORNEY

GENERAL:

(Not present) Nicholas M. Fogg, Deputy Attorney General

(Not present) Megan Richards, Deputy Attorney General

1300 I Street

Sacramento, California 95814

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OROVILLE, BUTTE COUNTY, CALIFORNIA

FRIDAY, JANUARY 17, 2020

8:30 a.m.

(Confidential Grand Jury Proceedings)

-oOo-

[ROLL CALL OMITTED.]

[DISCUSSION OMITTED.]

GRAND JURY FOREPERSON: Mr. Burnett, before you
have a seat, please raise your right hand to be sworn.

SERGEANT SAM BURNETT
having been called as a witness in
the matter now pending, having been first
duly sworn, testifies as follows:

THE WITNESS: I do.

GRAND JURY FOREPERSON: Thank you. Have a
seat, please.

EXAMINATION

BY MS. DUPRE-TOKOS

Q. Can you make sure you speak into the
microphone.

A. Yes.

Q. Could you, please, state and spell your name

1 for the record.

2 A. It's Sam Burnett, B-U-R-N-E-T-T.

3 Q. And where are you employed and in what
4 capacity?

5 A. At the Butte County Sheriff's Office, and I'm a
6 sergeant.

7 Q. How long have you been a sworn law enforcement
8 officer?

9 A. Almost 26 years.

10 Q. And how long have you been at the sheriff's
11 office?

12 A. The entire time. My original law enforcement
13 career started in here.

14 Q. How long have you been a sergeant?

15 A. Little over four years, I think.

16 Q. And prior to that, what was your title?

17 A. Well, I've had several. I was a deputy
18 sheriff, I was a detective for nine years, and I've
19 worked in several areas of the sheriff's office.

20 Q. Now, were you assigned to assist with the Camp
21 Fire?

22 A. Yes.

23 Q. In what capacity?

24 A. Initially, I was assigned to do evacuations.
25 During the first day of the fire, I was doing
26 evacuations. After that, I was assigned to the Coroner's

1 Unit and I supervised the coroners and anthropologists.

2 Q. Did you actually go out and help look for
3 victims of the fire?

4 A. Yes. I'm pretty sure I went to almost every
5 scene where there was a coroner's case.

6 Q. And did you go out -- all probability then you
7 went out November 12th, helped recover any victims that
8 were located?

9 A. Yes.

10 Q. And did you go to a residence at 1865 Norwood
11 Circle in Paradise on that day?

12 A. Yes.

13 Q. Was that residence destroyed?

14 A. Yes.

15 Q. Were human remains located at that residence?

16 A. Yes.

17 Q. How many human remains were located there?

18 A. At the time, I wasn't sure. I believe -- is
19 that the one where there was three? I believe there was
20 three located there.

21 Q. And were you responsible -- how many were you
22 responsible for recovering the remains of?

23 A. Well, it was, it was kind of complicated
24 because we had the anthropologists there, and we were
25 trying to figure out how many sets of remains there were.
26 We confirmed that there were two initially, but we

1 weren't able to do the complete removal, and the
2 anthropologists had to come back the next day. And I
3 believe later on they determined there was a third one.
4 So I took the reports on two.

5 Q. Okay. And were case numbers assigned to those
6 remains?

7 A. Yes.

8 Q. And were they 18, dash, 19605 and 18, dash,
9 19967?

10 A. Yes.

11 Q. Hang on. Let me give you the exhibits, make
12 your life a little easier and not strain your neck.

13

14 (Grand Jury Exhibit 937 was introduced.)

15

16 Q. Okay. So now you should have in front of you
17 Exhibit 937?

18 A. Yes.

19 Q. That's also what's up on the screen?

20 A. Yes.

21 Q. Did you at some point learn that that's a
22 photograph of Ishka Heffern?

23 A. Yes.

24 Q. At some point did you learn that the remains
25 associated with case number 18, dash, 19605 were those of
26 Ishka Heffern?

1 A. Yes.

2

3 (Grand Jury Exhibit 938 was introduced.)

4

5 Q. And looking at Exhibit 938, did you at some
6 point learn that that's a photograph Matilde Heffern?

7 A. Yes.

8 Q. At some point did you learn that the remains
9 associated with case number 18, dash, 19967 were those of
10 Matilde Heffern?

11 A. Yes.

12

13 (Grand Jury Exhibit 939 was introduced.)

14

15 Q. In looking at Exhibit 939, can you tell us what
16 that's a photograph of.

17 A. That's the bathtub located at that residence.

18 Q. Okay.

19 A. And the remains inside.

20 Q. And the remains of who?

21 A. I believe that was Matilde, but I'm -- I would
22 have to look at my paperwork to see.

23 Q. Were any of the remains located at that
24 residence comingled?

25 A. Yes.

26 Q. And who were the two people's whose remains

1 were comingled?

2 A. Matilde and Ishka; the two that I'm aware of.

3 Q. Okay. And were their remains located comingled
4 in the bathtub?

5 A. Yes.

6 Q. Okay. And just so everyone understands, what
7 does "comingled" mean?

8 A. Mixed together.

9 Q. So they died very close together and their
10 remains ended up mixed together?

11 A. Yes.

12 Q. And did you also go out to an address, 8391
13 Montna Drive in Paradise on November 13th?

14 A. Yes.

15 Q. And, again, that's 2018?

16 A. Yes.

17 Q. Was that residence destroyed?

18 A. Yes.

19 Q. Were human remains located in that residence?

20 A. Yes.

21 Q. Was a case number assigned to those remains?

22 A. Yes.

23 Q. Was that case number 18, dash, 19655?

24 A. Yes.

25

26 (Grand Jury Exhibit 940 was introduced.)

1
2 Q. At some point did you learn that that's a
3 photograph -- looking at Exhibit 940 -- at some point did
4 you learn that that's a photograph of Anna Hastings?

5 A. Yes.

6 Q. And at some point did you also learn that the
7 remains associated with case number 18, dash, 19655 were
8 those of Anna Hastings?

9 A. Yes.

10
11 (Grand Jury Exhibit 941 was introduced.)
12

13 Q. And then looking at Exhibit 941, can you tell
14 us what that's a photograph of?

15 A. That's some of the remains that were collected.

16 Q. Collected from 8391 Montna Drive?

17 A. Yes.

18 Q. And so those would be Ms. Hastings' remains?

19 A. Yes.

20 MS. DUPRE-TOKOS: Nothing further.

21 Any questions?

22 GRAND JURY FOREPERSON: I have to read --
23 Deputy Burnett, I have to read an admonition to you.

24 Deputy Burnett, you are admonished not to
25 discuss or disclose at any time outside of this jury room
26 the questions that have been asked of you or your answers

1 until authorized by this Grand Jury or the Court. A
2 violation of these instructions on your part may be the
3 basis for a charge against you of a contempt of court.
4 This does not preclude you from discussing your legal
5 rights with your own attorney.

6 Deputy Burnett, what I have just said is a
7 warning not to discuss this case with anyone except the
8 court, your lawyer, or the district attorney. Any
9 questions?

10 THE WITNESS: Nope.

11 GRAND JURY FOREPERSON: Thank you for your time
12 today.

13 THE WITNESS: Thank you.

14 GRAND JURY FOREPERSON: Can you raise your
15 right hand to be sworn, please, Deputy Raggio.

16
17 DEPUTY JESSICA RAGGIO
18 having been called as a witness in
19 the matter now pending, having been first
20 duly sworn, testifies as follows:

21
22 THE WITNESS: I do.

23 GRAND JURY FOREPERSON: Thank you. Have a
24 seat, please.

25
26 EXAMINATION

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BY MS. DUPRE-TOKOS

Q. Could you please state and spell your name for the record.

A. Jessica Raggio, R-A-G-G-I-O.

Q. And where are you employed and in what capacity?

A. I'm employed at the Butte County Sheriff's Office as a deputy sheriff.

Q. And you can pull the microphone closer instead of leaning in.

How long have you been a sworn law enforcement officer?

A. I've been a sworn law enforcement officer for five and a half years.

Q. And how long have you been at the sheriff's office?

A. About a year and a half.

Q. Where were you prior to the sheriff's office?

A. I was a sworn officer with the Oroville Police Department.

Q. And how long were you there?

A. As a sworn officer, I was there for approximately four years.

Q. So you said "as a sworn officer," so what did you do before that?

1 A. I was also a police cadet and dispatcher, so I
2 was there a total eight and a half years.

3 Q. Do you have any other law enforcement
4 experience?

5 A. That would be my total law enforcement
6 experience. In addition to that, I also have a police
7 academy.

8 Q. Now, were you assigned to assist with the Camp
9 Fire?

10 A. Yes.

11 Q. In what capacity?

12 A. I was assisting with essentially the Coroner's
13 Unit in recovering remains of people that were found.

14 Q. Were you on a team doing that on November 11th,
15 2018?

16 A. Yes.

17 Q. Did you go to a residence at 5684 Clara Lane in
18 Paradise that day?

19 A. Yes.

20 Q. Was that residence destroyed?

21 A. Yes.

22 Q. And were human remains located at that
23 residence?

24 A. Yes.

25 Q. And was a case number assigned to those
26 remains?

1 A. Yes.

2 Q. And was that case number 18, dash, 19568?

3 A. Yes.

4

5 (Grand Jury Exhibit 942 was introduced.)

6

7 Q. Now, you see the, should have exhibits in front
8 of you.

9 Looking at Exhibit 942, at some point did you
10 learn that that's a photograph of Robert Quinn?

11 A. Yes.

12 Q. And at some point did you learn that the
13 remains associated with 18, dash, 19568 were those of
14 Robert Quinn?

15 A. Yes.

16 Q. And were Mr. Quinn's remains located inside or
17 outside of the residence?

18 A. Inside.

19 Q. And were the remains of one person or were they
20 comingled with another person?

21 A. It was originally thought to be two people, but
22 ultimately found to be one person.

23 Q. Okay. Did you ever find out why it was thought
24 to be two people?

25 A. It's my understanding that Mr. Quinn's bones
26 reacted differently to the heat of the fire, so some of

1 the bones were bigger, making them believe that it was
2 two people.

3 Q. But ultimately the anthropologist determined
4 that it was just one person?

5 A. Yes.

6 Q. Now, did you also go to a residence at 1865
7 Norwood Drive in Paradise on November 12th?

8 A. Yes.

9 Q. And was that residence destroyed?

10 A. Yes.

11 Q. Were human remains located there?

12 A. Yes.

13 Q. How many remains total were located there?

14 A. Three.

15 Q. And were you responsible for taking the case
16 for all three, or a different number?

17 A. So I was responsible for taking one of the
18 cases.

19 Q. So --

20 A. Go ahead.

21 Q. Were you, for the case that you were
22 responsible for, was that assigned case number 18, dash,
23 19604?

24 A. Yes.

25

26 (Grand Jury Exhibit 943 was introduced.)

1
2 Q. And looking at Exhibit 943, did you at some
3 point learn that that's a photograph of Christina
4 Heffern?

5 A. Yes.

6 Q. And anytime you want to take a break, just let
7 us know.

8 A. Okay.

9 Q. At some point, did you learn that the remains
10 associated with case number 18, dash, 19604 were those of
11 Christina Heffern?

12 A. Yes.

13
14 (Grand Jury Exhibit 944 was introduced.)
15

16 Q. And looking at Exhibit 944, can you tell us
17 what that's a photograph of?

18 A. It's a photograph of the destroyed houses, in
19 particular the bathroom. It was discovered because there
20 was tile and a tub. And those were the remains that were
21 found.

22 Q. Were Ms. Christina Heffern's remains found
23 outside of the tub?

24 A. There were several remains. I'm not quite sure
25 which one she was. But they were all in the bathroom.
26 And I, I'm not sure if she was one in the bathtub or

1 outside of the bathtub.

2 Q. Now, on November 14th did you go to a residence
3 at 5471 South Libby Road, No. 33?

4 A. Yes.

5 Q. And was that residence destroyed?

6 A. Yes.

7 Q. Were human remains located at that residence?

8 A. Yes.

9 Q. And was a case number assigned to those
10 remains?

11 A. Yes.

12 Q. Was that case number 18, dash, 19679?

13 A. Yes.

14

15 (Grand Jury Exhibit 945 was introduced.)

16

17 Q. And looking at Exhibit 945, did you at some
18 point learn that that's a photograph of Ronald Schenk?

19 A. Yes.

20 Q. At some point did you learn that the remains
21 associated with case number 18, dash, 19679 were those of
22 Ronald Schenk?

23 A. Yes.

24

25 (Grand Jury Exhibit 946 was introduced.)

26

1 Q. And looking at Exhibit 946, can you tell us
2 what that's a photograph of?

3 A. It's a photograph of a destroyed residence at
4 the address that you stated, the inside. And there's
5 remains on the floor next to what appears to be a
6 mattress frame, or the springs.

7 Q. And so those are the remains of Mr. Schenk that
8 you located at 5471 South Libby Road, No. 33?

9 A. Yes.

10 Q. On November 15th did you go to a residence at
11 13816 Glover Lane in Magalia?

12 A. Yes.

13 Q. Was that residence destroyed?

14 A. Yes.

15 Q. And were human remains located at that --

16 A. Yes.

17 Q. Were, was a case number assigned to the
18 remains?

19 A. Yes.

20 Q. Was that case number 18, dash, 19699?

21 A. Yes.

22

23 (Grand Jury Exhibit 947 was introduced.)

24

25 Q. And looking at Exhibit 947, did you at some
26 point learn that that's a photograph of John Sedwick?

1 A. Yes.

2 Q. Now, were Mr. Sedwick's remains located inside
3 or outside of his residence?

4 A. Outside.

5 Q. And did you have occasion to speak with
6 Mr. Sedwick on November 8th, 2018?

7 A. Yes.

8 Q. Could you tell us about that.

9 A. I was at the intersection of Coutolenc and
10 Skyway, which is just right down the road from Glover.
11 And he approached in his vehicle, and I spoke with him
12 and told him to leave. And it's my understanding that he
13 returned to his residence.

14 Q. And you're sure that it was Mr. Sedwick?

15 A. Absolutely.

16 Q. Also on November 15th did you go to a residence
17 at 9289 Skyway, No. 15?

18 A. Yes.

19 Q. And was that residence destroyed?

20 A. Yes.

21 Q. Were human remains located at that residence?

22 A. Yes.

23 Q. And was a case number assigned to those
24 remains?

25 A. Yes.

26 Q. Was that case number 18, dash, 19712?

1 A. Yes.

2

3 (Grand Jury Exhibit 948 was introduced.)

4

5 Q. Looking at Exhibit 948, did you at some point
6 learn that that's a photograph of Shirlee Teays?

7 A. Yes.

8 Q. Also at some point did you learn that the
9 remains associated with case number 18, dash, 19712 were
10 those of Shirlee Teays?

11 A. Yes.

12

13 (Grand Jury Exhibit 949 was introduced.)

14

15 Q. And looking at Exhibit 949, can you tell us
16 what that's a photograph of?

17 A. It's a photograph of a destroyed residence at
18 the address that you described. In the corner you can
19 see orange tape which cordoned off the area in which the
20 remains were found.

21

22 (Grand Jury Exhibit 950 was introduced.)

23

24 Q. And then looking at Exhibit 950, can you tell
25 us what that's a photograph of?

26 A. Those were the remains that were found at that

1 address inside of the destroyed residence.

2 Q. On November 19th did you go to an address in
3 Magalia, or a piece of property in Magalia that didn't
4 have an assigned address but was in the vicinity of
5 Athens Way and South Park Drive?

6 A. Yes.

7 Q. Was that residence destroyed?

8 A. Yes.

9 Q. And were human remains located at that
10 residence?

11 A. Yes.

12 Q. Was a case number assigned to those remains?

13 A. Yes.

14 Q. And was that number 18, dash, 19809?

15 A. Yes.

16

17 (Grand Jury Exhibit 951 was introduced.)

18

19 Q. Looking at Exhibit 951, at some point did you
20 learn that that was a photograph of Warren Lessard?

21 A. Yes.

22 Q. At some point did you learn that the remains
23 associated with case number 18, dash, 19809 were those of
24 Warren Lessard?

25 A. Yes.

26

1 (Grand Jury Exhibit 952 was introduced.)

2

3 Q. And looking at Exhibit 952, can you tell us
4 what that's a photograph of?

5 A. It's a photograph of that property at the end
6 of Athens. That, in particular, is a vehicle that was
7 located. If, if you're facing the front of what used to
8 be the property, it was on the left side of what was the
9 structure.

10 Q. Okay. So can you describe a little bit about
11 what that property was like?

12 A. It's my understanding that he was an
13 off-the-grid liver. I don't know if it was a traditional
14 structure because it was reduced to what it was. Maybe a
15 makeshift property, but a structure that he was living
16 in. And so to the right of that vehicle was the main
17 structure with what appeared to be a porch or landing
18 outside of the residence.

19 Q. And where was Mr. Lessard's remains found?

20 A. His remains were found on that porch or landing
21 outside of what was the residence.

22 Q. Okay. And on November 21st did you go to a
23 residence at 1481 Sun Manor, Unit A, in Paradise?

24 A. Yes.

25 Q. And was that residence destroyed?

26 A. Yes.

1 Q. Were human remains located at that residence?

2 A. Yes.

3 Q. And was a case number assigned to these
4 remains?

5 A. Yes.

6 Q. Was that case number 18, dash, 19868?

7 A. Yes.

8

9 (Grand Jury Exhibit 953 was introduced.)

10

11 Q. And looking at Exhibit 953, did you at some
12 point learn that that is a photograph of David Marbury?

13 A. Yes.

14 Q. And at some point did you learn that the
15 remains associated with case number 18, dash, 19868 were
16 those of David Marbury?

17 A. Yes.

18

19 (Grand Jury Exhibit 954 was introduced.)

20

21 Q. And looking at Exhibit 954, can you tell us
22 what that's a photograph of?

23 A. It's a photograph of the destroyed residence at
24 the address on Sun Manor.

25

26 (Grand Jury Exhibit 955 was introduced.)

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Q. And looking at Exhibit 955, can you tell us what that's a photograph of?

A. Those are the remains that were located, human remains, that were located on Sun Manor, at the residence.

Q. And is that inside or outside of the residence?

A. I was lucky enough to be able to look at a structure that was in the area that was the same build. It was a duplex. And based on the layout of the remaining homes that were still standing, it appeared as though it was inside of the residence. And there was a car just above, in 955, where the remains were found and appliances around him. And so, to the best of our knowledge, he was inside.

Q. And on November 24th did you go to a residence at 13747 Andover Drive in Magalia?

A. Yes.

Q. Was that residence destroyed?

A. Yes.

Q. And were human remains located at that residence?

A. Yes.

Q. Was a case number assigned?

A. Yes.

Q. And was that case number 18, dash, 19947?

1 A. Yes.

2

3 (Grand Jury Exhibit 956 was introduced.)

4

5 Q. Now, at some point -- looking at Exhibit 956 --
6 at some point, did you learn that that is a photograph of
7 Jean Forsman?

8 A. Yes.

9 Q. And at some point did you also learn that the
10 remains associated with case number 18, dash, 19947 were
11 those of Jean Forsman?

12 A. Yes.

13

14 (Grand Jury Exhibit 957 was introduced.)

15

16 Q. And looking at Exhibit 957, can you tell us
17 what that's a photograph of?

18 A. It's a photograph of the destroyed residence on
19 Andover, where the remains were located.

20

21 (Grand Jury Exhibit 958 was introduced.)

22

23 Q. And looking at Exhibit 958, can you tell us
24 what that's a photograph of?

25 A. It's a photograph of what used to be the
26 structure. Inside of the structure, human remains were

1 located in the top right corner of the photograph.

2 MS. DUPRE-TOKOS: Nothing further.

3 Does anyone have any questions?

4 You just need to get an admonition from Madam
5 Foreperson.

6 THE WITNESS: Okay.

7 GRAND JURY FOREPERSON: Deputy Raggio, you are
8 admonished not to discuss or disclose at any time outside
9 of this jury room the questions that have been asked of
10 you or your answers until authorized by this Grand Jury
11 or the Court. A violation of these instructions on your
12 part may be the basis for a charge against you of
13 contempt of court. This does not preclude you from
14 discussing your legal rights with your own attorney.

15 Deputy Raggio, what I have just said is a
16 warning not to discuss this case with anyone except the
17 Court, your lawyer, or the district attorney. Do you
18 have any questions?

19 THE WITNESS: I do not.

20 GRAND JURY FOREPERSON: Thank you for your
21 time.

22 THE WITNESS: Thank you.

23 MR. NOEL: I know we've only been going for 45
24 minutes. Take a break.

25 Madam Foreperson?

26 GRAND JURY FOREPERSON: Fifteen minutes.

1 MR. NOEL: Fifteen minutes. Stretch, get some
2 air.

3 (Break taken.)

4 GRAND JURY FOREPERSON: All members of the
5 Grand Jury are back from the break, so we can proceed.

6 Deputy Townsend, if you'd raise your right hand
7 to be sworn, please.

8
9 DEPUTY BRANDON TOWNSEND
10 having been called as a witness in
11 the matter now pending, having been first
12 duly sworn, testifies as follows:

13
14 THE WITNESS: I do.

15 GRAND JURY FOREPERSON: Thank you. Have a
16 seat, please.

17
18 EXAMINATION

19
20 BY MS. DUPRE-TOKOS

21 Q. Good morning.

22 A. Good morning.

23 Q. Could you state and spell your name for the
24 record for us.

25 A. It's Brandon Townsend. B-R-A-N-D-O-N, last
26 T-O-W-N-S-E-N-D.

1 MS. DUPRE-TOKOS: Can everyone hear him okay or
2 should he put the mic closer?

3 GRAND JUROR: Pull a little closer.

4 MS. DUPRE-TOKOS: You can pull it. You don't
5 have to lean.

6 Q. (By MS. DUPRE-TOKOS) Could you tell us where
7 you're employed and in what capacity.

8 A. Currently employed at the Butte County
9 Sheriff's Office as deputy sheriff.

10 Q. How long have you been a sworn law enforcement
11 officer?

12 A. Deputy sheriff since 2015.

13 Q. Have you had, have you had other positions
14 within the Butte County Sheriff's Office other than
15 deputy? Have you been a detective or anything like that
16 yet?

17 A. No, ma'am. Deputy since 2015. I have other
18 duties that I do, but also correctional deputy from 2010
19 to 2015 which shares the office.

20 Q. And do you have any other law enforcement
21 experience?

22 A. I was also a correctional officer for Cornell
23 Corrections in a private capacity in CDC in, here in
24 California for three years.

25 Q. And were you assigned to assist with the Camp
26 Fire?

1 A. I was.

2 Q. In what capacity?

3 A. Several capacities.

4 Q. Were you ever assigned to a team that went
5 looking for victims of the fire?

6 A. I was.

7 Q. And on November 12th were you on one of those
8 teams?

9 A. I was.

10 Q. And did you go to a residence at 6674 Pentz
11 Road, No. 19, in Paradise on that day?

12 A. I did.

13 Q. Was that residence destroyed?

14 A. It was.

15 Q. And were human remains located there?

16 A. There was.

17 Q. Was a case number assigned to those remains?

18 A. It was.

19 Q. And was that case number 18, dash, 19812?

20 A. It was.

21

22 (Grand Jury Exhibit 959 was introduced.)

23

24 Q. Now, looking at Exhibit 959, which should be in
25 front of you and is also up on the screen, did you at
26 some point learn that that's a photograph Dorothy Mack?

1 A. I did.

2 Q. And at some point did you learn that the
3 remains associated with case number 18, dash, 19812 were
4 those of Dorothy Mack?

5 A. I did.

6
7 (Grand Jury Exhibit 960 was introduced.)

8
9 Q. And looking at Exhibit 960, could you tell us
10 what that's a photograph of.

11 A. That was a scene of the residence where the
12 remains were collected, the structure.

13 Q. At 6674 Pentz?

14 A. Yes.

15
16 (Grand Jury Exhibit 961 was introduced.)

17
18 Q. And then looking at Exhibit 961, could you tell
19 us what that's a photograph of.

20 A. That's a photograph of a taped-off area where
21 remains were collected. And part of the remains are
22 visible.

23 Q. Okay. And those would be the remains of
24 Dorothy Mack from 6674 Pentz?

25 A. Yes.

26 Q. And then on November 20th were you also on a

1 team that went looking for victims of the fire?

2 A. I was.

3 Q. Did you go to a residence at 5775 Deanna Way in
4 Paradise?

5 A. I did.

6 Q. Was that residence destroyed?

7 A. It was.

8 Q. And were human remains located there?

9 A. They were.

10 Q. Is the case number assigned to that?

11 A. It was.

12 Q. And was that case number 18, dash, 19836?

13 A. It was.

14

15 (Grand Jury Exhibit 962 was introduced.)

16

17 Q. Looking at Exhibit 962, you see there's no
18 photograph of a person. Do you know why that is?

19 A. I believe there wasn't one located or in the
20 system for that individual that we believed was a match
21 for that residence.

22 Q. Okay. At some point did you learn whether or
23 not the person living at that address had any living
24 relatives?

25 A. I don't recall there being any.

26 Q. You don't recall there being any?

1 A. I don't recall there being any living relatives
2 that we found.

3

4 (Grand Jury Exhibit 963 was introduced.)

5

6 Q. Looking at Exhibit 963, what is that a
7 photograph of?

8 A. It's a photograph of numbers displayed for that
9 house, that address; and the garbage cans associated with
10 that address. Recycle bin.

11

12 (Grand Jury Exhibit 964 was introduced.)

13

14 Q. And Exhibit 964, what is that a photograph of?

15 A. Of the burned, destroyed structure so stated at
16 that address.

17

18 (Grand Jury Exhibit 965 was introduced.)

19

20 Q. And Exhibit 965, can you tell us what that's a
21 photograph of?

22 A. It's the area where the human remains were
23 collected.

24

25 (Grand Jury Exhibit 966 was introduced.)

26

1 Q. And then 966, it's a little hard to see. First
2 of all, what is that? Is that you?

3 A. That's me. That's a picture of my phone. It's
4 an application that I used to pinpoint GPS of the
5 location we were at.

6 Q. Okay. Does this application also sometimes
7 tell you the owner of a property?

8 A. It does. It gives owner address and
9 information.

10 Q. Okay. And right here, is that where it shows
11 the owner? And you can get up if you want.

12 A. Yes, that's the owner.

13 Q. What does it say for the owner?

14 A. I have to get closer.

15 Q. Okay. Go ahead.

16 A. Herbert Alderman.

17 Q. And I don't know if I asked you this, but at
18 some point did you learn that the remains associated with
19 case number 18, dash, 19836 were those of Herbert
20 Alderman?

21 A. Yes.

22

23 (Grand Jury Exhibit 967 was introduced.)

24

25 Q. In looking at Exhibit 967, can you tell us what
26 that's a photograph of.

1 A. That's the mail that I located inside the bin
2 that was associated with the address.

3

4 (Grand Jury Exhibit 968 was introduced.)

5

6 Q. And then what is Exhibit 968, the photograph?

7 A. That's the bin in front of the residence that
8 had the mail in it.

9 Q. You can actually see the mail there?

10 A. Correct. That was the same picture prior
11 shown, but inside the tote where it was located.

12 Q. And I'm going to jump back. In that picture
13 can you see that piece of mail in the blue bin?

14 A. Yes. It's the mail sitting there where the bin
15 opens up.

16 MR. NOEL: And that was 963 you were referring
17 to; right?

18 Q. (By MS. DUPRE-TOKOS) Yes.

19 That was Exhibit 963; correct?

20 A. Correct. Yeah.

21 Q. Thanks.

22 And so with all of that information, did that
23 lead you to believe that Mr. Herbert Alderman lived at
24 that address?

25 A. It did.

26 Q. And that those were his remains?

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A. It did.

Q. And then on November 24th, were you also on a team that went looking for victims of the Camp Fire?

A. I was.

Q. Did you go to a residence at 2376 Clearview Drive in Paradise?

A. I did.

Q. Was that residence destroyed?

A. It was.

Q. And were human remains located there?

A. There was.

Q. Was a case number assigned?

A. There was.

Q. Was that 18, dash, 19949?

A. It was.

(Grand Jury Exhibit 969 was introduced.)

Q. At some point did you learn that the woman in this photograph is Dorothy, or was Dorothy Lee-Herrera?

A. I did.

Q. And at some point did you also learn that the remains associated with case number 18, dash, 19949 were those of Dorothy Lee-Herrera?

A. I did.

1 (Grand Jury Exhibit 970 was introduced.)

2

3 Q. And looking at Exhibit 970, can you tell us
4 what that's a photograph of.

5 A. It's a picture of the destroyed --

6 Q. I'm sorry?

7 A. Picture of the residence, destroyed.

8 Q. At 2376 Clearview?

9 A. Yes.

10

11 (Grand Jury Exhibit 971 was introduced.)

12

13 Q. And then looking at Exhibit 971, can you tell
14 us what that's a photograph of?

15 A. That's the area where the remains were
16 recovered.

17 Q. And are any remains visible in that photograph?

18 A. There are in the tray there.

19 Q. Okay. Can you just point to that very quickly.

20 And that's it, unless anyone has any questions.

21 No?

22 You just need an admonition from Madam
23 Foreperson.

24 GRAND JURY FOREPERSON: Deputy Townsend, you
25 are admonished not to discuss or disclose at any time
26 outside of this jury room the questions that have been

1 asked of you or your answers until authorized by this
2 Grand Jury or the Court. A violation of these
3 instructions on your part may be the basis for a charge
4 against you of contempt of court. This does not preclude
5 you from discussing your legal rights with your own
6 attorney.

7 Deputy Townsend, what I have just said is a
8 warning not to discuss this case with anyone except the
9 Court, your lawyer, or the district attorney. Do you
10 have any questions?

11 THE WITNESS: I do not.

12 GRAND JURY FOREPERSON: Thank you for your time
13 today.

14 THE WITNESS: Thank you.

15 (Pause in proceeding.)

16 GRAND JURY FOREPERSON: Please raise your right
17 hand to be sworn.

18

19 DEPUTY MANUEL AYALA

20 having been called as a witness in
21 the matter now pending, having been first
22 duly sworn, testifies as follows:

23

24 THE WITNESS: I do.

25 GRAND JURY FOREPERSON: Thank you. Have a
26 seat, please.

1
2 EXAMINATION
3

4 BY MS. DUPRE-TOKOS

5 Q. Good morning.

6 A. Good morning.

7 Q. You can move the microphone wherever you need
8 to. It slides. You don't have to lean forward.

9 Could you state and spell your name for the
10 record.

11 A. Manuel Ayala, M-A-N-U-E-L A-Y-A-L-A.

12 Q. Where are you employed and in what capacity?

13 A. I am currently employed by the Butte County
14 Sheriff's Office. I am assigned as a school resource
15 deputy at the time.

16 Q. And how long have you had that assignment?

17 A. I have been a school resource deputy for
18 approximately four months.

19 Q. And prior to that what was your assignment?

20 A. Prior to that my assignment was on patrol.

21 Q. And how long were you in that assignment?

22 A. Approximately a year.

23 Q. How long have you been a sworn law enforcement
24 officer?

25 A. I've been in law enforcement for approximately
26 eight years.

1 Q. And how long have you been with the sheriff's
2 office?

3 A. Sheriff's office I've been with 15 months.

4 Q. Where were you prior to that?

5 A. Prior to that I was with the Paradise Police
6 Department.

7 Q. Okay. And how long were you with Paradise
8 Police Department?

9 A. I was with the Paradise Police Department for
10 about six and a half years.

11 Q. Do you have any law enforcement experience
12 prior to that?

13 A. I do not.

14 Q. Were you assigned to assist with the Camp Fire?

15 A. I was.

16 Q. In what capacity?

17 A. Initially I was assigned with, to the Coroner's
18 Division to go out and assist the anthropologist team.

19 Q. And were you with the coroner's team looking
20 for victims of the Camp Fire on November 11th, 2018?

21 A. I was.

22 Q. Did you go to a residence at 5471 South Libby
23 Road, No. 34, in Paradise on that day?

24 A. I did.

25 Q. Was that residence destroyed?

26 A. It was.

1 Q. And were human remains located at that
2 residence?

3 A. There were.

4 Q. Was a case number assigned to those remains?

5 A. There was.

6 Q. Was that 18, dash, 19538?

7 A. Yes.

8

9 (Grand Jury Exhibit 972 was introduced.)

10

11 Q. And you should have exhibits in front of you.
12 They're also up on the screen.

13 Looking at Exhibit 972, did you at some point
14 learn that that's a photograph of Vincent Carota?

15 A. I did.

16 Q. Did you also at some point learn that the
17 remains associated with case number 18, dash, 19538, were
18 those of Vincent Carota?

19 A. Yes.

20 Q. Were Mr. Carota's remains located inside or
21 outside the residence?

22 A. Inside the residence.

23 Q. And there's an error on this PowerPoint with
24 "alive prior" checked, so we'll get you all a replacement
25 page.

26 On November 14th were you, again, on a team

1 looking for victims of the fire?

2 A. I was.

3 Q. And did you go to a residence at 8030 Skyway,
4 Unit A, in Paradise?

5 A. I did.

6 Q. Was that residence destroyed?

7 A. Yes.

8 Q. Were human remains located there?

9 A. Yes.

10 Q. And was a case number assigned to those
11 remains?

12 A. There was.

13 Q. Was that case number 18, dash, 19551?

14 A. That's correct.

15

16 (Grand Jury Exhibit 973 was introduced.)

17

18 Q. And looking at Exhibit 973, looks like we've
19 got a typo. There is a "6" on the end of that.

20 Did you at some point learn that that's a
21 photograph of Andrew Downer?

22 A. Yes.

23 Q. Did you also at some point learn that the
24 remains associated with case number 18, dash, 19551 were
25 those of Andrew Downer?

26 A. Yes.

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(Grand Jury Exhibit 974 was introduced.)

Q. And looking at Exhibit 974, can you tell us what that's a photograph of?

A. That is a photograph of Mr. Downer's residence.

Q. And the remains of it?

A. And the remains of it, yes.

(Grand Jury Exhibit 975 was introduced.)

Q. And looking at Exhibit 975, can you tell us what that's a photograph of?

A. That is a photograph of human remains.

Q. And were those ones located at 8030 Skyway, Unit A?

A. Correct.

Q. So they were the remains of Mr. Downer?

A. Yes.

Q. And were Mr. Downer's remains located inside or outside?

A. Outside.

Q. Also, back on November 11th, 2018, did you go to a residence at 5436 Clark Road, No. 14, in Paradise to look for a victim of the fire?

A. I did.

1 Q. Was that residence destroyed?
2 A. It was.
3 Q. Were remains located there?
4 A. Yes.
5 Q. And was a case number assigned to those
6 remains?
7 A. Yes.
8 Q. Is that case number 18, dash, 19562?
9 A. Yes.
10
11 (Grand Jury Exhibit 976 was introduced.)
12
13 Q. And looking at Exhibit 976, did you at some
14 point learn that that's a photograph of Gerald Rodrigues?
15 A. Yes.
16 Q. And at some point did you also learn that the
17 remains associated with case number 18, dash, 19562 were
18 those of Gerald Rodrigues?
19 A. Yes.
20 Q. Was Mr. Rodrigues located inside or outside of
21 the residence?
22 A. Inside.
23 Q. On November 13th, 2018, did you go to a
24 residence at 5081 Wilderness Way in Paradise?
25 A. I did.
26 Q. And was that residence destroyed?

1 A. It was.

2 Q. And were human remains located at that
3 residence?

4 A. Yes.

5 Q. Was a case number assigned to those remains?

6 A. Yes.

7 Q. And was that case number 18, dash, 19647?

8 A. Yes.

9

10 (Grand Jury Exhibit 977 was introduced.)

11

12 Q. Looking at Exhibit 977, did you at some point
13 learn that that's a photograph of Dennis Hanco?

14 A. Yes.

15 Q. And at some point did you also learn that the
16 remains associated with case number 18, dash, 19647 were
17 those of Dennis Hanco?

18 A. Yes.

19

20 (Grand Jury Exhibit 978 was introduced.)

21

22 Q. And looking at Exhibit 978, can you tell us
23 what those, that's a photograph of?

24 A. That is a photograph of Mr. Hanco's residence.

25 Q. And that's the one at 5081 Wilderness Way?

26 A. Correct.

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(Grand Jury Exhibit 979 was introduced.)

Q. In looking at 979, can you tell us what that's
a photograph of?
A. Mr. Hanko's remains.
Q. Did you go to a residence at 5393 Sawmill Road,
No. 27, in Paradise?
A. I did.
Q. Was that residence destroyed?
A. It was.
Q. And were human remains located there?
A. Yes.
Q. And were they assigned a case number?
A. Yes.
Q. Was that case number 18, dash, 19680?
A. Yes.

(Grand Jury Exhibit 980 was introduced.)

Q. Looking at Exhibit 980, at some point did you
learn that that's a photograph of Elizabeth Gaal?
A. Yes.
Q. And at some point did you also learn that the
remains associated with case number 18, dash, 19680 were
those of Elizabeth Gaal?

1 A. Yes.

2

3 (Grand Jury Exhibit 981 was introduced.)

4

5 Q. Looking at Exhibit 981, can you tell us what
6 that's a photograph of.

7 A. That is a photograph of Ms. Gaal's residence
8 which was destroyed.

9 Q. And so that's the one at 5393 Sawmill Road?

10 A. Correct.

11

12 (Grand Jury Exhibit 982 was introduced.)

13

14 Q. And looking at Exhibit 982, can you tell us
15 what that's a photograph of.

16 A. Those are Ms. Gaal's remains.

17 Q. On November 16th, 2018, did you go to a
18 residence at 1040 Buschmann Road in Paradise?

19 A. I did.

20 Q. Was that residence destroyed?

21 A. Yes.

22 Q. And were human remains located there?

23 A. Yes.

24 Q. Was a case number assigned to those remains?

25 A. There was.

26 Q. And was that case number 18, dash, 19732?

1 A. Correct.

2

3 (Grand Jury Exhibit 983 was introduced.)

4

5 Q. Looking at Exhibit 983, did you at some point
6 learn that this is a photograph of Christopher Maltby?

7 A. Yes.

8 Q. And did you also learn that at some point -- or
9 at some point did you learn that the remains associated
10 with case number 18, dash, 19732 were those of
11 Christopher Maltby?

12 A. Yes.

13

14 (Grand Jury Exhibit 984 was introduced.)

15

16 Q. And looking at Exhibit 984, can you tell us
17 what that's a photograph of.

18 A. That is a photograph of Mr. Maltby's residence.

19 Q. At 1040 Buschmann?

20 A. Correct.

21

22 (Grand Jury Exhibit 985 was introduced.)

23

24 Q. Then looking at Exhibit 985, can you tell us
25 what that's a photograph of.

26 A. That is a photograph of a prosthetic that we

1 located.

2 Q. Okay. When you say "a prosthetic," what do you
3 mean? Implant in the body?

4 A. Implant in the body, yes.

5 Q. Okay. And are there any human remains in that
6 picture as well?

7 A. I believe there are to the right of the metal
8 gusset.

9 Q. Okay. And those are -- is it my understanding
10 then that those -- is my understanding correct that those
11 are the remains of Mr. Maltby that you located at 1040
12 Buschmann?

13 A. Yes.

14 MS. DUPRE-TOKOS: Does anyone have any
15 questions?

16 That's it. You just have an admonition from
17 Madam Foreperson.

18 GRAND JURY FOREPERSON: Deputy Ayala, you are
19 admonished not to discuss or disclose at any time outside
20 of this jury room the questions that have been asked of
21 you or your answers until authorized by this Grand Jury
22 or the Court. A violation of these instructions on your
23 part may be the basis for a charge against you of
24 contempt of court. This does not preclude you from
25 discussing your legal rights with your own attorney.

26 Deputy Ayala, what I have just said is a

1 warning not to discuss this case with anyone except the
2 Court, your lawyer, or the district attorney. Do you
3 have any questions?

4 THE WITNESS: Not at all.

5 THE COURT: Thank you for your time today.

6 THE WITNESS: Thank you.

7 [DISCUSSION OMITTED.]

8 (Lunch break taken.)

9 [ROLL CALL OMITTED.]

10 MS. DUPRE-TOKOS: We all set?

11 GRAND JURY FOREPERSON: We are ready.

12 Mr. Curtis, before you have a seat, would you
13 please raise your right hand to be sworn.

14

15 SCOTT CURTIS

16 having been called as a witness in
17 the matter now pending, having been first
18 duly sworn, testifies as follows:

19

20 THE WITNESS: I do.

21 GRAND JURY FOREPERSON: Thank you. Have a
22 seat, please.

23

24 EXAMINATION

25

26 BY MS. DUPRE-TOKOS

1 Q. Good afternoon.

2 A. Good afternoon.

3 Q. Could you please state and spell your name for
4 the record.

5 A. Sure. Scott Curtis, S-C-O-T-T C-U-R-T-I-S.

6 Q. And where are you employed and in what
7 capacity?

8 A. I'm employed with the Tehama County District
9 Attorney's Bureau of Investigations as a DA investigator.

10 Q. How long have you been with the Tehama County
11 DA's office?

12 A. Little over three years.

13 Q. Where were you prior to that?

14 A. Red Bluff Police Department.

15 Q. How long were you there?

16 A. I started there in 2000, was there until 2004,
17 left and started my own investigations business. Did
18 that for eight years. Returned to Red Bluff in 2011 and
19 worked there until I came over to the DA's office.

20 Q. Did you have any law enforcement experience
21 prior to Red Bluff Police Department?

22 A. I worked for the Tehama County Probation
23 Department for five years.

24 Q. So all total how long have you been a sworn law
25 enforcement officer?

26 A. Including the probation time, about 18 years.

1 Q. Now, did you come down and assist with the Camp
2 Fire?

3 A. I did.

4 Q. In what capacity?

5 A. I was assigned to a team that went into locate
6 and recover victims from the fire.

7 Q. Were you on a team that was recovering victims
8 from the fire on November 9th, 2018?

9 A. Yes.

10 Q. Did you go to a residence at 102 Magnolia Drive
11 in Paradise on that day?

12 A. Yes.

13 Q. Was that residence destroyed?

14 A. Yes.

15 Q. And were human remains located at that
16 residence?

17 A. Yes, they were.

18 Q. Was the case number assigned to the remains?

19 A. It was.

20 Q. And was that 18, dash, 19540?

21 A. Yes.

22

23 (Grand Jury Exhibit 986 was introduced.)

24

25 Q. Now, showing you Exhibit 986, that should be in
26 front of you and it's also on the screen next to you.

1 At some point did you learn that that's a
2 photograph of Vernice Regan?

3 A. Yes.

4 Q. Did you also, at some point also learn that the
5 remains associated with case number 18, dash, 19540 were
6 those of Vernice Regan?

7 A. Yes.

8 Q. Where were Ms. Regan's remains located?

9 A. Outside by her garage. Or by the garage of the
10 residence.

11 Q. Now, on November 10th did you go to a single
12 vehicle, I think, traffic collision in the area of
13 Hoffman Road and Jordan Hill Road in Concow?

14 A. Yes.

15 Q. And what kind of vehicle was involved?

16 A. It was a minivan.

17 Q. Was that minivan burned?

18 A. Yes.

19 Q. And did you locate any human remains in the
20 van?

21 A. Yes.

22 Q. Was the case number assigned to those remains?

23 A. Yes, it was.

24 Q. And was that case number 18, dash, 19541?

25 A. Yes.

26

1 (Grand Jury Exhibit 987 was introduced.)

2

3 Q. And looking at Exhibit 987, did you at some
4 point learn that that is a photograph of David Young?

5 A. Yes.

6 Q. Did you also at some point learn that the
7 remains associated with the case number 18, dash, 19541
8 were those of David Young?

9 A. Yes.

10

11 (Grand Jury Exhibit 988 was introduced.)

12

13 Q. And I'm showing you Exhibit 988, can you tell
14 us what that's a picture of?

15 A. That's the van that we located in that area.
16 It was burned, and it appeared to have crashed into the,
17 a large tree. It's off the road.

18 Q. Okay. But looking at the picture, doesn't look
19 like it's very far off the road, is it?

20 A. No. You can see the vehicles parked on the
21 road. That's the roadway. And the person that's
22 standing looks like they're standing on the roadway.

23

24 (Grand Jury Exhibit 989 was introduced.)

25

26 Q. Then Exhibit 989, can you tell us what that's a

1 photograph of?

2 A. That's a photograph of the remains we located
3 in the back kind of the third row seat area of the van.

4 Q. Now, also on November 10th did you go to a
5 residence at 5580 Angel Drive in Paradise?

6 A. Yes.

7 Q. Was that residence destroyed?

8 A. Yes.

9 Q. And were any human remains located at that
10 residence?

11 A. Yes.

12 Q. And were, was a case number assigned?

13 A. Yes, there was.

14 Q. Was that 18, dash, 19543?

15 A. Yes.

16

17 (Grand Jury Exhibit 990 was introduced.)

18

19 Q. And in looking at Exhibit 990, did you at some
20 point learn that that is a photograph of Joseph Rabetoy?

21 A. Yes.

22 Q. And did you also at some point learn that the
23 remains associated with the case number 18, dash, 19543
24 were those of Joseph Rabetoy?

25 A. Yes.

26

1 (Grand Jury Exhibit 991 was introduced.)

2

3 Q. And then looking at Exhibit 991, can you tell
4 us what that's a photograph of.

5 A. The remains of the residence that burned down.

6 Q. And that's the one at 5, 5580 Angel Drive?

7 A. Correct.

8

9 (Grand Jury Exhibit 992 was introduced.)

10

11 Q. And then looking at Exhibit 992, could you tell
12 us what that's a photograph of.

13 A. It's a closer picture of that same residence.
14 And there's human remains inside the residence.

15 Q. Also on November 10th did you go to a residence
16 at 51523 Pentz Road?

17 A. Yes.

18 Q. And was that residence destroyed?

19 A. Yes.

20 Q. And did -- or were any human remains located
21 there?

22 A. Yes.

23 Q. How many sets?

24 A. Two sets at that location.

25 Q. Okay. And were case numbers assigned to both
26 of those remains?

1 A. Yes.

2 Q. Were those case numbers 18, dash, 19544 and
3 19545?

4 A. Yes.

5

6 (Grand Jury Exhibit 993 was introduced.)

7

8 Q. And then looking at Exhibit 993, did you at
9 some point learn that that's a photograph of Paula Dodge?

10 A. Yes.

11

12 (Grand Jury Exhibit 994 was introduced.)

13

14 Q. And Exhibit 994, at some point did you learn
15 that that's a photograph of Randall Dodge?

16 A. Yes.

17

18 Q. At some point did you learn that the remains
19 associated with case number 18, dash, 19544 were those of
Paula Dodge?

20 A. Yes.

21 Q. And the remains associated with 19545 were
22 those of Randall Dodge?

23 A. Yes.

24

25 (Grand Jury Exhibit 995 was introduced.)

26

1 Q. Looking at Exhibit 995, can you tell us what
2 that's a photograph of.

3 A. The two cars that were in the driveway of that
4 residence. And I believe we located the remains in
5 between the cars.

6 Q. Okay. Are you able to show us in that picture
7 where the remains were located?

8 A. I believe --

9 Q. And you can stand up.

10 A. Okay. I believe it was in this -- from memory,
11 this dark area. It's not, not what you would expect to
12 see.

13 Q. So both, that would be both of their remains?

14 A. The charred area, yes.

15 Q. Now, on, again, on November 10th, did you go to
16 6884 Pentz Road in Paradise?

17 A. Yes.

18 Q. And was that residence destroyed?

19 A. Yes.

20 Q. Were any human remains located there?

21 A. Yes.

22 Q. And was a case number assigned?

23 A. Yes.

24 Q. Was that 18, dash, 19546?

25 A. Yes.

26

1 (Grand Jury Exhibit 996 was introduced.)

2

3 Q. And looking at Exhibit 996, at some point did
4 you learn that that was a photograph of Russell Stewart?

5 A. Yes.

6 Q. And also at some point did you learn that the
7 remains associated with case number 18, dash, 19546 were
8 those of Russell Stewart?

9 A. Yes.

10

11 (Grand Jury Exhibit 997 was introduced.)

12

13 Q. And looking at Exhibit 997, can you tell us
14 what that's a photograph of.

15 A. That's a, the remains of Mr. Stewart's
16 residence.

17

18 (Grand Jury Exhibit 998 was introduced.)

19

20 Q. And then Exhibit 998, can you tell us what
21 that's a photograph of.

22 A. It's a close-up picture. It's a picture of the
23 remains of Mr. Stewart. Here.

24 Q. Okay. On November 14th did you go to 2376
25 Clearview Drive in Paradise?

26 A. Yes.

1 Q. And was the house at that address destroyed?

2 A. Yes.

3 Q. And were any human remains located there?

4 A. Yes.

5 Q. And was a case number assigned?

6 A. Yes.

7 Q. Was that 18, dash, 19672?

8 A. Yes.

9

10 (Grand Jury Exhibit 999 was introduced.)

11

12 Q. And looking at Exhibit 999, at some point did
13 you learn that the male in this photograph is Louis
14 Herrera?

15 A. Yes.

16 Q. And at some point did you also learn that the
17 remains associated with case number 18, dash, 19672 were
18 those of Louis Herrera?

19 A. Yes.

20 Q. Now, were Mr. Herrera's remains located inside
21 or outside of the residence?

22 A. I believe inside. Double check.

23 Q. Would it refresh your recollection if you were
24 to refer to your report?

25 A. Yes.

26 Q. Okay. And have you been able to review your

1 report?

2 A. I have.

3 Q. And does that refresh your recollection?

4 A. It did.

5 Q. Were Mr. Herrera's remains located inside or
6 outside of the residence?

7 A. Inside.

8 Q. On November 15th 2018, did you go to an
9 overturned vehicle in the area of Pearson Road and
10 Stearns Road in Paradise?

11 A. Yes.

12 Q. And were you able to locate the vehicle you
13 were looking for?

14 A. Yes.

15 Q. Was it burned?

16 A. Yes.

17 Q. And were any human remains located in that
18 vehicle?

19 A. Yes.

20 Q. Was a case number assigned to those remains?

21 A. Yes.

22 Q. And was that case number 18, dash, 19702?

23 A. Yes.

24

25 (Grand Jury Exhibit 1000 was introduced.)

26

1 Q. And looking at Exhibit 1000, did you at some
2 point learn that this is a photograph of Evva Alexander
3 Holt?

4 A. Yes.

5 Q. And were you able to tell if the vehicle
6 overturned in an accident or if there was some other
7 cause?

8 A. It was undetermined. There were some like
9 bulldozer tracks near it, so we didn't know if it was
10 overturned as a result of an accident or if at some point
11 when the road was being cleared if the car was turned
12 over to get off the road.

13 Q. Now, did you go to a residence at 5783 Waco
14 Lane in Paradise on November 16th, 2018?

15 A. Yes.

16 Q. Was that residence destroyed?

17 A. Yes.

18 Q. And were human remains located there?

19 A. Yes.

20 Q. Was a case number assigned?

21 A. Yes.

22 Q. Was that 18, dash, 19725?

23 A. Yes.

24

25 (Grand Jury Exhibit 1001 was introduced.)

26

1 Q. In looking at Exhibit 1001, did you at some
2 point learn that that's a photograph of Donna Ware?

3 A. Yes.

4 Q. And did you also at some point learn that the
5 remains associated with case number 18, dash, 19725 were
6 those of Donna Ware?

7 A. Yes.

8 Q. Were Ms. Ware's remains located inside or
9 outside the residence?

10 A. Inside.

11 Q. On November 17th, did you go to a residence at
12 5237 Black Olive Drive in Paradise?

13 A. Yes.

14 Q. Was that residence destroyed?

15 A. Yes.

16 Q. And were any human remains located there?

17 A. Yes.

18 Q. I assume a case number was assigned?

19 A. Yes.

20 Q. And was that case number 18, dash, 19755?

21 A. Yes.

22

23 (Grand Jury Exhibit 1002 was introduced.)

24

25 Q. Looking at Exhibit 1002, did you at some point
26 learn that that's a photograph of James Kinner?

1 A. Yes.

2 Q. And did you also at some point learn that the
3 remains associated with case number 18, dash, 19755 were
4 those of James Kinner?

5 A. Yes.

6 Q. Were Mr. Kinner's remains located inside or
7 outside the residence?

8 A. Inside.

9 Q. Then also on November 17th did you go to 1866
10 Stark Lane in Paradise?

11 A. Yes.

12 Q. Was that residence destroyed?

13 A. Yes.

14 Q. And were any human remains located there?

15 A. Yes.

16 Q. Was a case number assigned?

17 A. Yes.

18 Q. And was that case number 18, dash, 19764?

19 A. Yes.

20

21 (Grand Jury Exhibit 1003 was introduced.)

22

23 Q. Looking at Exhibit 1003, at some point did you
24 learn that that's a photograph of Carol Arrington?

25 A. Yes.

26 Q. And did you also at some point learn that the

1 remains associated with case number 18, dash, 19764 were
2 those of Carol Arrington?

3 A. Yes.

4 Q. Were Ms. Arrington's remains located inside or
5 outside of the residence?

6 A. Can I refer to my report to refresh my
7 recollection?

8 Q. If it would refresh your recollection, yes.

9 A. Okay.

10 Q. And did that refresh your recollection?

11 A. It did.

12 Q. Were Ms. Arrington's remains located inside or
13 outside of the residence?

14 A. Inside.

15 Q. On November 21st, 2018, did you go to 14175
16 Citadel Way in Magalia?

17 A. Yes.

18 Q. And was that residence destroyed?

19 A. Yes.

20 Q. Were any remains located there?

21 A. Yes.

22 Q. And was a case number assigned to those
23 remains?

24 A. Yes.

25 Q. Was that 18, dash, 19865?

26 A. Yes.

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(Grand Jury Exhibit 1004 was introduced.)

Q. Looking at Exhibit 1004, did you at some point learn that this is a photograph Berniece Schmidt?

A. Yes.

Q. And did you also learn that at some point that the remains associated with case number 18, dash, 19865 were those of Berniece Schmidt?

A. Yes.

Q. And were Ms. Schmidt's remains located inside or outside of the residence?

A. Inside.

Q. Then on November 24th, 2018, did you go to a residence at 1009 Village Park Way in Paradise?

A. Yes.

Q. And was that residence destroyed?

A. Yes.

Q. Were human remains located there?

A. Yes.

Q. And was a case number assigned to the remains?

A. Yes.

Q. Was that case number 18, dash, 19948?

A. Yes.

(Grand Jury Exhibit 1005 was introduced.)

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Q. In looking at Exhibit 1005, at some point did you learn that that is a photograph Judith Sipher?

A. Yes.

Q. Did you also learn at some point that the remains associated with case number 18, dash, 19948 were those of Judith Sipher?

A. Yes.

Q. And were Ms. Sipher's remains located inside or outside of the residence?

A. I'll need to refer to my report.

Q. Would that refresh your recollection?

A. Yes, ma'am.

Q. Okay. Go ahead.

A. I apologize.

Okay.

Q. Did that refresh your recollection?

A. It did.

Q. Were Ms. Sipher's remains located inside or outside the residence?

A. Inside.

MS. DUPRE-TOKOS: Does anyone have any questions?

You are all set except for an admonition from Madam Foreperson.

GRAND JURY FOREPERSON: Okay. Mr. Curtis, you

1 are admonished not to discuss or disclose at any time
2 outside of this jury room the questions that have been
3 asked of you or your answers until authorized by this
4 Grand Jury or the Court. A violation of these
5 instructions on your part may be the basis for a charge
6 against you of contempt of court. This does not preclude
7 you from discussing your legal rights with your own
8 attorney.

9 Mr. Curtis, what I have just said is a warning
10 not to discuss this case with anyone except the Court,
11 your lawyer, or the district attorney. Do you have any
12 questions?

13 THE WITNESS: No, ma'am.

14 GRAND JURY FOREPERSON: Thank you for your
15 time.

16 THE WITNESS: Thank you.

17
18 (Grand Jury Exhibit 827 was introduced.)
19

20 [DISCUSSION OMITTED.]

21 GRAND JURY FOREPERSON: Yes. We're ready to
22 proceed.

23 We're all here. All members of the Grand Jury
24 are present and ready to proceed.

25 Before you have a seat, would you please raise
26 your right hand to be sworn.

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JENNIFER CELENTANO

having been called as a witness in
the matter now pending, having been first
duly sworn, testifies as follows:

THE WITNESS: I do.

GRAND JURY FOREPERSON: Thank you. Have a
seat, please.

EXAMINATION

BY MS. DUPRE-TOKOS

Q. Good afternoon.

A. Hello.

Q. Could you state your name and spell your last
name for the record.

A. My name is Jennifer Celentano, spelled
C-E-L-E-N-T-A-N-O.

Q. And where are you employed and in what
capacity?

A. I work at the Butte County Sheriff's Office as
a coroner's investigator.

Q. Is that a sworn law enforcement position?

A. It is not.

Q. What is a coroner's investigator?

1 A. As a coroner's investigator, it's my job to
2 investigate the deaths that happen in this county and
3 determine the course of action that we're going to take
4 with each case.

5 Q. What type of things do you do to that end?

6 A. So I read every coroner's report, determine if
7 they need to have an autopsy or further investigation.
8 I'm also the autopsy assistant, so I assist in all the
9 autopsies that occur in our county. And I perform
10 limited autopsies, which means I will go into an external
11 exam of the body and take blood samples for toxicology.

12 Q. And how long have you been doing that?

13 A. I've been doing that for about a year and a
14 half.

15 Q. What did you do prior to being a coroner's
16 investigator at the Butte County Sheriff's Office?

17 A. So just before that I was at the Butte County
18 Sheriff's Office as an investigative assistant in the
19 Investigations Unit. And because of my special skillset,
20 they kind of gave me all of the, most of the coroner's
21 duties.

22 Q. So how long were you an investigative
23 assistant?

24 A. About a year and a half.

25 Q. And did you work with the sheriff's office
26 before that?

1 A. No, I did not.

2 Q. Where did you work before that?

3 A. Before that I was, I worked at Oroville
4 Gymnastics Sports Academy as a child care provider and
5 gymnastics coach.

6 Q. And you said you had a special skillset.

7 A. I do. I went to Chico State and majored in
8 anthropology. I have a bachelor's degree in anthropology
9 with a focus in physical anthropology, which is bones. I
10 spent about -- the entire time I was at Chico State I was
11 an intern in the human identification lab where we would
12 get human remains and -- I'm sorry, this is going to
13 sound terrible -- remove the flesh and put them in the
14 beetle tank, then we could look closely at the bones for
15 trauma, things like that.

16 Q. So you said you did that the whole time you
17 were at Chico State?

18 A. Correct.

19 Q. Did you do anything related to that between
20 Chico State and the coaching gymnastics?

21 A. I did not.

22 Q. Okay. So did you have other jobs in between
23 there, though?

24 A. No. My family was a family-owned business, and
25 we sold it. Once we sold it, I went back to school.

26 Then, as soon as I graduated from school, I began working

1 at the sheriff's office.

2 Q. Okay. So as a coroner's investigator and from
3 what you've described to us your duties were, I assume
4 you were heavily involved in the Camp Fire?

5 A. I was, yeah. I was heavily involved in the
6 Camp Fire. They sent me the remains, also the Camp Fire
7 liaison, which I have contact with pretty much all of the
8 next of kin on all of the cases. I'm also the contact
9 for Sacramento County Coroner's Office for anything
10 regarding any Camp Fire victims.

11 Q. So it would be safe to say that this became
12 pretty personal for you?

13 A. This is very, very personal to me.

14 Q. And you got to know the families?

15 A. I did.

16 Q. And the victims of the, of the fire weren't
17 just names anymore?

18 A. Oh, no.

19 Q. Okay. So this is going to be hard. Anytime
20 you need a break, just ask.

21 A. Okay.

22 Q. If I've asked a question and you haven't
23 answered it yet, though, you have to answer it before you
24 have a break.

25 A. Okay.

26 Q. Okay? But don't hesitate.

1 A. Okay.

2 Q. So were you, did you go out with teams of
3 people, even if it's just one other person, to look for
4 victims of the fire?

5 A. I did.

6 Q. And did you start that on November 8th or
7 November 9th?

8 A. On November 8th.

9 Q. Did you go up to Edgewood Road in Paradise?

10 A. Yes, I did.

11 Q. And was that on November 8th or November 9th?

12 A. November 8th.

13 Q. And when you went up to Edgewood Road on
14 November 8th, did you come across an area that had some
15 things of note?

16 A. Yes. We went down to the end of Edgewood and
17 there were four burned out vehicles.

18 Q. Do you recall what those vehicles were,
19 generally?

20 A. Minivan, two pickup trucks, and a passenger
21 car.

22 Q. So let's start with the van. Was -- you said
23 they were all burned out?

24 A. Yes.

25 Q. So were any human remains found in or near the
26 van?

1 A. Yes. One set of human remains and one set of
2 canine remains.

3 Q. And was a case number assigned to the human
4 remains?

5 A. Yes.

6 Q. Was that case number 18, dash, 19487?

7 A. Yes.

8

9 (Grand Jury Exhibit 1006 was introduced.)

10

11 Q. I'm showing you Exhibit 1006. Do you know who
12 that's a photograph of?

13 A. Yes, that's Andrew Burt.

14 Q. And at some point did you learn that the
15 remains associated with case number 18, dash, 19487 were
16 those of Mr. Andrew Burt?

17 A. Yes.

18 Q. And where were Mr. Burt's remains located?

19 A. Just outside of the minivan, on the passenger
20 side. The dog as well.

21

22 (Grand Jury Exhibit 1007 was introduced.)

23

24 Q. So I'm showing you what's Exhibit 1007. You
25 should have them in front of you, but they're also on the
26 screen. You can look at either one, but there should be

1 a little stack right in front of you.

2 A. Oh, these?

3 Q. Yeah. Okay. Can you tell us what that's a
4 photograph of.

5 A. That is a photograph of the minivan that
6 Mr. Burt was found on the other side.

7

8 (Grand Jury Exhibit 1008 was introduced.)

9

10 Q. And then showing you Exhibit 1008, what is that
11 a photograph of?

12 A. That's Mr. Burt's remains.

13 Q. And then you said there were two pickup trucks?

14 A. Yes.

15 Q. So talking about the first pickup truck, were
16 human remains found in it?

17 A. Yes.

18 Q. And was a case number assigned to those
19 remains?

20 A. Yes.

21 Q. Was that 18, dash, 19488?

22 A. Yes.

23

24 (Grand Jury Exhibit 1009 was introduced.)

25

26 Q. And do you know who the woman is in this

1 photograph?

2 A. Yes. That's Ms. Powers.

3 Q. Is that Beverly Ann Powers?

4 A. Yes.

5 Q. At some point did you learn that the remains
6 associated with case number 18, dash, 19488 were those of
7 Ms. Powers?

8 A. Yes.

9

10 (Grand Jury Exhibit 1010 was introduced.)

11

12 Q. And looking at Exhibit 1010, can you tell us
13 what that's a photograph of.

14 A. It's the photograph of the pickup truck that we
15 found Ms. Powers inside.

16

17 (Grand Jury Exhibit 1011 was introduced.)

18

19 Q. And looking at Exhibit 1011, can you tell us
20 what that's a photograph of.

21 A. Those are some of Ms. Powers' remains.

22 Q. In the pickup truck?

23 A. Yes.

24 Q. And then the second pickup truck, were human
25 remains found in that?

26 A. Yes.

1 Q. And was a case number assigned to those
2 remains?

3 A. Yes.

4 Q. Was that 18, dash, 19489?

5 A. Yes.

6

7 (Grand Jury Exhibit 1012 was introduced.)

8

9 Q. And do you recognize who the picture of the
10 male is?

11 A. Yes. That's Mr. Duvall.

12 Q. And at some point did you learn that the
13 remains associated with 18, dash, 1948 -- I think it's 9,
14 were those of Mr. Duvall?

15 A. Yes.

16

17 (Grand Jury Exhibit 1013 was introduced.)

18

19 Q. And looking at Exhibit 1013, can you tell us
20 what that's a photograph of.

21 A. That's the photograph of the pickup where we
22 found Mr. Duvall.

23

24 (Grand Jury Exhibit 1014 was introduced.)

25

26 Q. And looking at Exhibit 1014, can you tell us

1 what that's a photograph of.

2 A. Those are the remains of Mr. Duvall inside of
3 the pickup truck.

4 Q. Now, you said there was also a car?

5 A. Yes.

6 Q. Do you happen to remember what kind of car?

7 A. I think it was a Focus, a Ford Focus.

8 Q. Okay. It was some sort of --

9 A. Smaller car, yeah.

10 Q. And were any human remains located in the Ford?

11 A. Yes.

12 Q. How many?

13 A. Two.

14 Q. Were case numbers assigned to both of those
15 remains?

16 A. Yes.

17 Q. And were those case numbers 18, dash, 19490 and
18 19491?

19 A. Yes.

20

21 (Grand Jury Exhibit 1015 was introduced.)

22

23 Q. And looking at Exhibit 1015 --

24 A. That's Ms. Porter.

25 Q. Joy Porter?

26 A. Yes.

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(Grand Jury Exhibit 1016 was introduced.)

Q. And then looking at Exhibit 1016?

A. That's her son, Dennis Clark.

Q. Now, at some point did you learn that the remains associated with 18, dash, 19490 were those of Ms. Porter?

A. Yes.

Q. And did you at some point learn that the remains associated with case number 18, dash, 19491 were those of Mr. Clark?

A. Yes.

(Grand Jury Exhibit 1017 was introduced.)

Q. Looking at Exhibit 1017, can you tell us what that's a photograph of.

A. That's a photograph of the cars on Edgewood.

Q. Okay. Is the Ford in that picture?

A. Yes. The first car was the small passenger car with Mr. Clark and his mother, and then the pickup, two pickup trucks behind it.

(Grand Jury Exhibit 1018 was introduced.)

1 Q. And looking at Exhibit 1018, can you tell us
2 what that's a photograph of.

3 A. It's a photograph of remains inside the car.

4 Q. Okay. How are you holding up?

5 A. I'm okay.

6 (Counsel confer.)

7 Q. (By MS. DUPRE-TOKOS) I'm going to back up
8 a second.

9 A. Okay.

10 Q. So there were two pickup trucks in that
11 picture. Just to confirm, are those the two pickup
12 trucks that Mr. Duvall and --

13 A. Ms. Porter.

14 Q. -- Ms. Porter were in?

15 A. Correct.

16 Q. And I was going to say, if you want water, help
17 yourself.

18 A. Thank you.

19 Q. I just need one second.

20 And it was not Ms. Porter, it was Ms. Powers in
21 the pickup truck; correct?

22 A. Can I look at my --

23 Q. Yes, absolutely.

24 A. Yes, I'm sorry, Powers.

25 Q. Now, did you go to Dubarry Lane in Paradise?

26 A. Yes.

1 Q. Do you recall if that was on the 8th or the
2 9th?

3 A. I believe that was on the 9th.

4 Q. Okay. Did you locate any human remains there?

5 A. I did.

6 Q. And was a case number assigned to those
7 remains?

8 A. Yes.

9 Q. Was that 18, dash, 19499?

10 A. Yes.

11

12 (Grand Jury Exhibit 1019 was introduced.)

13

14 Q. And do you recognize this photograph?

15 A. Yes. That's Mr. Bradburd.

16 Q. Okay. David Bradburd?

17 A. Yes.

18 Q. And at some point did you learn that the
19 remains associated with case number 18, dash, 19499 were
20 those of Mr. David Bradburd?

21 A. Yes.

22

23 (Grand Jury Exhibit 1020 was introduced.)

24

25 Q. Showing you Exhibit 1020, can you tell us what
26 that is?

1 A. That's Mr. Bradburd laying there in the middle
2 of the road.

3 Q. On, I believe, November 10th did you go to a
4 residence at a 5236 Edgewood Road?

5 A. Yes.

6 Q. Was that residence destroyed?

7 A. Yes.

8 Q. And were human remains located at that
9 residence?

10 A. Yes.

11 Q. Were the remains inside or outside?

12 A. Outside.

13 Q. Was a case number assigned to those remains?

14 A. Yes.

15 Q. And was that 18, dash, 19524?

16 A. Yes.

17

18 (Grand Jury Exhibit 1021 was introduced.)

19

20 Q. Looking at Exhibit 1021, do you recognize that
21 photograph?

22 A. Yes. That's Mr. Foss.

23 Q. Ernest Foss?

24 A. Yes.

25 Q. At some point did you learn that the remains
26 associated with case number 18, dash, 19524 were those of

1 Mr. Ernest Foss?

2 A. Yes.

3

4 (Grand Jury Exhibit 1022 was introduced.)

5

6 Q. Showing you Exhibit 1022, can you tell us what,
7 what that's a photograph of?

8 A. That is Mr. Foss, covered by a blanket.

9 Q. Now, somewhere on, I believe, November 9th did
10 you go to a residence at 3831 Camelot Lane in Concow?

11 A. Yes.

12 Q. And was that residence destroyed?

13 A. Yes.

14 Q. Were human remains located at that residence?

15 A. Yes.

16 Q. Was a case number assigned to those remains?

17 A. Yes.

18 Q. Was that number 18, dash, 19531?

19 A. Yes.

20

21 (Grand Jury Exhibit 1023 was introduced.)

22

23 Q. Looking at Exhibit 1023, do you recognize that
24 photograph?

25 A. Yes.

26 Q. What is that of?

1 A. That is Mr. Godbout.

2 Q. At some point --

3 MR. NOEL: Want to take a quick break?

4 THE WITNESS: No, I'm okay.

5 MR. NOEL: Sure?

6 THE WITNESS: Yeah.

7 Q. (By MS. DUPRE-TOKOS) At some point did you

8 learn that the remains associated with case number 18,

9 dash, 19531 were those of Mr. Godbout?

10 A. Yes.

11

12 (Grand Jury Exhibit 1024 was introduced.)

13

14 Q. Showing you Exhibit 1024, can you tell us what

15 that's a photograph of.

16 A. That's a photograph of Mr. Godbout's house.

17

18 (Grand Jury Exhibit 1025 was introduced.)

19

20 Q. And Exhibit 1025, what is that of?

21 A. That is Mr. Godbout's remains.

22 Q. Did you go to 5900 Canyon View Drive?

23 A. Yes.

24 Q. Was that in Paradise?

25 A. Yes.

26 Q. Was that around November 12th?

1 A. I'm sorry?

2 Q. Was that around November 12th?

3 A. Yes.

4 Q. Was that residence destroyed?

5 A. It was.

6 Q. And were human remains located there?

7 A. Yes.

8 Q. Was a case number assigned?

9 A. Yes.

10 Q. Is that case number 18, dash, 19599?

11 A. Yes.

12

13 (Grand Jury Exhibit 1026 was introduced.)

14

15 Q. Showing you Exhibits 1026, do you recognize

16 that?

17 A. Yes. That's Mr. Julian Binstock.

18 Q. At some point did you learn that the remains

19 associated with case number 18, dash, 19599 were those of

20 Julian Binstock?

21 A. Yes.

22 MR. NOEL: Let's take a break.

23 Thank you.

24 For the record, one of the jurors asked to take

25 a break.

26 (Break taken.)

1 GRAND JURY FOREPERSON: All members of the
2 Grand Jury have returned from their break, and we're
3 ready to proceed.

4 Q. (By MS. DUPRE-TOKOS) So, Investigator
5 Celentano, this one's particularly difficult, isn't it?

6 A. Yes.

7 Q. Why is that?

8 A. I became very close to Mr. Binstock's family,
9 and he had been touched, and he told me lots of wonderful
10 things about Mr. Binstock. I found him with his dog when
11 -- looked like he was trying to hide in the shower. I
12 just remember -- I apologize -- I remember the story
13 about the dog and his senior community, and they were
14 known as "Jack and the Binstock." And I just -- this
15 one's really hard for me.

16 Q. And Mr. Binstock was very accomplished, wasn't
17 he?

18 A. Yes, he was. He won an Emmy, he spoke eight
19 languages, traveled all over world. Very interesting.
20 Every year won the award for the funniest resident at his
21 senior facility.

22 Q. Thank you for sharing that.

23 A. You're welcome.

24 Q. And I think I asked this, but I'm not sure, so
25 I'm going to ask it again.

26 A. Okay.

1 Q. A some point did you learn that the remains
2 associated with case number 18, dash, 19599 were those of
3 Mr. Binstock?

4 A. Yes.

5
6 (Grand Jury Exhibit 1027 was introduced.)

7
8 Q. I'm going to show you Exhibit 1027.

9 A. That's Mr. Binstock's house.

10 Q. Is that 5900 Canyon View Drive?

11 A. Yes.

12
13 (Grand Jury Exhibit 1028 was introduced.)

14
15 Q. And 1028?

16 A. That's Mr. Binstock's remains.

17 Q. Now, did you go to a residence at 5908 Del Mar
18 Avenue in Paradise on or about November 12th?

19 A. Yes.

20 Q. And was that residence destroyed?

21 A. Yes.

22 Q. Were human remains located at that residence?

23 A. Yes.

24 Q. And was a case number assigned to those
25 remains?

26 A. Yes.

1 Q. Was that number 18, dash, 19627?

2 A. Yes.

3

4 (Grand Jury Exhibit 1029 was introduced.)

5

6 Q. I'm showing you Exhibit 1029. Do you recognize
7 that picture?

8 A. Yes, that's -- well, her family called her
9 Kimber. So that's Kimber Wehr.

10 Q. And at some point did you learn that the
11 remains associated with case number 18, dash, 19627 were
12 those of Kimber Wehr?

13 A. Yes.

14 Q. Is her real name Kimberly?

15 A. I believe so, Kimberly.

16

17 (Grand Jury Exhibit 1030 was introduced.)

18

19 Q. And Exhibit 1030, can you tell us what that is?

20 A. That is her home.

21 Q. That's 5908 Del Mar Avenue?

22 A. Yes.

23

24 (Grand Jury Exhibit 1031 was introduced.)

25

26 Q. And I'm showing you Exhibit 1031, could you

1 tell us --

2 A. In the center of that picture there's a dark
3 spot that is Ms. Wehr's remains.

4 Q. Are there any human remains that have not been
5 identified yet?

6 A. Yes.

7 Q. Where were they located?

8 A. They were located at 4220 Schwyhart in Concow.

9 Q. Were they located on their own?

10 A. No. They were located comingled with Ellen
11 Walker.

12 Q. What does "comingled" mean?

13 A. Comingled means that they were just found
14 together in the same proximity. So when we originally
15 recovered Ms. Walker and sent her to the Sacramento
16 County Coroner's Office, the anthropologist began to look
17 through the remains and discovered that there were two
18 individuals, not just one.

19 Q. And so that person has not yet been identified?

20 A. Correct.

21 Q. All right. Are we still trying?

22 A. Yes. So the ANDE Rapid DNA Company that
23 identified many of the Camp Fire victims is still
24 attempting to identify the John Doe.

25 (Counsel confer.)

26 Q. (By MS. DUPRE-TOKOS) So you mentioned the ANDE

1 Rapid DNA?

2 A. Uh-huh.

3 Q. Can you tell us a little bit about how that
4 came into play with this.

5 A. So I think it was the third or fourth day of
6 the fire, we were contacted by ANDE Rapid DNA. The
7 sheriff spoke with them. And they said that they could
8 identify people quickly with their new technology. The
9 sheriff said, "You better be able to." And so they came
10 up and they put a machine in Sacramento and then also a
11 machine in Chico. So the machine in Chico would, they
12 would collect buccal swabs, which is a cheek swab, of the
13 family members and they would analyze them here in this
14 machine. And in Sacramento they would collect samples
15 from the remains and run them through the machine down
16 there. Then they would compare the results and they
17 would be able to identify people. We identified about 30
18 people using that method in one month.

19 Q. How long would it normally have taken with
20 traditional DNA?

21 A. It would have taken about a year, one to two
22 years, for us to get any response back from DOJ -- DOJ.

23 Q. And that's the Department of Justice?

24 A. Yes.

25 Q. That's a pretty huge difference?

26 A. Yes. Pretty remarkable.

1 Q. And the results are reliable?

2 A. Yes.

3 Q. I assumed that that was checked before --

4 A. Yes. They're actually accredited with the FBI.
5 So, yeah, it's -- it was pretty amazing. Then they've
6 never done anything like that. But, yeah, just -- we
7 still would have unidentified people today had we not
8 used that technology.

9 MS. DUPRE-TOKOS: Does anyone have any
10 questions?

11 No.

12 Then you're done except for an admonition from
13 Madam Foreperson.

14 THE WITNESS: Okay.

15 GRAND JURY FOREPERSON: Investigator Celentano,
16 you are admonished not to discuss or disclose at any time
17 outside of this jury room the questions that have been
18 asked of you or your answers until authorized by this
19 Grand Jury or the Court. A violation of these
20 instructions on your part may be the basis for a charge
21 against you of contempt of court. This does not preclude
22 you from discussing your legal rights with your own
23 attorney.

24 Investigator Celentano, what I have just said
25 is a warning not to discuss this case with anyone except
26 the Court, your lawyer, or the district attorney. Do you

1 have any questions?

2 THE WITNESS: No.

3 GRAND JURY FOREPERSON: Thank you for your
4 time.

5 THE WITNESS: Thank you.

6 MR. NOEL: Hold on, something did come up we
7 forgot to ask you about. It was a question from one of
8 the jurors earlier with regard to the evidence --

9 THE WITNESS: Okay.

10 MR. NOEL: -- and the fact that --

11 MS. DUPRE-TOKOS: You may or may not know the
12 answer.

13 MR. NOEL: Right. That some of the bodies were
14 completely burned and were nothing but cremains. With
15 your background in anthropology -- and did you study
16 under Dr. Turhon Murad?

17 THE WITNESS: I did not.

18 MR. NOEL: Was he already retired when you went
19 through?

20 THE WITNESS: He was.

21 MR. NOEL: Okay. Who was your professor at
22 Chico State?

23 THE WITNESS: Dr. P. Willey, Dr. Eric
24 Bartelink, and Dr. Colleen Milligan.

25 MR. NOEL: And did you do any studies on the
26 application of heat to the human body and the amount of

1 heat that it takes to break down a body?

2 THE WITNESS: I did not myself, no.

3 MR. NOEL: Okay.

4 MS. DUPRE-TOKOS: Did you study --

5 THE WITNESS: I did.

6 MS. DUPRE-TOKOS: Basically did you learn that

7 information?

8 THE WITNESS: Yes. Yes.

9 MS. DUPRE-TOKOS: Do you happen to recall any

10 of that?

11 THE WITNESS: Well, you said some of them were

12 cremains. None of them were cremains. There was some

13 sort of tissue on all of them, bone, and that's, that's

14 why the DNA was so quick, because we were able to find

15 viable pieces of tissue that we could use. But none of

16 them were cremains.

17 MS. DUPRE-TOKOS: So for the -- and you saw

18 most of the remains --

19 THE WITNESS: I did.

20 MS. DUPRE-TOKOS: -- either in person or

21 photographs. Do you know about how hot that fire had to

22 have been to put the bodies in the condition that, that

23 we've seen?

24 THE WITNESS: I don't know the exact

25 temperature, no. But approaching cremation temperatures,

26 because the, most of the bones, especially in the

1 vehicles, were calcified, which means they were white and
2 brittle. I was picking them up, and they were just
3 crumbling to dust. So hot enough it was close to
4 cremation temperature, but there was still viable pieces
5 of tissue left.

6 MS. DUPRE-TOKOS: Do you know what, happen to
7 know what cremation temperature is?

8 THE WITNESS: I don't.

9 MS. DUPRE-TOKOS: I just didn't know if you
10 knew off the top of your head.

11 THE WITNESS: No, I'm sorry.

12 MR. NOEL: Does that answer your question that
13 came up earlier?

14 GRAND JUROR: That's fine. Thank you.

15 MS. DUPRE-TOKOS: Any other questions?

16 Okay. Then you're all set.

17 [DISCUSSION OMITTED.]

18

19 (Grand Jury Exhibits 935-1031 admitted into evidence.)

20

21 [DISCUSSION OMITTED.]

22 --oOo--

23

24

25

26

COURT REPORTER'S CERTIFICATE


This is to certify that I, JENNIFER L. HUNT, CSR, a Certified Shorthand Reporter of the State of California, was present at the time and place the foregoing proceedings were had and taken in the within matter; that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings and afterwards caused my said shorthand writing to be transcribed into typewriting. Further, pursuant to CCP237 all reference to jurors by name has been redacted.

The foregoing pages beginning at:

1 through 90

are certified to be a complete transcription of said stenographic shorthand notes.

DATED: THIS 6TH day of JUNE 2022



JENNIFER L. HUNT, CSR 10735
OFFICIAL REPORTER

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APPEARANCES:

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INDEX OF GRAND JURY EXHIBITS.

EXHIBIT	DESCRIPTION	IDENTIFIED	MARKED	ADMITTED
1049	Photo of Isabel Webb	20		--
1050	Photo of remains at 1449 Sleepy Hollow, Paradise	21		--
1051	Photo of remains of Isabel Webb	21		--
1052	Photo of Sleepy Hollow street sign	21		--
1053	Photo of mail for Isabel Webb	22		--
1054	Photo of Jesus Fernandez	12		--

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OROVILLE, BUTTE COUNTY, CALIFORNIA

JANUARY 24, 2020; 8:30 a.m.

(Confidential Special Grand Jury Hearing Proceedings)

[Confidential grand jury called into session at 9:03 a.m.
in Courtroom 9.]

[Grand jury role call omitted.]

MR. NOEL: Ready to start for the morning?

MS. DUPRE-TOKOS: Yes.

MR. NOEL: As soon as this comes up on the screen.
All right.

MS. DUPRE-TOKOS: We're bringing Sergeant Muchaca
back.

[Witness enters the courtroom.]

THE WITNESS: Good morning.

GRAND JURY FOREPERSON: Good morning. We're ready.

Sergeant Machuca, do you solemnly swear that the
evidence you shall give in this matter pending before the
grand jury shall be the truth, the whole truth and nothing
but the truth so help you God?

THE WITNESS: I do.

GRAND JURY FOREPERSON: Thank you have a seat.

///
///

EXAMINATION

BY MS. DUPRE-TOKOS:

Q. Good morning.

A. Morning.

Q. Thank you for coming back. I understand you're on duty today?

A. I am.

Q. Thank you for abandoning the fine folks of Yuba County and taking some time to come back up here in the fog.

We've already gone through all of the initial questions and your background and stuff.

A. Correct.

Q. So I just wanted to ask you a few more questions. And I want to talk about Jesus Fernandez, and you should have in front of you Exhibit 1054.

A. Yes.

[Exhibit No. 1054 was identified.]

BY MS. DUPRE-TOKOS:

Q. Just initially, were you on one of the teams looking for victims of the fire on November 11, 2018?

A. I was.

Q. And were you in Concow?

A. Yes.

Q. And did you find a victim of the fire on Broken Glass Circle in Concow?

1 A. Yes.

2 Q. And was that person deceased?

3 A. Yes.

4 Q. Was a case number assigned to that person?

5 A. Yes.

6 Q. Was that 18-19563?

7 A. Yes.

8 Q. And at some point -- looking at Exhibit 1054, at
9 some point, did you learn that that is a photograph of
10 Mr. Jesus Fernandez?

11 A. Yes.

12 Q. And do recall where Mr. Fernandez was located?
13 Was he in -- by a house, in a driveway, on the street?
14 Was there anything of note near him?

15 A. He was located in between two vehicles, laying
16 face down. The vehicles were parked off the side of a
17 dirt road.

18 Q. And I think that's all I have for you.

19 A. Okay.

20 MS. DUPRE-TOKOS: Any questions?

21 GRAND JUROR NUMBER FOUR: Just a clarification. Is
22 Broken Glass Circle the name of the street?

23 MS. DUPRE-TOKOS: Yes.

24 GRAND JUROR NUMBER FOUR: Okay.

25 MS. DUPRE-TOKOS: And you've heard that street name
26 before with a different witness.

1 GRAND JUROR NUMBER FOUR: Okay.

2 MS. DUPRE-TOKOS: So you just need your admonition.

3 GRAND JURY FOREPERSON: Okay.

4 Sergeant Machuca, you are admonished not to
5 discuss or disclose, at any time outside of this jury
6 room, the questions that have been asked of you or your
7 answers until authorized by this grand jury or the court.

8 A violation of these instructions on your part
9 may be the basis for a charge against you of contempt of
10 court. This does not preclude you from discussing your
11 legal rights with your own attorney.

12 Sergeant Machuca, what I have just said is a
13 warning not to discuss this case with anyone except the
14 court, your lawyer or the district attorney.

15 Do you have any questions?

16 THE WITNESS: No.

17 GRAND JURY FOREPERSON: Thank you for coming back.

18 THE WITNESS: Thank you.

19 MR. NOEL: Who is next?

20 MS. DUPRE-TOKOS: Morgan Turner.

21 [The witness enters the courtroom.]

22 GRAND JURY FOREPERSON: Deputy Turner, before you
23 have a seat, please raise your right hand to be sworn.

24 Deputy Turner, do you solemnly swear that the
25 evidence you shall give in this matter pending before the
26 grand jury shall be the truth, the whole truth and nothing

1 but the truth so help you God?

2 THE WITNESS: I do.

3 GRAND JURY FOREPERSON: Thank you. Have a seat,
4 please.

5 MS. DUPRE-TOKOS: I just need one moment.

6

7 **EXAMINATION**

8 BY MS. DUPRE-TOKOS:

9 Q. Good morning. Could you state and spell your
10 name for us for the record?

11 A. Morgan Turner, M-O-R-G-A-N and T-U-R-N-E-R.

12 Q. And are you employed?

13 A. Yes.

14 Q. In what capacity?

15 A. An investigative assistant at the Butte County
16 Sheriff's Office.

17 Q. And did you previously work at the Butte County
18 Sheriff's Office in a different capacity?

19 A. Yes, I did.

20 Q. And what was that?

21 A. I was a deputy sheriff for 13 years.

22 Q. Do you mind telling us why you're no longer a
23 deputy sheriff?

24 A. I was injured on duty.

25 Q. Okay. And you said you were at the Butte County
26 Sheriff's Office for 13 years as a deputy?

1 A. Yes.

2 Q. Did you work anywhere prior to the Butte County
3 Sheriff's Office as a sworn peace officer?

4 A. No, I did not.

5 Q. Okay. Were you assigned to assist with the Camp
6 fire?

7 A. Yes, I was.

8 Q. In what capacity?

9 A. I was assisting with the coroners division in
10 locating victims.

11 Q. And did you actually go out with a team looking
12 for victims of the fire?

13 A. Yes, I did.

14 Q. And on November 15, 2018, were you on such a
15 team?

16 A. Yes, I was.

17 Q. And did you go to a residence at 13812 West Park
18 Drive in Paradise?

19 A. Yes.

20 Q. Was that residence destroyed?

21 A. Yes, it was.

22 Q. Were human remains located at that residence?

23 A. Yes.

24 Q. And was a case number assigned to those remains?

25 A. Yes, there was.

26 Q. Was that case number 18-19701?

1 A. Yes.

2 Q. And at some point, did you learn that that is --
3 what -- Exhibit 1042, which should also be in front of
4 you -- at some point, did you learn that that is a
5 photograph of Joanne Caddy?

6 A. Yes.

7 [Exhibit No. 1042 was identified.]

8 BY MS. DUPRE-TOKOS:

9 Q. And at some point, did you also learn that the
10 remains associated with case number 18-19701 were those of
11 Ms. Joanne Caddy?

12 A. Yes.

13 Q. And looking at Exhibit 1043, can you tell us what
14 that's a photograph of?

15 A. That's a photograph of a destroyed residence on
16 West Park.

17 [Exhibit No. 1043 was identified.]

18 BY MS. DUPRE-TOKOS:

19 Q. Is that the destroyed residence where you found
20 Ms. Caddy's remains?

21 A. Yes.

22 Q. And looking at Exhibit 1044, can you tell us what
23 that's a photograph of?

24 A. This is a close-up photograph of the same
25 residence where we located the victim.

26 [Exhibit No. 1044 was identified.]

1 MS. DUPRE-TOKOS:

2 Q. And does that photograph show the remains of
3 Ms. Caddy?

4 A. Yes, it does.

5 Q. And looking at Exhibit 1045, can you tell us what
6 that is?

7 A. This is a piece of mail that I located the trash
8 can that was in front of the residence.

9 [Exhibit No. 1045 was identified.]

10 BY MS. DUPRE-TOKOS:

11 Q. And does it list the name Joanne Caddy on it?

12 A. Yes, it does.

13 Q. And does it also list the address of 13812 West
14 Park Drive in Magalia, California?

15 A. Yes.

16 Q. And then on November 16, 2018, were you also on a
17 team looking for victims of the Camp fire?

18 A. Yes, I was.

19 Q. Did you go to an address at 578 Roberts Drive in
20 Paradise?

21 A. I did.

22 Q. And was that residence destroyed?

23 A. Yes, it was.

24 Q. Were human remains located at that residence?

25 A. Yes.

26 Q. Was a case number assigned to those remains?

1 A. Yes.

2 Q. Was that case number 18-19733?

3 A. Yes.

4 Q. Now, at some point, did you learn -- looking at
5 Exhibit 1046.

6 [Exhibit No. 1046 was identified.]

7 BY MS. DUPRE-TOKOS:

8 Q. At some point, did you learn that that is a
9 photograph of Ms. Evelyn Cline?

10 A. Yes.

11 Q. And at some point, did you learn that the remains
12 associated with case number 18-19733 were the remains of
13 Ms. Evelyn Cline?

14 A. Yes.

15 Q. And then looking at Exhibit 1047.

16 [Exhibit No. 1047 was identified.]

17 BY MS. DUPRE-TOKOS:

18 Q. Can you tell us what that's a photograph of?

19 A. It's a picture of the residence that was
20 destroyed on Roberts Drive.

21 Q. And then looking at Exhibit 1048, can you tell us
22 what that's a photograph of?

23 A. It's an up-close photograph of the same
24 residence.

25 [Exhibit No. 1048 was identified.]

26 ///

1 BY MS. DUPRE-TOKOS:

2 Q. And does this photograph also include a -- the
3 remains of Ms. Cline?

4 A. Yes, it does.

5 Q. Okay. Then on November 17, 2018, were you again
6 on a team looking for victims of the Camp fire?

7 A. Yes.

8 Q. Did you go to an address at 1449 Sleepy Hollow in
9 Paradise?

10 A. Yes.

11 Q. And was that residence destroyed?

12 A. Yes, it was.

13 Q. Were human remains located at that residence?

14 A. Yes.

15 Q. And was a case number assigned to those remains?

16 A. Yes.

17 Q. Was that case number 18-19754?

18 A. Yes.

19 Q. Looking at Exhibit 1049.

20 [Exhibit No. 1049 was identified.]

21 BY MS. DUPRE-TOKOS:

22 Q. At some point, did you learn that that is a
23 photograph of Ms. Isabel Webb?

24 A. Yes.

25 Q. And at some point, did you also learn that the
26 remains associated with case number 18-19754 were those of

1 Ms. Isabel Webb?

2 A. Yes.

3 Q. And looking at Exhibit 1050.

4 [Exhibit No. 1050 was identified.]

5 BY MS. DUPRE-TOKOS:

6 Q. Can you tell us what that's a photograph of?

7 A. That's a photograph of a destroyed residence.

8 Q. And is that the residence where you found

9 Ms. Webb's remains on Sleepy Hollow?

10 A. Yes.

11 Q. And looking at Exhibit 1051.

12 [Exhibit No. 1051 was identified.]

13 BY MS. DUPRE-TOKOS:

14 Q. Can you tell us what that's a photograph of?

15 A. It's a up close photograph of the same residence.

16 Q. And does this photograph also show the remains of

17 Ms. Webb?

18 A. Yes, it does.

19 Q. And looking at Exhibit 1052.

20 [Exhibit No. 1052 was identified.]

21 BY MS. DUPRE-TOKOS:

22 Q. Can you tell us what that's a photograph of?

23 A. That's a photograph of the street sign at the end
24 of the road where that residence was.

25 Q. So the street sign for Sleepy Hollow Lane?

26 A. Yes.

1 Q. And looking at Exhibit 1053.

2 [Exhibit No. 1053 was identified.]

3 BY MS. DUPRE-TOKOS:

4 Q. Can you tell us what that's a photograph of?

5 A. This is a piece of mail that I located in the
6 undamaged mailbox that was in front of the residence on
7 Sleepy Hollow.

8 Q. And is that piece of mail addressed to -- who the
9 piece of mail addressed to?

10 A. Isabel A. Webb.

11 Q. And does it list an address?

12 A. Yes, it does.

13 Q. What is that address?

14 A. 1449 Sleepy Hollow Lane in Paradise.

15 Q. And this mail is propped up on the open door of
16 the mailbox; is that correct?

17 A. Yes, it is.

18 Q. Is there a number on the open door of the
19 mailbox?

20 A. Yes, there is.

21 Q. And what number of is that?

22 A. 1449.

23 Q. So that corresponds with Ms. Webb's street
24 address?

25 A. Correct.

26 MS. DUPRE-TOKOS: I have nothing further.

1 Are there any questions? No.

2 Then your just need an admonition from madam
3 foreperson.

4 GRAND JURY FOREPERSON: Deputy Turner, you are
5 admonished not to discuss or disclose at any time outside
6 of this jury room, the questions that have been asked of
7 you or your answers until authorized by this grand jury or
8 the court.

9 A violation of these instructions on your part
10 may be the basis for a charge against you of contempt of
11 court. This does not preclude you from discussing your
12 legal rights with your own attorney.

13 Deputy Turner, what I have just said is a warning
14 not to discuss this case with anyone except the court,
15 your lawyer or the district attorney.

16 Do you have any questions?

17 THE WITNESS: I do -- no, I do not.

18 GRAND JURY FOREPERSON: Thank you for your time.

19 THE WITNESS: Thank you.

20 MS. DUPRE-TOKOS: Thank you.

21 Can we go off the record for just a moment?

22 MR. NOEL: Sure.

23 MS. DUPRE-TOKOS: Okay. We can go back on.

24 MR. NOEL: All right. Larson?

25 MS. DUPRE-TOKOS: Yes, Sergeant Larson.

26 MR. NOEL: After this witness, we will take a break

1 and give you a little breather before we get into the
2 really --

3 MS. DUPRE-TOKOS: Dry, boring stuff.

4 MR. NOEL: Yeah, that's the plan.

5 [The witness enters the courtroom.]

6 MR. NOEL: The witness stand has been condemned, so
7 you have to use the desk.

8 THE WITNESS: Okay.

9 GRAND JURY FOREPERSON: Sergeant Larson, before a
10 have a seat, please stand and raise your right hand to be
11 sworn.

12 Sergeant Larson, do you solemnly swear that the
13 evidence you shall give in this matter pending before the
14 grand jury shall be the truth, the whole truth and nothing
15 but the truth so help you God?

16 THE WITNESS: Yes, ma'am.

17 GRAND JURY FOREPERSON: Thank you. Have a seat,
18 please.

19 **EXAMINATION**

20 BY MS. DUPRE-TOKOS:

21 Q. Good morning.

22 A. Good morning.

23 Q. Could you please state and spell your last name
24 for us for the record?

25 A. Tiffany Larson, L-A-R-S-O-N.

26 Q. And where are you employed and in what capacity?

1 A. I work for the Butte County Sheriff's Office as a
2 patrol sergeant.

3 Q. How long have you been a sworn law enforcement
4 officer?

5 A. About nine years.

6 Q. And how long have you been with the Butte County
7 Sheriff's Office?

8 A. About four.

9 Q. Where were you prior to the sheriff's office?

10 A. I worked for the Paradise Police Department in
11 the capacity of an officer.

12 Q. And how long were you with Paradise Police?

13 A. A little over five years.

14 Q. Do you have any sworn law enforcement experience
15 prior to Paradise Police Department?

16 A. No, ma'am.

17 Q. Were you assigned to assist with the Camp fire?

18 A. Yes, I was.

19 Q. Is what capacity?

20 A. After the initial event, I was assigned to the
21 body recovery portion of the incident.

22 Q. You said "after the initial event," were you
23 participating during the actual event?

24 A. Yes, ma'am.

25 Q. Were you helping with evacuations?

26 A. Yes, ma'am.

1 Q. Were you on a team that was tasked with looking
2 for victims on November 16, 2018?

3 A. Yes, ma'am.

4 Q. And did you go to 1812 Drendel Circle in
5 Paradise?

6 A. Yes.

7 Q. Was that residence destroyed?

8 A. Yes, it was.

9 Q. And were you human remains located at that
10 residence?

11 A. Yes, ma'am.

12 Q. Was a case number assigned to those remains?

13 A. Yes, ma'am.

14 Q. Was that case number 18-19727?

15 A. Yes.

16 Q. At some point, looking at Exhibit 1032, which
17 should also be in front of you.

18 [Exhibit No. 1032 was identified.]

19 BY MS. DUPRE-TOKOS:

20 Q. At some point, did you learn that that's a
21 photograph of Sara Magnuson?

22 A. Yes, ma'am.

23 Q. And were you familiar with Ms. Magnuson already?

24 A. Yes, I was.

25 Q. At some point, did you learn that the remains
26 associated with case number 18-19727 were those of

1 Ms. Sara Magnuson?

2 A. Yes.

3 Q. Showing you Exhibit 1033.

4 [Exhibit No. 1033 was identified.]

5 BY MS. DUPRE-TOKOS:

6 Q. Can you tell us what that's a photograph of?

7 A. This is a photograph standing in front of
8 Ms. Magnuson's house or what was left of it.

9 Q. Okay. That's the house on Drendel Circle?

10 A. Yes, ma'am.

11 Q. And looking at Exhibit 1034.

12 [Exhibit No. 1034 was identified.]

13 BY MS. DUPRE-TOKOS:

14 Q. Can you tell us what that's a photograph of?

15 A. This a photograph of the bathtub where
16 Ms. Magnuson was -- her remains were located.

17 Q. And Exhibit 1035.

18 [Exhibit No. 1035 was identified.]

19 BY MS. DUPRE-TOKOS:

20 Q. Can you tell us what that's a photograph of?

21 A. This is a mailbox that is associated with
22 Ms. Magnuson's house.

23 Q. And does it say -- give her house number on it?

24 A. Yes, it does.

25 Q. And Exhibit 1036.

26 [Exhibit No. 1036 was identified.]

1 BY MS. DUPRE-TOKOS:

2 Q. It's a little hard to see, but can you tell us
3 what that is?

4 A. This is a photograph of the -- of her mailbox
5 opened with, looks like, a piece of mail or correspondence
6 in it.

7 Q. And then looking at Exhibit 1037.

8 [Exhibit No. 1037 was identified.]

9 BY MS. DUPRE-TOKOS:

10 Q. Can you tell us what that is?

11 A. It's a PG&E bill that was sent to Ms. Magnuson
12 that was in her mailbox at the time of the fire.

13 Q. So that's the correspondence that we could see in
14 the previous exhibit?

15 A. Yes, ma'am.

16 Q. And I'm sorry, that lists both her name and her
17 address, correct?

18 A. Correct.

19 Q. And then on November 17th, were you, again, on a
20 team looking for victims of the Camp fire?

21 A. Yes, ma'am.

22 Q. Did you go to 6674 Pentz Road in Paradise?

23 A. Yes, I did.

24 Q. And was that residence destroyed?

25 A. Yes, it was.

26 Q. And were human remains located there?

1 A. Yes, ma'am.

2 Q. And were those human remains given a case number?

3 A. Yes, they were.

4 Q. Was that case number 18-19760?

5 A. Yes.

6 Q. Looking at Exhibit 1038.

7 [Exhibit No. 1038 was identified.]

8 BY MS. DUPRE-TOKOS:

9 Q. At some point, did you learn that the older woman
10 on the right is a photograph of Ms. Helen Pace?

11 A. Yes, ma'am.

12 Q. And at some point, did you also learn that the
13 remains associated with case number 18-19760 were those of
14 Ms. Pace?

15 A. Yes, ma'am.

16 Q. Looking at Exhibit 1039.

17 [Exhibit No. 1039 was identified.]

18 BY MS. DUPRE-TOKOS:

19 Q. Can you tell us what that's a photograph of?

20 A. This is a bank of mailboxes that were at the
21 end -- closest to the road of Ms. Pace's mobile home park.

22 Q. And is there -- can you see Ms. Pace's mailbox in
23 the photograph?

24 A. Yes, you can. It's at the top, about the middle.
25 It's 105.

26 Q. Are you able to make out the name on the mailbox

1 below Ms. Pace's? You can get up and look if that helps.
2 It may not help.

3 A. It says Ammons.

4 Q. Ammons?

5 A. Yes, ma'am.

6 Q. And looking at Exhibit 1040.

7 [Exhibit No. 1040 was identified.]

8 BY MS. DUPRE-TOKOS:

9 Q. Can you tell us what this is a photograph of?

10 A. This is photo of Ms. Pace's house -- destroyed
11 residence from the driveway.

12 Q. And then Exhibit 1041.

13 [Exhibit No. 1041 was identified.]

14 BY MS. DUPRE-TOKOS:

15 Q. Can you tell us what this is photograph of?

16 A. That's a photograph of Ms. Pace's remains.

17 MS. DUPRE-TOKOS: And I have nothing further.

18 Does anyone have any questions? Okay. You just
19 need to get the admonition from madam foreperson. Thank
20 you.

21 THE WITNESS: Okay. Thank you.

22 GRAND JURY FOREPERSON: Sergeant Larson, you are
23 admonished not to discuss or disclose at any time outside
24 of this jury room, the questions that have been asked of
25 you or your answers until authorized by this grand jury or
26 the court.

1 A violation of these instructions on your part
2 may be the basis for a charge against you of contempt of
3 court. This does not preclude you from discussing your
4 legal rights with your own attorney.

5 Sergeant Larson, what I have just said is a
6 warning not to discuss this case with anyone except the
7 court, your lawyer or the district attorney.

8 Do you have any questions?

9 THE WITNESS: No, ma'am.

10 GRAND JURY FOREPERSON: Okay. Thank you for your
11 time today.

12 THE WITNESS: Thank you.

13 MR. NOEL: All right. We've buzzed through some --
14 some stuff pretty quickly. We've only been in session for
15 about 35 minutes, but let's go ahead and take a break
16 before we get into some more death evidence.

17 Madam Foreperson?

18 GRAND JURY FOREPERSON: 15 minutes.

19 MR. NOEL: Sounds good to me.

20

21 [Recess taken from 9:28 until 9:51 a.m. whereupon the
22 grand jury comes to order in Courtroom 9.]

23

24 GRAND JURY FOREPERSON: All members of the grand jury
25 are present, back from break, and we're ready to proceed.

26 [The witness enters the courtroom.]

1 MS. DUPRE-TOKOS: Okay. Except that I don't know why
2 the PowerPoint is not on the screen, and I have not
3 touched that thing.

4 GRAND JURY FOREPERSON: Please raise your right hand
5 to be is sworn.

6 Investigator Celentano, do you solemnly swear
7 that the evidence you shall give in this matter pending
8 before the grand jury shall be the truth, the whole truth
9 and nothing but the truth so help you God?

10 THE WITNESS: I do.

11 THE COURT: Thank you have a seat, please.

12 GRAND JUROR NUMBER TWO: I don't think the TV is on.

13 MS. DUPRE-TOKOS: That was going to be the next
14 thing. Yeah, he turned it off.

15

16 **EXAMINATION**

17 BY MS. DUPRE-TOKOS:

18 Q. Okay. Good morning.

19 A. Good morning.

20 Q. And I know you've done this before, but can you
21 state and spell your last name for the record?

22 A. Sure. Jennifer Celentano. Last name is spelled
23 C-E-L-E-N-T-A-N-O.

24 Q. And we've gone through your qualifications when
25 you testified last week?

26 A. Yes.

1 Q. So let's just start talking about death
2 certificates.

3 A. Okay.

4 Q. Who fills out death certificates?

5 A. So the death certificate is started by the
6 funeral home, and they collect all the information as far
7 as the name, date of birth of the decedent, and then the
8 bottom portion, causes of death and things like that are
9 filled out by the coroner's office.

10 Q. Okay. And so -- and you've got a binder in front
11 of you that has all of the certified copies of all the
12 death certificates so you can refer to section numbers
13 there, if that helps you.

14 A. Okay.

15 Q. And we're going to first take about Mr. Herbert
16 Alderman?

17 A. Okay.

18 Q. And his Butte County case number is 18-19836; is
19 that correct?

20 A. Yes.

21 Q. Okay. And I know the -- the jurors probably are
22 not going to be able to see the details on that, but they
23 can -- you might need to stand up and point to where some
24 of the sections are.

25 A. Okay.

26 Q. So you said the funeral home fills out a portion

1 of it, would that be sections 1 through 106?

2 A. Yes.

3 Q. So let's talk about sections 1 through 38.

4 A. Okay.

5 Q. And that's up at the very top, correct?

6 A. Yes.

7 Q. What kinds of information is that, just those 1
8 through 38?

9 A. Can I get up and point?

10 Q. Absolutely.

11 A. So the top portion that the funeral home fills
12 out has their name, their date of birth, the find date, in
13 this case for the Camp fire, the FND means the date that
14 they were found. Then it has the Social Security number,
15 it talks about his occupation, and then his home address.

16 Q. Okay. So 1 through 38, does that -- where is 38?

17 A. 38 is here. And that's birth state, and in this
18 case we did not know that information.

19 Q. Okay. And where does the funeral home get that
20 information?

21 A. The funeral home gets that information from the
22 next of kin, family members.

23 Q. What if in, for example, Mr. Alderman's case,
24 there is no next of kin?

25 A. So in Mr. Alderman's case, he had Ms. Henderson,
26 who husband his power of attorney, so she provided all the

1 information that she could.

2 Q. So sections 1 through 19, it looks like you were
3 pointing at, that has really the personal identifying
4 information?

5 A. Yeah, this top section up here.

6 Q. And then sections 20 through 25. That's place of
7 residence, would that be --

8 A. Yes, that's the decedent's residence.

9 Q. -- generally accurate?

10 A. Yes.

11 Q. And then sections 26 and 27. And if it's easier
12 for you, you can take that out of the --

13 A. Okay.

14 Q. -- you can pull it out of the sleeve or pull the
15 whole sleeve out.

16 A. Okay. So 26 and 27. These are really hard to
17 see. Okay. So that's informant. So in this case, it was
18 his power of attorney, Rose Henderson.

19 Q. So sections 28 through 38, what type of
20 information is that?

21 A. That would be the spouse's information, the
22 surviving spouse. In this case, he didn't -- we didn't
23 know. He didn't have one.

24 Q. Would it also include state registered domestic
25 partner?

26 A. Yes.

1 Q. And does it also generally include information
2 about the decedent's parents?

3 A. Yes.

4 Q. And then sections 39 through 47, what information
5 is included in those?

6 A. So that would be this section here. That's
7 filled out by the funeral home. It tells you where their
8 final disposition was and, in this case, it was the
9 Paradise Cemetery. And then it tells you -- what is that
10 one there? Type of disposition. So BU stands for burial,
11 and he was not embalmed.

12 Q. So you said "type of disposition," what does --
13 what does that mean? You said burial. What other options
14 would there be?

15 A. So there's cremation. You can be entombed.
16 Typically, it's usually burial or cremation.

17 Q. And then place of final disposition, what does
18 that mean?

19 A. Place of final disposition is where the remains
20 are placed. So in this case, it would be the Paradise
21 Cemetery.

22 Q. But if the person were cremated, it can be sent
23 to an address?

24 A. It could be, yes. If the next of kin decided to
25 keep the cremains, yes.

26 Q. And then are there sections number 48 through 100

1 also on the death certificate?

2 A. 48 through 100? No.

3 Q. Okay. And then are there sections 100 through
4 106? And I believe you said that's also filled out by the
5 funeral home?

6 A. Yes, that would be the place of death. So in
7 this case, he died in his own residence, and then the
8 address is here.

9 Q. And how does the funeral home get that
10 information?

11 A. That, in the Camp fire cases, was provided by us,
12 the coroner's office as we collected the remains.

13 Q. And then who fills out the remainder of the form,
14 so basically sections 107 to the end?

15 A. So from here down is the responsibility of the
16 coroner's office.

17 Q. And does the funeral home fill out, like, a paper
18 copy and then give it to the coroner's office, or is it
19 electronic or how does that work?

20 A. So we have an electronic death registry called
21 EDRS. So the funeral home will start this in EDRS, and
22 then they'll refer it to us and then we will complete it.

23 Q. So it's all computerized?

24 A. It's all computerized.

25 Q. Okay. And then how do you know that the funeral
26 home has done their part and it's ready for the coroner's

1 office to do their part?

2 A. They have to refer it to us, so it shows up in
3 our que, the ones that they have completed.

4 Q. And then is there a time limit for the coroner's
5 office to complete their portion of the form?

6 A. Yes. We have eight days to give causes of death
7 in every case.

8 Q. So what is section 107?

9 A. 107 is the cause of death.

10 Q. Okay. And so the coroner's office fills that
11 section out?

12 A. Correct.

13 Q. Where do you get that information? When I say
14 "you," I mean the coroner's office.

15 A. We get that from the pathologist.

16 Q. Okay. Would that be from an autopsy report
17 generally?

18 A. Yes.

19 Q. And then what is section 108?

20 A. Section 108 is the coroner's case number, and
21 then the box that is checked is that, yes, it was reported
22 to us.

23 Q. Okay. And so what is the coroner's case number?

24 A. Coroner's case number from Mr. Alderman is
25 18-19836.

26 Q. Is that the same as the case number that was

1 assigned to his remains when they were first located?

2 A. Yes.

3 Q. So it stays the same number throughout?

4 A. Yes.

5 Q. What is section one -- 109?

6 A. 109 says -- asks if there was a biopsy performed.

7 In this case, there was not.

8 Q. Were there any biopsies performed for any of the
9 people whose remains were located in the Camp fire zone?

10 A. No.

11 Q. What is section 110?

12 A. 110 asks if there was an autopsy performed and,
13 in this case, the box is checked "yes."

14 Q. What is section -- well, was an autopsy performed
15 on all of the people whose remains were found in the fire
16 zone following the Camp fire?

17 A. Yes.

18 Q. So that box is going to be checked on all of the
19 death certificates that we're going to talk about today?

20 A. Yes.

21 Q. And then section 111?

22 A. Section 111 asks if the autopsy was used -- let's
23 see -- used in determining the cause. So it's asking if
24 we used the findings in the autopsy to determine the cause
25 of death, and we did in this case and with all of the Camp
26 fire cases.

1 Q. What does section 119 include?

2 A. Man, these are so small. 119, gosh --

3 Q. Would that be manner of death?

4 A. Yes.

5 Q. I will help out.

6 A. Sorry, it's really hard to see. Yes, this
7 section is manner of death.

8 Q. What are the options for manner of death?

9 A. Natural, accident, homicide, suicide and pending
10 investigation.

11 Q. And is there also one for could not be
12 determined?

13 A. Oh, yes, could not be determined as well.

14 Q. What would a death due to a wildfire be
15 designated as?

16 A. That would be an accident.

17 Q. And then section 120, is that a question about
18 whether the decedent was injured at work?

19 A. Yes.

20 Q. Okay. And then 121, is that asking the date of
21 the injury?

22 A. Yes.

23 Q. And so in Mr. Alderman's case, is that filled in?

24 A. Yes. So in this case, we couldn't determine the
25 exact date that he had been injured by the fire. So we
26 have the month and the year. And so the dashes, just

1 indicate that we're not positive which day he passed away.

2 Q. And so that's the coroner's office custom and
3 habit for any time you don't know the exact date of the
4 injury, you just include the month and the year?

5 A. Yes.

6 Q. And then does 122 -- section 122, is that looking
7 for the hour of injury?

8 A. Yes.

9 Q. And is that filled in for Mr. Alderman?

10 A. Yes.

11 Q. And what's --

12 A. Sorry. In this case, it's up unknown, because we
13 didn't know exactly what time he expired.

14 Q. So for the death certificates for all the people
15 whose remains were found in the fire zone after the Camp
16 fire -- for all of them, was the date just "11/--/2018"
17 and then the time "unknown"?

18 A. Yes.

19 Q. And then does it ask for place of injury in
20 section 123?

21 A. Yes.

22 Q. And is that generally an address or?

23 A. So that's going to be a location of where the
24 person was found. In this case, he was found in his home.

25 Q. So if someone was at work, would it say work or?

26 A. Yes.

1 Q. And then section 124, was is that section?

2 A. So any time we rule something an accident, we
3 have to fill out this portion. And in this case, we had
4 to put in -- kind of explain about the accident. So in
5 this case, he was a victim of wildfire as will be all of
6 the Camp fire victims.

7 Q. Okay. And so is that box labeled something along
8 the lines of "description of how the injury occurred"?

9 A. Yes.

10 Q. And then section 125, what information goes
11 there?

12 A. So that is a specific address of where the injury
13 occurred. And in this case, it is his home address.

14 Q. What is section 126?

15 A. 126 is the signature of the chief deputy coroner,
16 Lieutenant Hale.

17 Q. So, generally, just -- to generalize, it would be
18 the signature of the coroner or deputy coroner who filled
19 this out?

20 A. Correct.

21 Q. And then 127, is that just the date of the
22 signature?

23 A. Yes.

24 Q. And then 128, the typed name and title of the
25 coroner or deputy coroner?

26 A. Yes.

1 Q. What do you do if you don't know the name of the
2 decedent?

3 A. Then we put John Doe for males and Jane Doe for
4 females.

5 Q. What do you do if you don't have a cause of death
6 by the time you need to file the death certificate with
7 ERDS?

8 A. Then "pending status" will be put right here, and
9 then when we get the causes of death, an amendment will be
10 created to insert the causes of death.

11 Q. How does the amendment work?

12 A. So after the autopsy, the pathologist will tell
13 us their causes of death, and then we will go through and
14 it's -- the amendment will show which lines that need to
15 be changed. So it'll show line -- where am I? 107 here,
16 whatever line this is, instead of saying "pending" on the
17 other side, it'll say "fire-related injuries."

18 Q. So it gives the line, and then what the new
19 information should be on the amendment?

20 A. Right.

21 Q. What types of ways are identification of remains
22 made?

23 A. DNA, fingerprints, dental. Let's see, what else
24 did we do? I think that's about it.

25 Q. Sometimes it done through circumstantial
26 evidence?

1 A. Oh, yes, and circumstantial, yes.

2 Q. And then when you say "dental," is that -- is the
3 formal name odontology?

4 A. Yes.

5 Q. And then I think you can sit down.

6 A. Okay.

7 Q. I think we're done going through that.

8 A. Okay.

9 Q. So what would make a determination of
10 identification by circumstantial evidence?

11 A. The Sheriff did in this case, because he is the
12 coroner in our county.

13 Q. So you're saying in this case -- was he the
14 ultimate decision maker regarding identification via
15 circumstantial evidence for all people whose remains were
16 found in the fire zone following the Camp fire?

17 A. Yes.

18 Q. And what exactly do you mean by "circumstantial
19 evidence"?

20 A. So what I did in circumstantial cases was I
21 gathered the information, for example, was it their home?
22 Was there vehicle there? Were there phone calls? Did
23 someone call and talk to them just before the fire and
24 knew that they were in the house? So I would gather up
25 all of that information and give it to the Sheriff, and he
26 would determine whether or not that was enough to identify

1 them.

2 Q. Now, this procedure that we just talked about for
3 filling out the death certificates. Is that the same
4 procedure that is followed for every death in Butte
5 County?

6 A. Yes.

7 Q. So not just for the victims of the Camp fire?

8 A. Right.

9 Q. Were all the death certificates for the people
10 whose remains were found in the fire zone following the
11 Camp fire prepared in the regular course of the coroner's
12 business?

13 A. Yes.

14 Q. Is the preparation of death certificates within
15 the scope of duties of the coroner's office?

16 A. Yes.

17 Q. And are the coroner and deputy coroner public
18 employees?

19 A. Yes.

20 Q. Were the death certificates for the people whose
21 remains were located in the fire zone following the Camp
22 fire, were their death certificates prepared at or near
23 the time of their death?

24 A. Yes.

25 Q. And is a few months considered near the time of
26 death if that's when you're getting the information that

1 you need?

2 A. Yes.

3 Q. Were you designated by the coroner's office to
4 come here today to testify as to the identity and mode of
5 preparation of the death certificates for the Camp fire
6 victims?

7 A. Yes.

8 Q. What if someone was hurt in the fire, and then
9 died from their injuries but they died in another county?
10 Who would be responsibility for that death certificate?

11 A. So we did have a couple of cases like that, where
12 victims were life flighted out of our county and they
13 passed away in another county. That county becomes
14 responsible for starting that death certificate, or the
15 funeral home in their county, wherever the family chooses
16 them to go.

17 Q. Can Butte County pull up death certificates on
18 ERDS on another county?

19 A. No.

20 Q. So Butte County are only has access to their own?

21 A. Yes.

22 Q. Were all the death certificates for the people
23 whose remains were located in the fire zone following the
24 Camp fire filed as required by law with the State Office
25 of Vital Records?

26 A. Yes.

1 Q. Okay. So we've already had it up on the screen,
2 Exhibit 857.

3 [Exhibit No. 857 was identified.]

4 THE WITNESS: Yes.

5 BY MS. DUPRE-TOKOS:

6 Q. What is that document?

7 A. That's the death certificate for Mr. Herbert
8 Alderman.

9 Q. And I believe you said it already, but what's the
10 case number listed on the death certificate?

11 A. The case number 18-19836.

12 Q. And what is the listed manner of death on
13 Mr. Alderman's death certificate?

14 A. The manner of death is an accident.

15 Q. And I think I asked you this, but just to be
16 safe, was accident -- I think you said it, was accident
17 listed as a manner of death on all the death certificates
18 of the people whose remains were located in the fire zone?

19 A. Yes.

20 Q. Okay. What is the description of how the injury
21 occurred on Mr. Alderman's death certificate?

22 A. How the injury occurred? Oh, victim of a
23 wildfire.

24 Q. And I think, again, you said that "victim of
25 wildfire" is listed as how the injury occurred on all of
26 the people whose remains were located in the fire zone

1 following the Camp fire?

2 A. Yes.

3 Q. And what is listed as the immediate cause of
4 death on Mr. Alderman's death certificate?

5 A. Immediate cause is fire-related injuries.

6 Q. Okay. And how was Mr. Alderman identified?

7 A. He was identified by circumstantial evidence.

8 Q. Okay. And in this case, do you recall what the
9 circumstantial evidence was?

10 A. He -- the anthropologist, the forensic
11 anthropologist down in Sac County had said it looks like
12 an older male. He was at the address where he should have
13 been, and they found some mail in the garbage addressed to
14 him.

15 In this case, we also identified him with
16 genealogy later, so.

17 Q. What do you mean by "identified with genealogy"?

18 A. So ANDE, the rapid DNA company, took -- was able
19 to get kind of snips of DNA and they sent those to
20 ancestry.com and they were able to make those links
21 between his ancestry and to go ahead and ID him by DNA
22 essentially.

23 Q. Okay. And Mr. Alderman did not have any known
24 next-of-kin; is this correct?

25 A. That's correct.

26 Q. And that's why it had to be done circumstantially

1 and then through genealogy?

2 A. Yes.

3 Q. Okay. Next is Teresa Ammons. So if you look at
4 Exhibit 856, I believe it is. What is Exhibit 856? Oh,
5 it's 858, sorry.

6 [Exhibit No. 858 was identified.]

7 THE WITNESS: They don't have the exhibit numbers on
8 them, but I figured it out, yeah. This is the death
9 certificate for Teresa Ammons.

10 BY MS. DUPRE-TOKOS:

11 Q. And what is the case number for Ms. Ammons?

12 A. 18-19598.

13 Q. Again, that's the same as the sheriff's case
14 number that was assigned to her remains when they were
15 located?

16 A. Yes.

17 Q. And that's the same for all of the people whose
18 remains were located in the fire zone?

19 A. Yes.

20 Q. What is listed as the manner of death on
21 Ms. Ammon's death certificate?

22 A. It is listed as pending.

23 Q. Okay. And so is that one of the ones where there
24 would be an amendment?

25 A. Yes.

26 Q. And does the death certificate list a description

1 of how the injury occurred?

2 A. It does not.

3 Q. Okay. And does it list immediate cause of death?

4 A. It just has pending.

5 Q. Okay. You may have to pull the death certificate
6 out of that sleeve for the second page.

7 A. For the amendment, okay.

8 Q. And what is that second page?

9 A. This is the amendment to the death certificate.

10 Q. And it does the procedure you described to us
11 where it gives the line that needs to be corrected and
12 what the correction information should be?

13 A. Yes. So you can see here where we had put
14 pending to cause of death, we changed it to fire-related
15 injury. And then pending investigation was changed to
16 accident, and then the rest of this was filled out.

17 Q. Does it give -- so the listed manner of death was
18 changed to accident, does it give a description of how the
19 injury occurred?

20 A. Did -- oh, yes, victim of wildfire.

21 Q. And what's listed as the immediate cause of
22 death?

23 A. Fire-related injuries.

24 Q. And how is Ms. Ammons identified?

25 A. She was identified by DNA.

26 Q. And then Rafaela Andrade should be the next.

1 A. Okay, yeah.

2 Q. Okay. The evidence numbers should be on the back
3 of the document.

4 A. Oh, thank you.

5 Q. So Ms. Andrade should be Exhibit 859, her death
6 certificate?

7 A. Yes.

8 [Exhibit No. 859 was identified.]

9 BY MS. DUPRE-TOKOS:

10 Q. And what is the listed case number on her death
11 certificate?

12 A. Her case number is 18-19533.

13 Q. Okay. And what is the listed manner of death on
14 Ms. Andrade's death certificate?

15 A. It's listed as an accident.

16 Q. What's the deposition of how the injury occurred?

17 A. She's a victim of wildfire.

18 Q. What's listed as the immediate cause of death?

19 A. Fire-related injuries.

20 Q. And how is Ms. Andrade identified?

21 A. She was identified by DNA.

22 Q. And then Ms. Carol Arrington should be
23 Exhibit 860.

24 [Exhibit No. 860 was identified.]

25 THE WITNESS: Yes.

26 ///

1 BY MS. DUPRE-TOKOS:

2 Q. And what exhibit number -- or I'm sorry -- case
3 number does it give on Ms. Arrington's death certificate?

4 A. Her case number is 18-19764.

5 Q. And so this is Exhibit 860. What's the listed
6 manner of death?

7 A. This one is pending.

8 Q. Okay. And does it give a description -- so since
9 it doesn't have a manner of death, does it also have
10 pending for description of how the injury occurred?

11 A. Yes.

12 Q. Does it list an immediate cause of death?

13 A. No, just pending.

14 Q. Okay. Is there an amendment?

15 A. Yes.

16 Q. Okay. And what does it list as manner of death?

17 A. Manner of death is an accident.

18 Q. And description of how the injury occurred?

19 A. That's a victim of wildfire.

20 Q. And what is listed as the immediate cause of
21 death?

22 A. Fire-related injuries.

23 Q. And how was Ms. Arrington identified?

24 A. She was identified by odontology, or we just say
25 dental.

26 Q. Okay. And just very briefly, are you able to

1 tell us, even what "dental" means?

2 A. Yeah, so it was really important when we were
3 collecting the remains to find as many teeth as we could,
4 because teeth kind of tell a story. So what -- what the
5 odontologist would do is lay out all the teeth and fill in
6 all the charts, look for crowns and fillings, things like
7 that. Things that could identify people easily. And then
8 we contacted the State Dental Board and they put out a --
9 kind of a search for all the dentists in California to see
10 if they can find the records of people that were victims
11 of the Camp fire, and we were able to identify several
12 people this way.

13 Q. So once the -- once a dentist is identified as
14 having treated one of the victims as their patient, do
15 they, then, just send their X-rays or their records to
16 whatever dentist is doing the comparison?

17 A. Yes. So all of the X-rays in this case were sent
18 to the Sacramento County Coroner's Office.

19 Q. Okay. And then Exhibit 861.

20 [Exhibit No. 861 was identified.]

21 BY MS. DUPRE-TOKOS:

22 Q. What is that document?

23 A. Oh, 861. That is the death certificate for
24 Mr. Julian Binstock.

25 Q. Okay. And what is the case number listed on the
26 death certificate?

1 A. 18-19599.

2 Q. And is there a listed manner of death on the
3 death certificate?

4 A. Yes, it was.

5 Q. What is that?

6 A. It was an accident.

7 Q. What's the description of how the injury
8 occurred?

9 A. He was a victim of wildfire.

10 Q. What's listed as immediate cause of death?

11 A. Fire-related injuries.

12 Q. And how was Mr. Binstock identified?

13 A. He was identified by DNA.

14 Q. And then going to Exhibit 862.

15 A. Okay.

16 [Exhibit No. 862 was identified.]

17 BY MS. DUPRE-TOKOS:

18 Q. Who is that a death certificate for?

19 A. Death certificate for Mr. David Bradburd.

20 Q. What's the case number listed on the death
21 certificate?

22 A. 18-19499.

23 Q. Is there a manner of death listed?

24 A. No.

25 Q. So is it listed as pending?

26 A. Yes.

1 Q. And then would it be correct then that the
2 description of how the injury occurred and the immediate
3 cause of death would also be pending?

4 A. Yes.

5 Q. So there an amendment?

6 A. Yes.

7 Q. And just so we're clear, the amendment is
8 attached to the death certificate; is that correct?

9 A. Yes.

10 Q. And it's basically considered part of -- it's all
11 one document?

12 A. Correct.

13 Q. Okay. So on the amendment, is the manner of
14 death listed?

15 A. Yes. An accident.

16 Q. What about description of how the injury
17 occurred?

18 A. Is a victim of wildfire.

19 Q. And immediate cause of death?

20 A. Fire-related injuries.

21 Q. And how was Mr. Bradburd identified?

22 A. He was identified by DNA.

23 Q. And then looking at Exhibit 863.

24 [Exhibit No. 863 was identified.]

25 BY MS. DUPRE-TOKOS:

26 Q. Who is that a death certificate for?

1 A. This is death certificate of Cheryl Brown.

2 Q. And what is case number listed on her death
3 certificate?

4 A. 18-19675.

5 Q. Is there manner of death listed?

6 A. Yes.

7 Q. What is that?

8 A. Accident.

9 Q. And what is the description of how the injury
10 occurred?

11 A. Victim of wildfire.

12 Q. What's listed as the immediate cause of death?

13 A. Fire-related injuries.

14 Q. And how was Ms. Brown identified?

15 A. She was identified by DNA.

16 Q. And moving on to Exhibit 864.

17 [Exhibit No. 864 was identified.]

18 BY MS. DUPRE-TOKOS:

19 Q. Whose death certificate is that?

20 A. It's a death certificate for Larry Brown.

21 Q. What is the case number listed on the death
22 certificate?

23 A. 18-19674.

24 Q. Is there a manner of death listed?

25 A. This one is pending.

26 Q. And would description of how the injury occurred

1 and immediate cause of death also be pending then?

2 A. Yes.

3 Q. Is there an amendment?

4 A. Yes.

5 Q. And does the amendment list manner of death?

6 A. Yes. Accident.

7 Q. Okay. Does the amendment list description of how
8 the injury occurred?

9 A. Yes. Victim of wildfire.

10 Q. And does it list an immediate cause of death?

11 A. Yes. Fire-related injuries.

12 Q. And how was Mr. Brown identified?

13 A. He was identified by odontology.

14 Q. Going to Exhibit 865.

15 [Exhibit No. 865 was identified.]

16 BY MS. DUPRE-TOKOS:

17 Q. What is that death certificate for?

18 A. This is death certificate of Richard Brown.

19 Q. What is the case number listed on the death
20 certificate?

21 A. 18-19697.

22 Q. Is manner of death listed?

23 A. This one is pending.

24 Q. Would description of how the injury occurred and
25 immediate cause of death also be pending then?

26 A. Yes.

1 Q. Is there an amendment?

2 A. Yes.

3 Q. Does amendment list the manner of death?

4 A. Yes. As an accident.

5 Q. And does it give a description of how the injury
6 occurred?

7 A. Yes. Is a victim of wildfire.

8 Q. What's listed as immediate cause of death?

9 A. Fire-related injuries.

10 Q. And how was Mr. Brown identified?

11 A. He was identified by DNA.

12 Q. And Exhibit 866.

13 [Exhibit No. 866 was identified.]

14 BY MS. DUPRE-TOKOS:

15 Q. Whose -- what is Exhibit 866?

16 A. It's a death certificate for Andrew Burt.

17 Q. What is the case number listed on the death
18 certificate?

19 A. 18-19487.

20 Q. Does it list a manner of death on the death
21 certificate?

22 A. Yes. It's an --

23 Q. What is that?

24 A. -- accident.

25 Q. And does it give a description of how the injury
26 occurred?

1 A. Victim of wildfire.

2 Q. Does it list an immediate cause of death?

3 A. Yes. Fire-related injuries.

4 Q. And how was Mr. Burt identified?

5 A. He was identified by DNA.

6 Q. And when you say "DNA," is that the ANDE rapid
7 DNA that you discussed in your prior testimony?

8 A. Yes.

9 Q. And it's used by the FBI and other agencies and
10 courts?

11 A. Correct.

12 Q. And then let's go to Exhibit 867.

13 [Exhibit No. 867 was identified.]

14 BY MS. DUPRE-TOKOS:

15 Q. Would you tell us what 867 is?

16 A. It's a death certificate for Joanne Caddy.

17 Q. Does it list a case number on the death
18 certificate?

19 A. Yes, it's 18-19701.

20 Q. Does it list a manner of death?

21 A. It's pending.

22 Q. So description of how the injury occurred and
23 immediate cause of death would also be pending?

24 A. Yes.

25 Q. Is there an amendment attached?

26 A. Yes.

1 Q. And does the amendment list the manner of death?

2 A. Yes. Accident.

3 Q. Does it give a description of how the injury
4 occurred?

5 A. Yes. She's a victim of wildfire.

6 Q. And does it list the immediate cause of death?

7 A. Yes. Fire-related injuries.

8 Q. How was Ms. Caddy identified?

9 A. She was identified by DNA.

10 Q. And then Exhibit 868.

11 [Exhibit No. 868 was identified.]

12 BY MS. DUPRE-TOKOS:

13 Q. Can you tell us what that is?

14 A. Death certificate for Barbara Carlson.

15 Q. Does it list a case number on the death
16 certificate?

17 A. Yes. 18-19573.

18 Q. Does the death certificate list manner of death?

19 A. Yes. Accident.

20 Q. And does it list description of how the injury
21 occurred?

22 A. Yes. She's a victim of wildfire.

23 Q. Does it list an immediate cause of death?

24 A. Yes. Fire-related injuries.

25 Q. And how was Ms. Carlson identified?

26 A. She was identified by DNA.

1 Q. Going to Exhibit 869.

2 [Exhibit No. 869 was identified.]

3 BY MS. DUPRE-TOKOS:

4 Q. Could you tell us what that is?

5 A. It's a death certificate for Vincent Carota.

6 Q. And what is the case number listed on the death
7 certificate?

8 A. 18-19538.

9 Q. Does the death certificate list a manner of
10 death?

11 A. Yes. Accident.

12 Q. Does it give a description of how the injury
13 occurred?

14 A. Yes. He's a victim of wildfire.

15 Q. And does it list an immediate cause of death?

16 A. Yes. Fire-related injuries.

17 Q. And how was Mr. Carota identified?

18 A. He was identified by DNA.

19 Q. Going to Exhibit 870.

20 [Exhibit No. 870 was identified.]

21 BY MS. DUPRE-TOKOS:

22 Q. Could you tell us what that is?

23 A. It's a death certificate for Dennis Clark, Jr.

24 Q. And does it list a case number?

25 A. Yes. 18-19491.

26 Q. And does it list a manner of death?

1 A. Yes. Accident.

2 Q. Does it give a description of how the injury
3 occurred?

4 A. Yes. Victim of wildfire.

5 Q. And what does it list as immediate cause of
6 death?

7 A. Fire-related injuries.

8 Q. And how was Mr. Clark identified?

9 A. He was identified by DNA.

10 Q. So did Mr. Clark have an amendment?

11 A. Not that I'm aware of. Let's see. Oh, yes, he
12 does.

13 Q. What is the amendment?

14 A. So let's see what we amended. So he was found
15 with his mother, Joy Porter. So in order to establish
16 they were two people in two separate cases, it had to be
17 changed to Dennis Clark, Jr. and then his mother will have
18 a separate death certificate with a different case number.

19 Q. So what actually has changed in the amendment?

20 A. So let's see, space 31. Okay. So I apologize,
21 so looks like they put the -- the parent, which would have
22 been Joy Porter, here and it was changed to his father
23 Dennis Clark, Sr.

24 Q. And does that cover all of the amendments? It
25 looks like they were several.

26 A. Yes. So we changed that. Let's see what we did

1 on 35 and 36. Okay. So we changed the name of the
2 mother. It looks like we just kind of got the mother and
3 father kind of reversed. So that was all corrected there.

4 Q. Okay.

5 A. And then the mortuary was also changed.

6 Q. Okay. So when you say it got reversed, you put
7 the mother's information in the father's slot and the --

8 A. Correct.

9 Q. -- father's information in the mother's slot?

10 A. Yeah.

11 Q. So that had to be fixed via an amendment?

12 A. Yes.

13 Q. Okay. And I believe we already -- I already
14 asked, but how was Mr. Clark identified?

15 A. By DNA.

16 MR. NOEL: I think we have been going on about 45
17 minutes. This is very dry.

18 MS. DUPRE-TOKOS: Yes.

19 MR. NOEL: Emotionally, I think some of the jurors
20 are indicating they'd like a break.

21 GRAND JURY FOREPERSON: Okay. 10 minutes, 15?

22 MR. NOEL: Whatever they like.

23 GRAND JURY FOREPERSON: 15? Okay. 15 minutes.

24

25 [Recess taken from 10:29 until 10:45 a.m. whereupon the
26 grand jury comes to order in Courtroom 9.]

1 GRAND JURY FOREPERSON: All members of the grand jury
2 have returned from break, and we are ready to proceed.

3 BY MS. DUPRE-TOKOS:

4 Q. Okay. Ms. Celentano, looking at Exhibit 871, who
5 is that a death certificate for?

6 A. It's a death certificate for Evelyn Cline.

7 [Exhibit No. 871 was identified.]

8 BY MS. DUPRE-TOKOS:

9 Q. And what's the case number listed on the death
10 certificate?

11 A. 18-19733.

12 Q. And what is the listed manner of death?

13 A. Manner of death in this case is an accident.

14 Q. And what's the description of how the injury
15 occurred?

16 A. She's a victim of wildfire.

17 Q. What is listed as the immediate cause of death?

18 A. Fire-related injuries.

19 Q. And how was Ms. Cline identified?

20 A. She was identified circumstantially.

21 Q. And what were the -- what was the circumstantial
22 evidence that lead to her identification?

23 A. Again, in this case, anthropology took a really
24 close look at the remains and described it as an elderly
25 adult with a screw found in one of the bones. The victim
26 lived alone at that address, and the vehicle registered to

1 the victim was also located at that address.

2 Q. Okay. And then Exhibit 872.

3 [Exhibit No. 872 was identified.]

4 THE WITNESS: It's a death --

5 BY MS. DUPRE-TOKOS:

6 Q. What --

7 A. Sorry.

8 Q. It's okay. What is that document?

9 A. It's a death certificate for John Digby.

10 Q. And what is the case number listed on the death
11 certificate?

12 A. 18-19643.

13 Q. What's the listed manner of death?

14 A. Accident.

15 Q. And description of how the injury occur?

16 A. Victim of wildfire.

17 Q. What is listed as the immediate cause of death?

18 A. Fire-related injuries.

19 Q. How was Mr. Digby identified?

20 A. He was identified by anthropology.

21 Q. Can you explain a little bit to us to what that
22 would be?

23 A. So anthropologists take a look at the bones and
24 often humans have different kinds of variations to their
25 bones, and sometimes that's a good indicator of who that
26 person is.

1 So in this case, they got X-rays. They had
2 X-rays from a previous injury or something like that and
3 were able to match that up to the bones that they were
4 looking at.

5 Q. Okay. You're looking at Exhibit 873, what is
6 that.

7 A. It's a death certificate for Gordon Dise.

8 [Exhibit No. 873 was identified.]

9 BY MS. DUPRE-TOKOS:

10 Q. And what is the case number listed?

11 A. 18-19775.

12 Q. I just need one moment. What is the listed
13 manner of death?

14 A. Accident.

15 Q. And description of how the injury occurred?

16 A. Victim of wildfire.

17 Q. And what's the immediate cause of death?

18 A. Fire-related injuries.

19 Q. And is there an amendment for Mr. Dise?

20 A. Yes, there is.

21 Q. What's the amendment?

22 A. It looks like we corrected his Social Security
23 number.

24 Q. How was Mr. Dise identified?

25 A. He was identified by DNA.

26 Q. Okay. Exhibit 874.

1 [Exhibit No. 874 was identified.]

2 BY MS. DUPRE-TOKOS:

3 Q. What is that exhibit?

4 A. It's a death certificate for Paula Dodge.

5 Q. And what's the case number listed?

6 A. 18-19544.

7 Q. And is there a listed manner of death?

8 A. This one is pending.

9 Q. Okay. And so is description of the -- how the
10 injury occurred and the immediate cause of death also
11 pending?

12 A. Yes.

13 Q. Is there an amendment?

14 A. There is.

15 Q. And does the amendment list the manner of death?

16 A. Yes.

17 Q. What is that?

18 A. Accident.

19 Q. And does the amendment also list a description of
20 how the injury occurred?

21 A. Yes. Victim of wildfire.

22 Q. And does the amendment list the immediate cause
23 of death?

24 A. Fire-related injuries.

25 Q. And how was Ms. Dodge identified?

26 A. She was identified by odontology.

1 Q. And then Exhibit 875.

2 [Exhibit No. 875 was identified.]

3 THE WITNESS: It's a death certificate for Randall
4 Dodge.

5 BY MS. DUPRE-TOKOS:

6 Q. And what's the case number?

7 A. 18-19545.

8 Q. And does the death certificate list the manner of
9 death?

10 A. In this case, it's pending.

11 Q. And is description of how the injury occurred and
12 immediate cause of death also pending?

13 A. Yes.

14 Q. Is there an amendment?

15 A. Yes.

16 Q. And does the amendment list the manner of death?

17 A. Yes. It's an accident.

18 Q. And description of how the injury occurred?

19 A. It was a victim of wildfire.

20 Q. Immediate cause of death?

21 A. Fire-related injuries.

22 Q. And how Mr. Dodge identified?

23 A. He was identified by odontology.

24 Q. Okay. And Exhibit 876?

25 [Exhibit No. 876 was identified.]

26 THE WITNESS: It's a death certificate for Andrew

1 Downer.

2 BY MS. DUPRE-TOKOS:

3 Q. And what is the case number listed on the
4 certificate?

5 A. 18-19551.

6 Q. And does the certificate list manner of death?

7 A. Yes. It's an accident.

8 Q. And the description of how the injury occurred?

9 A. He's a victim of wildfire.

10 Q. And what is listed in the immediate cause of
11 death?

12 A. Fire-related injuries.

13 Q. And how was Mr. Downer identified?

14 A. He was identified by DNA.

15 Q. Exhibit 877.

16 [Exhibit No. 877 was identified.]

17 THE WITNESS: Death certificate for Robert Duvall.

18 BY MS. DUPRE-TOKOS:

19 Q. And what's the case number listed on the death
20 certificate?

21 A. 18-19489.

22 Q. And does the death certificate list the manner of
23 death?

24 A. Yes. Accident.

25 Q. Does it list the description of how the injury
26 occurred?

1 A. Yes. Victim of wildfire.

2 Q. And does it list immediate cause of death?

3 A. Yes. Fire-related injuries.

4 Q. And how was Mr. Duvall identified?

5 A. He was identified by DNA.

6 Q. Exhibit 878, I think it is.

7 A. Yes.

8 [Exhibit No. 878 was identified.]

9 BY MS. DUPRE-TOKOS:

10 Q. Who is that death certificate for?

11 A. Death certificate for Rose Farrell.

12 Q. And what's the listed case number?

13 A. 18-19665.

14 Q. Does the death certificate list a manner of
15 death?

16 A. Yes. Accident.

17 Q. Description of how the injury occurred?

18 A. She's a victim of wildfire.

19 Q. And immediate cause of death?

20 A. Fire-related injuries.

21 Q. How was Ms. Farrell identified?

22 A. She was identified by DNA.

23 Q. And Exhibit 879.

24 [Exhibit No. 879 was identified.]

25 THE WITNESS: Is a death certificate for Jesus
26 Fernandez.

1 BY MS. DUPRE-TOKOS:

2 Q. And what's the listed case number?

3 A. 18-19563.

4 Q. And does it list the manner of death?

5 A. This one is pending.

6 Q. So are the spaces for description of how the
7 injury occurred and immediate cause of death also pending?

8 A. Yes.

9 Q. Is there an amendment?

10 A. Yes.

11 Q. And does that amendment list the manner of death?

12 A. Yes. Accident.

13 Q. Does it list description of how the injury
14 occurred?

15 A. Yes. He's a victim of wildfire.

16 Q. And does it list the immediate cause of death?

17 A. Fire-related injuries.

18 Q. And how was Mr. Fernandez identified?

19 A. He was identified by fingerprints.

20 Q. And then Exhibit 880.

21 [Exhibit No. 880 was identified.]

22 THE WITNESS: Is a death certificate for Jean
23 Forsman.

24 BY MS. DUPRE-TOKOS:

25 Q. And what's the listed case number?

26 A. 18-19947.

1 Q. And does it list a manner of death?

2 A. Yes. Accident.

3 Q. Does it list description of how the injury
4 occurred?

5 A. Yes. She's a victim of wildfire.

6 Q. Does it list immediate cause of death?

7 A. Yes. Fire-related injuries.

8 Q. And how was Ms. Forsman identified?

9 A. She was identified by DNA.

10 Q. If I can have one moment. And then going to
11 Exhibit 881.

12 [Exhibit No. 881 was identified.]

13 THE WITNESS: It's a death certificate for Ernest
14 Foss, Jr.

15 BY MS. DUPRE-TOKOS:

16 Q. And what is the listed case number on the death
17 certificate?

18 A. 18-19487.

19 Q. Okay. And to your knowledge, is that the correct
20 case number?

21 A. No.

22 Q. So what happens in a situation such as this where
23 the incorrect case number is listed on the death
24 certificate?

25 A. An amendment is created to correct that.

26 Q. How long does that normally take?

1 A. Depends on when we catch it. It doesn't take
2 long, just has to be approved.

3 Q. Okay. So it gets approved by whom?

4 A. By the chief deputy coroner, and then by the
5 state registrar.

6 Q. Okay. So in Mr. Foss's case, are you aware if an
7 amendment was signed by the chief deputy coroner?

8 A. Yes.

9 Q. Okay. And have we received an amendment from --
10 an approved amendment from the state?

11 A. It doesn't look like on this amendment that it
12 has been changed yet. We are currently working on that.

13 Q. Okay. So on the death certificate in front of
14 you for Mr. Foss, does that list a manner of death?

15 A. It's pending.

16 Q. Okay. And so is there already an amendment
17 attached to that death certificate for Mr. Foss?

18 A. Yes.

19 Q. And does that amendment list a manner of death?

20 A. Yes. Accident.

21 Q. And does that amendment list in the description
22 of how the injury occurred?

23 A. He was a victim of wildfire.

24 Q. And does it list immediate cause of death?

25 A. Fire-related injuries.

26 Q. Now, when the amendment is approved by the state

1 with the corrected case number, will there then be a
2 second amendment page?

3 A. Yes.

4 Q. Okay.

5 A. There'll be an additional amendment page.

6 Q. And then how was Mr. Foss identified, if you
7 recall?

8 A. I believe he was identified by fingerprints and
9 DNA. We did secondary on almost all victims.

10 Q. Okay. Exhibit 862 -- or 882.

11 A. 882.

12 [Exhibit No. 882 was identified.]

13 THE WITNESS: Is a death certificate for Elizabeth
14 Gaal.

15 BY MS. DUPRE-TOKOS:

16 Q. What is the case number listed on the death
17 certificate?

18 A. 18-19680.

19 Q. And does it list -- does her death certificate
20 list manner of death?

21 A. This one is pending.

22 Q. Okay. Is there an amendment attached?

23 A. Yes.

24 Q. And does that amendment list the manner of death?

25 A. Yes. Accident.

26 Q. Does the amendment list description of how the

1 injury occurred?

2 A. Yes. She's a victim of wildfire.

3 Q. And does the amendment list the immediate cause
4 of death?

5 A. Fire-related injuries.

6 Q. And how was Ms. Gaal identified?

7 A. She was identified by odontology.

8 Q. And Exhibit 883.

9 [Exhibit No. 883 was identified.]

10 HE WITNESS: It's a death certificate for Sally
11 Gamboa.

12 Q. And what is the listed case number?

13 A. 18-19535.

14 Q. And is the manner of death listed?

15 A. Yes. Accident.

16 Q. What about description of how the injury
17 occurred?

18 A. Yes. She's a victim of wildfire.

19 Q. And immediate cause of death?

20 A. Fire-related injuries.

21 Q. Now, is there an amendment for Ms. Gamboa's death
22 certificate?

23 A. Yes.

24 Q. And what was corrected?

25 A. Her Social Security number was corrected.

26 Q. How was Ms. Gamboa identified?

1 A. She was identified by fingerprints.

2 Q. Going to Exhibit 884.

3 [Exhibit No. 884 was identified.]

4 THE WITNESS: It's a death certificate for James
5 Garner.

6 Q. And what's the listed case number?

7 A. 18-19550.

8 Q. Is a manner of death listed?

9 A. Yes. Accident.

10 Q. And what about description of how the injury
11 occurred?

12 A. Yes. He's a victim of wildfire.

13 Q. And immediate cause of death?

14 A. Fire-related injuries.

15 Q. Is there an amendment for Mr. Garner's death
16 certificate?

17 A. Yes.

18 Q. What was corrected?

19 A. His Social Security number was corrected.

20 Q. Okay. And how was Mr. Garner identified?

21 A. He was identified by DNA.

22 Q. Okay. Exhibit 885.

23 [Exhibit No. 885 was identified.]

24 THE WITNESS: Is a death certificate for Richard
25 Garrett.

26 ///

1 BY MS. DUPRE-TOKOS:

2 Q. And what's the listed case number?

3 A. 18-19753.

4 Q. And is a manner of death listed?

5 A. Yes. Accident.

6 Q. And what about description of how the injury
7 occurred?

8 A. Yes, he's victim of wildfire.

9 Q. And immediate cause of death?

10 A. Is fire-related injuries.

11 Q. And how was Mr. Garrett identified?

12 A. He was identified by DNA.

13 Q. And Exhibit 886.

14 [Exhibit No. 886 was identified.]

15 THE WITNESS: Is a death certificate for William
16 Godbout.

17 BY MS. DUPRE-TOKOS:

18 Q. And what is the listed case number?

19 A. 18-19531.

20 Q. Is a manner of death listed?

21 A. Yes. Accident.

22 Q. What is description of how the injury occurred?

23 A. He's a victim of wildfire.

24 Q. And what's listed as the immediate cause of
25 death?

26 A. Fire-related injuries.

1 Q. And how was Mr. Godbout identified, if you
2 recall?

3 A. I believe Mr. Godbout was also identified by DNA.

4 Q. And Exhibit 887.

5 [Exhibit No. 887 was identified.]

6 THE WITNESS: Is a death certificate for Shirley
7 Haley.

8 BY MS. DUPRE-TOKOS:

9 Q. What is the listed case number?

10 A. 18-19566.

11 Q. And is a manner of death listed?

12 A. Yes. Accident.

13 Q. And is a description of how the injury occurred
14 listed?

15 A. Yes. She's a victim of wildfire.

16 Q. And what's listed as the immediate cause of
17 death?

18 A. Fire-related injuries.

19 Q. And how was Ms. Haley identified?

20 A. She was identified circumstantially. She was
21 found co-mingled with her sister, Barbara Carlson, who was
22 identified by DNA. They lived at the same address and we
23 have information from the family that they had talked to
24 Barbara that day and Shirley was there with her.

25 Q. And were her remains also examined by an
26 anthropologist?

1 A. Yes.

2 Q. And Exhibit 886.

3 MR. NOEL: Should be 888.

4 THE WITNESS: Yeah.

5 MS. DUPRE-TOKOS: Sorry, it's hard for me to see it
6 on there. 888.

7 [Exhibit No. 888 was identified.]

8 THE WITNESS: Exhibit 888 is a death certificate for
9 Dennis Hanko.

10 BY MS. DUPRE-TOKOS:

11 Q. What's the listed case number?

12 A. 18-19647.

13 Q. And is a manner of death listed?

14 A. Yes. Accident.

15 Q. And is there a description of how the injury
16 occurred?

17 A. Yes. He's a victim of wildfire.

18 Q. And what's listed as the immediate cause of
19 death?

20 A. Fire-related injuries.

21 Q. Is there an amendment for Mr. Hanko?

22 A. Yes.

23 Q. And what was corrected?

24 A. It looks like line 20. So the residence was
25 changed. You could see there they added an "A" to the
26 address, it was number 3A. Line 26 was changed, which is

1 the -- gosh, these are so hard to read. The informant was
2 changed to his sister and her address was added and it
3 looks like they also changed mortuaries.

4 Q. And how was Mr. Hanko identified?

5 A. He was identified by DNA.

6 Q. And then Exhibit 889.

7 [Exhibit No. 889 was identified.]

8 THE WITNESS: It's a death certificate for Anna
9 Hastings.

10 BY MS. DUPRE-TOKOS:

11 Q. And what's the listed case number?

12 A. 18-19655.

13 Q. And is a manner of death listed?

14 A. Yes. Accident.

15 Q. What's the description of how the injury
16 occurred?

17 A. She's a victim of wildfire.

18 Q. And what was listed as the immediate cause of
19 death?

20 A. Fire-related injuries.

21 Q. And how was Ms. Hastings identified?

22 A. She was identified by DNA.

23 Q. And Exhibit 890.

24 [Exhibit No. 890 was identified.]

25 THE WITNESS: Is a death certificate for Jennifer
26 Hayes.

1 BY MS. DUPRE-TOKOS:

2 Q. And what's the listed case number?

3 A. 18-19735.

4 Q. And is a manner of death listed?

5 A. Yes. It was an accident.

6 Q. And is there a description of how the injury
7 occurred?

8 A. Yes. She's a victim of wildfire.

9 Q. And what's listed as the immediate cause of
10 death?

11 A. Fire-related injuries.

12 Q. How was Ms. Hayes identified?

13 A. She was identified by odontology.

14 Q. And then Exhibit 891.

15 [Exhibit No. 891 was identified.]

16 THE WITNESS: This is a death certificate for
17 Christina Heffern.

18 Q. And what is the listed case number?

19 A. 18-19604.

20 Q. Is a manner of death listed?

21 A. Yes. Accident.

22 Q. And what is the description of how the injury
23 occurred?

24 A. She's a victim of wildfire.

25 Q. And what's listed as the immediate cause of
26 death?

1 A. Fire-related injuries.

2 Q. And how was Ms. Christina Heffern identified?

3 A. She was identified by DNA.

4 Q. Exhibit 892.

5 [Exhibit No. 892 was identified.]

6 THE WITNESS: This is a death certificate for Ishka
7 Heffern.

8 Q. What's the listed case number?

9 A. 18-19605.

10 Q. And is a manner of death listed?

11 A. Yes. Accident.

12 Q. And is there a description of how the injury
13 occurred?

14 A. Yes. She's a victim of wildfire.

15 Q. And what's listed as the immediate cause of
16 death?

17 A. Fire-related injuries.

18 Q. And then how was Ms. Ishka Heffern identified?

19 A. Ishka and her mother Christina and her
20 grandmother were all found co-mingled together at their
21 residence. And anthropology described this particular set
22 of remains as a young female victim, and there's also 911
23 calls that place her at that residence.

24 Q. And then Exhibit 893.

25 [Exhibit No. 893 was identified.]

26 THE WITNESS: It's a death certificate for a Matilde

1 Heffern.

2 BY MS. DUPRE-TOKOS:

3 Q. And what is the listed case number?

4 A. 18-19967.

5 Q. And is a manner of death listed?

6 A. Yes. Accident.

7 Q. And what is description of how the injury
8 occurred?

9 A. She's a victim of wildfire.

10 Q. And what's listed as the immediate cause of
11 death?

12 A. Fire-related injuries.

13 Q. And how was Ms. Matilde Heffern identified?

14 A. She was co-mingled with her daughter and her
15 granddaughter at the house -- home where she should have
16 been. Anthropology had those set of remains as a female
17 adult and we also have the 911 call that places her at the
18 residence.

19 Q. Exhibit 894.

20 [Exhibit No. 894 was identified.]

21 THE WITNESS: Is a death certificate for Louis
22 Herrera.

23 BY MS. DUPRE-TOKOS:

24 Q. What's the listed case number?

25 A. 18-19672.

26 Q. And what's -- is there a manner of death listed?

1 A. Yes. Accident.

2 Q. What's the description of how the injury
3 occurred?

4 A. He's a victim of wildfire.

5 Q. And what's listed as the immediate cause of
6 death?

7 A. Fire-related injuries.

8 Q. And how was Mr. Herrera identified?

9 A. He was identified by DNA.

10 Q. And Exhibit 895.

11 [Exhibit No. 895 was identified.]

12 THE WITNESS: Is a death certificate for Evva Holt.

13 BY MS. DUPRE-TOKOS:

14 Q. What's the listed case number?

15 A. 18-19702.

16 Q. And is there a manner of death listed?

17 A. Yes. Accident.

18 Q. What's the description of how the injury
19 occurred?

20 A. She's a victim of wildfire.

21 Q. And what's listed as the immediate cause of
22 death?

23 A. Fire-related injuries.

24 Q. And how was Ms. Holt identified?

25 A. DNA.

26 Q. Okay. And Exhibit 896.

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[Exhibit No. 896 was identified.]

THE WITNESS: Is a death certificate for TK Huff.

Q. What's the listed case number?

A. 18-19586.

Q. Is there a manner of death listed?

A. Yes. Accident.

Q. And is there a description of how the injury occurred?

A. Yes. He's a victim of wildfire.

Q. And what's listed as the immediate cause of death?

A. Fire-related injuries.

Q. And how was Mr. Huff identified?

A. He was identified by DNA.

Q. Okay. Exhibit 897.

[Exhibit No. 897 was identified.]

THE WITNESS: Is a death -- excuse me, death certificate for Gary Hunter.

Q. What's the listed case number?

A. 18-19737.

Q. Is a manner of death listed?

A. Yes. Accident.

Q. And is there a description of how the injury occurred?

A. Yes. He was a victim of wildfire.

Q. What's listed as the immediate cause of death?

1 A. Fire-related injuries.

2 Q. And how was Mr. Hunter identified?

3 A. He was identified by DNA.

4 Q. Exhibit 898.

5 [Exhibit No. 898 was identified.]

6 THE WITNESS: Death certificate for James Kinner.

7 BY MS. DUPRE-TOKOS:

8 Q. What's the listed case number?

9 A. 18-19755.

10 Q. And is a manner of death listed?

11 A. Yes. Accident.

12 Q. And description of how the injury occurred?

13 A. He's a victim of wildfire.

14 Q. And immediate cause of death?

15 A. Fire -- excuse me, fire-related injuries.

16 Q. Is there an amendment for Mr. Kinner's death
17 certificate?

18 A. Yes.

19 Q. Is there one or two?

20 A. There are two.

21 Q. Okay. What does the first one amend?

22 A. The first one looks like we didn't really have
23 any information for Mr. Kinner, and so we added all the
24 additional information that was required.

25 Q. Is that, like, his personal identifying
26 information or?

1 A. Yeah, it looks like they added -- oh, wait that's
2 not the same one I am looking at.

3 Q. I think have my pages backwards. There we go,
4 sorry.

5 A. Okay. So the first one, line nine -- yeah, it's
6 just demographic information. It looks like on the death
7 certificate, we didn't have his birth state, any -- any
8 information for next-of-kin. So the first amendment is
9 adding -- what is line -- his middle name. Adding that he
10 was divorced. He has a high school diploma. That he's
11 Caucasian, added his occupation. And then 27 -- 27
12 added -- was his informant's mailing address. 32, it
13 looks like then we got next-of-kin information and that
14 was added as well.

15 Q. And then on the second amendment, what was
16 corrected?

17 A. So 36, looks like a middle name was added for
18 a -- the spouse or parent, and then the mortuary was also
19 changed.

20 Q. And how was Mr. Kinner identified?

21 A. Mr. Kinner was identified by his -- a serial
22 number that we found on hardware in his knee, and we were
23 able to get that number off and figure out who that
24 prosthetic belonged to and it was Mr. James Kinner.

25 Q. And how do you figure something like that out?

26 A. It's -- it's really difficult actually. So we

1 have to call around to several different companies that
2 make the prosthetic. So you have to figure out what type
3 it is first, then you have to contact each company. Some
4 companies gave push back, but we were able to get all the
5 information we needed. And I think there are three cases
6 where we identified them by hardware.

7 Q. Going to Exhibit 899.

8 [Exhibit No. 899 was identified.]

9 THE WITNESS: It's a death certificate for Dorothy
10 Lee-Herrera.

11 BY MS. DUPRE-TOKOS:

12 Q. What's the listed case number?

13 A. 18-19949.

14 Q. And is there a listed manner of death?

15 A. Yes. Accident.

16 Q. And description of how the injury occurred?

17 A. Yes. She's a victim of wildfire.

18 Q. And immediate cause of death?

19 A. Fire-related injuries.

20 Q. And how was Ms. Lee-Herrera identified?

21 A. She was identified by odontology.

22 Q. Okay. And going to Exhibit 900.

23 [Exhibit No. 900 was identified.]

24 THE WITNESS: It's a death certificate for Warren
25 Lessard.

26 ///

1 BY MS. DUPRE-TOKOS:

2 Q. And what's the listed case number?

3 A. 18-19809.

4 Q. Is there a listed manner of death?

5 A. Yes. Accident.

6 Q. And a description of how the injury occurred?

7 A. Yes, he's a victim of wildfire.

8 Q. And immediate cause of death?

9 A. Fire-related injuries.

10 Q. And how was Mr. Lessard identified?

11 A. He was identified by DNA.

12 Q. Okay. Going to Exhibit 901.

13 [Exhibit No. 901 was identified.]

14 THE WITNESS: This is a death certificate for Dorothy
15 Mack.

16 BY MS. DUPRE-TOKOS:

17 Q. And what's the listed case number?

18 A. 18-19812.

19 Q. And is there a listed manner of death?

20 A. Yes. Accident.

21 Q. And a description of how the injury occurred?

22 A. Yes, she's a victim of wildfire.

23 Q. What's listed as the immediate cause of death?

24 A. Fire-related injuries.

25 Q. And how was Ms. Mack identified?

26 A. She was identified by DNA.

1 Q. And Exhibit 902.

2 [Exhibit No. 902 was identified.]

3 THE WITNESS: It's a death certificate for Sara
4 Magnuson.

5 BY MS. DUPRE-TOKOS:

6 Q. What's the listed case number?

7 A. 18-19727.

8 Q. And is there a manner of death listed?

9 A. Yes. Accident.

10 Q. And is there a description of how the injury
11 occurred?

12 A. Yes. She's a victim of wildfire.

13 Q. And is there an immediate cause of death listed?

14 A. Yes. Fire-related injuries.

15 Q. Is there an amendment for Ms. Magnuson?

16 A. Yes.

17 Q. What does that correct?

18 A. That corrected her next-of-kin from George
19 Magnuson to George Randall.

20 Q. And how was Ms. Magnuson identified?

21 A. She was identified by DNA.

22 Q. And going to Exhibit 903.

23 [Exhibit No. 903 was identified.]

24 THE WITNESS: It's a death certificate for Dolores
25 Malarkey.

26 ///

1 BY MS. DUPRE-TOKOS:

2 Q. What's the listed case number?

3 A. 18-19596.

4 Q. Now, on the death certificate, the name is
5 listed, correct?

6 A. Yes.

7 Q. Is there also a spot for AKA?

8 A. Yes.

9 Q. And you testified previously that the name and
10 AKA information is provided by the family?

11 A. Correct.

12 Q. So do they have to give the birth name or can
13 they give what the person goes by or how does that work?

14 A. Yes, they can put any name that they like. It
15 does not have to go by their birth name or their driver's
16 license.

17 Q. Okay. Is there an AKA listed for Dolores
18 Malarkey?

19 A. Yes. Joanne Malarkey.

20 Q. And is it your understanding that Ms. Malarkey
21 went by Joanne?

22 A. Yes.

23 Q. Is there a manner of death listed on her death
24 certificate?

25 A. This one is pending.

26 Q. Okay. So I assume that the description of how

1 the injury occurred and the immediate cause of death are
2 also pending?

3 A. Yes.

4 Q. Is there an amendment?

5 A. Yes.

6 Q. And does the amendment list the manner of death?

7 A. Yes. Accident.

8 Q. Does the amendment list a description of how the
9 injury occurred?

10 A. Yes. She's a victim of wildfire.

11 Q. And does it list an immediate cause of death?

12 A. Yes. Fire-related injuries.

13 Q. And how was Ms. Malarkey identified?

14 A. She was identified by odontology.

15 Q. And going to Exhibit 904.

16 [Exhibit No. 904 was identified.]

17 THE WITNESS: It's a death certificate for John
18 Malarkey.

19 BY MS. DUPRE-TOKOS:

20 Q. What's the listed case number?

21 A. 18-19594.

22 Q. Is Mr. Malarkey's death certificate complete or
23 is there an amendment?

24 A. There's an amendment.

25 Q. So is the manner of death pending?

26 A. Yes.

1 Q. Okay. And the related questions for description
2 of the injuries and immediate cause of death, are they
3 also pending?

4 A. Yes.

5 Q. Does the amendment update that?

6 A. Yes.

7 Q. Could you tell us what the listed manner of death
8 is on the amendment?

9 A. Accident.

10 Q. And description of how the injury occurred?

11 A. Victim of wildfire.

12 Q. Immediate cause of death?

13 A. Fire-related injuries.

14 Q. And how was Mr. Malarkey identified?

15 A. He was identified by odontology.

16 Q. Exhibit 905.

17 [Exhibit No. 905 was identified.]

18 THE WITNESS: Is a death certificate for Chris
19 Maltby.

20 BY MS. DUPRE-TOKOS:

21 Q. What is the listed case number?

22 A. 18-19732.

23 Q. And is there a manner of death listed?

24 A. Yes. Accident.

25 Q. And is there a description of how the injury
26 occurred?

1 A. Yes. He's a victim of wildfire.

2 Q. And what is listed as the immediate cause of
3 death?

4 A. Fire-related injuries.

5 Q. And then how was Mr. Maltby identified?

6 A. He was identified by hardware as well. So the
7 medical implant in his shoulder had a serial number on it,
8 and that's how we identified him.

9 Q. Okay. Exhibit 906.

10 [Exhibit No. 906 was identified.]

11 THE WITNESS: It's a death certificate for David
12 Marbury.

13 BY MS. DUPRE-TOKOS:

14 Q. And what's the listed case number?

15 A. 18-19868.

16 Q. And does that death certificate list a manner of
17 death?

18 A. Yes. Accident.

19 Q. Does it give a description of how the injury
20 occurred?

21 A. Yes. He's a victim of wildfire.

22 Q. And does it list an immediate cause of death?

23 A. Yes. Fire-related injuries.

24 Q. And how was Mr. Marbury identified?

25 A. He was identified by DNA.

26 Q. And Exhibit 907.

1 [Exhibit No. 907 was identified.]

2 THE WITNESS: Is a death certificate for Deborah
3 Morningstar.

4 BY MS. DUPRE-TOKOS:

5 Q. And what's the listed case number?

6 A. 18-19534.

7 Q. And is there a manner of death listed?

8 A. This one is pending.

9 Q. So is the immediate cause of death and the
10 description of how the injury occurred also pending?

11 A. Yes.

12 Q. Is there an amendment?

13 A. Yes.

14 Q. And does that amendment list a manner of death?

15 A. Yes. Accident.

16 Q. Does it give a description of how the injury
17 occurred?

18 A. He was a victim of wildfire.

19 Q. And is the immediate cause of death listed?

20 A. Fire-related injuries.

21 Q. And how was Ms. Morningstar identified?

22 A. She was identified by DNA.

23 Q. Going to Exhibit 908.

24 [Exhibit No. 908 was identified.]

25 THE WITNESS: That is a death certificate for Helen
26 Pace.

1 BY MS. DUPRE-TOKOS:

2 Q. And what's the listed case number?

3 A. 18-19760.

4 Q. And does that death certificate list a manner of
5 death?

6 A. Yes. Accident.

7 Q. Does it give a description of how the injury
8 occurred?

9 A. Yes. She was a victim of wildfire.

10 Q. And what does it list as an immediate cause of
11 death?

12 A. Fire-related injuries.

13 Q. And how was Ms. Pace identified?

14 A. She was identified by DNA.

15 Q. Exhibit 909.

16 [Exhibit No. 909 was identified.]

17 THE WITNESS: Is a death certificate for Joy Porter.

18 BY MS. DUPRE-TOKOS:

19 Q. And what's the case number listed on the death
20 certificate?

21 A. 18-19490.

22 Q. And does that death certificate list a manner of
23 death?

24 A. Yes. Accident.

25 Q. And does it give a description of how the injury
26 occurred?

1 A. Yes. She's a victim of wildfire.

2 Q. And what's listed as the immediate cause of
3 death?

4 A. Fire-related injuries.

5 Q. Is there an amendment to Ms. Porter's death
6 certificate?

7 A. Yes.

8 Q. And what does that correct?

9 A. It corrected her Social Security number.

10 Q. Okay. And how was Ms. Porter identified?

11 A. She was identified by DNA.

12 Q. And then Exhibit 910.

13 [Exhibit No. 910 was identified.]

14 THE WITNESS: Is a death certificate for Beverly
15 Powers.

16 BY MS. DUPRE-TOKOS:

17 Q. And what's the listed case number on the death
18 certificate?

19 A. 18-19488.

20 Q. And is a manner of death listed?

21 A. Yes. Accident.

22 Q. And is there a description of how the injury
23 occurred?

24 A. Yes. She's a victim of wildfire.

25 Q. And what's listed as the immediate cause of
26 death?

1 A. Fire-related injuries.

2 Q. And how was Ms. Powers identified?

3 A. She's identified by DNA.

4 Q. And Exhibit 911.

5 [Exhibit No. 911 was identified.]

6 THE WITNESS: It's a death certificate for Robert
7 Quinn.

8 BY MS. DUPRE-TOKOS:

9 Q. What's the listed case number?

10 A. 18-19568.

11 Q. And does that death certificate list a manner of
12 death?

13 A. Yes. Accident.

14 Q. And does it give a description of how the injury
15 occurred?

16 A. Yes. Victim of wildfire.

17 Q. What's listed as the immediate cause of death?

18 A. Fire-related injuries.

19 Q. And how was Mr. Quinn identified?

20 A. He was identified by odontology and DNA.

21 Q. And then Exhibit 912.

22 [Exhibit No. 912 was identified.]

23 THE WITNESS: It's a death certificate for Joseph
24 Rabetoy.

25 BY MS. DUPRE-TOKOS:

26 Q. And what's the case number that's listed on the

1 death certificate?

2 A. 18-19543.

3 Q. Does it list a manner of death?

4 A. This one is pending.

5 Q. Okay. Would description of how the injury
6 occurred and immediate cause of death also be pending?

7 A. Yes.

8 Q. And is there an amendment?

9 A. Yes.

10 Q. Does that amendment list a manner of death?

11 A. Yes. Accident.

12 Q. And does the amend -- amendment give a
13 description of how the injury occurred?

14 A. Yes. He was a victim of wildfire.

15 Q. And does the amendment list an immediate cause of
16 death?

17 A. Fire-related injuries.

18 Q. And how was Mr. Rabetoy identified?

19 A. He was identified by odontology.

20 Q. And then exit 913.

21 [Exhibit No. 913 was identified.]

22 THE WITNESS: It's a death certificate for Forrest
23 Rae.

24 BY MS. DUPRE-TOKOS:

25 Q. And what's the listed case number?

26 A. 18-19530.

1 Q. Does Mr. Rae's death certificate list a manner of
2 death?

3 A. Yes. Accident.

4 Q. Does it give a description of how the injury
5 occurred?

6 A. Yes. He's a victim of wildfire.

7 Q. And does it list an immediate cause of death?

8 A. Yes. Fire-related injuries.

9 Q. And is there an amendment for Mr. Rae?

10 A. Yes.

11 Q. What was corrected?

12 A. It looks like line 33 was corrected, which is the
13 parent -- the last name was added of Rae.

14 Q. And how was Mr. Rae identified?

15 A. He was identified by DNA.

16 Q. Going to Exhibit 914?

17 [Exhibit No. 914 was identified.]

18 THE WITNESS: It's a death certificate for Vernice
19 Regan.

20 BY MS. DUPRE-TOKOS:

21 Q. And what's the listed case number?

22 A. 18-19540.

23 Q. And does this death certificate list a manner of
24 death?

25 A. This one is pending.

26 Q. So would description of how the injury occurred

1 and immediate cause of death also be pending?

2 A. Yes.

3 Q. Is there an amendment?

4 A. Yes.

5 Q. How many?

6 A. There are two.

7 Q. On the first amendment, what was changed?

8 A. Her name was spelled correctly.

9 Q. Okay. And then on the second amendment, does
10 that list a manner of death?

11 A. Yes. Accident.

12 Q. Does it list a description of how the injury
13 occurred?

14 A. Yes. She was a victim of wildfire.

15 Q. What is listed as the immediate cause of death?

16 A. Fire-related injuries.

17 Q. And how was Ms. Regan identified?

18 A. She was identified by DNA.

19 Q. And Exhibit 915.

20 [Exhibit No. 915 was identified.]

21 THE WITNESS: It's a death certificate for Ethel
22 Riggs.

23 BY MS. DUPRE-TOKOS:

24 Q. And what's the case number listed on the death
25 certificate?

26 A. 18-19730.

1 Q. And is there a manner of death listed on the date
2 of death certificate?

3 A. Yes. Accident.

4 Q. And what's the description of how the injury
5 occurred?

6 A. She's a victim of wildfire.

7 Q. What's listed as the immediate cause of death?

8 A. Fire-related injuries.

9 Q. And how was Ms. Riggs identified?

10 A. She was identified by circumstantial evidence.
11 We had conversation with her grandson where she said she
12 had -- I guess, he had spoke with her that day, and she
13 had no power and she couldn't open the garage door. This
14 was a case where she was trapped and couldn't get out.
15 She was not strong enough the lift the door.

16 Q. And you said she had a conversation with her
17 grandson?

18 A. Yes.

19 Q. And then going to Exhibit 916.

20 [Exhibit No. 916 was identified.]

21 THE WITNESS: It's a death certificate for Lolene
22 Rios.

23 BY MS. DUPRE-TOKOS:

24 Q. And what's the listed case number?

25 A. 18-19542.

26 Q. And is there a listed manner of death?

1 A. This one is pending.

2 Q. So is description of how the injury occurred and
3 immediate cause of death also pending?

4 A. Yes.

5 Q. Is there an amendment?

6 A. Yes.

7 Q. Does that amendment list a manner of death?

8 A. Yes. Accident.

9 Q. Does the amendment include a description of how
10 the injury occurred?

11 A. Yes. She was a victim of wildfire.

12 Q. And does the amendment also include an immediate
13 cause of death?

14 A. Yes. Fire-related injuries.

15 Q. And how was Ms. Rios identified?

16 A. She was identified by fingerprints and DNA.

17 GRAND JURY FOREPERSON: Can we get a break?

18 MS. DUPRE-TOKOS: I think we need to take about a 5
19 or 10-minute break.

20 GRAND JURY FOREPERSON: Five minutes? Okay. Five
21 minutes.

22

23 [Recess taken from 11:24 until 11:35 a.m. whereupon the
24 grand jury comes to order in Courtroom 9.]

25

26 GRAND JURY FOREPERSON: All members of the grand jury

1 have returned from break, and we're ready to proceed.

2 MR. NOEL: All right. Before we get started. Right
3 before the break, your heard Ms. Celentano testify about
4 the grandson having a conversation with his grandmother
5 and her being trapped and not being able to get out. We
6 have gone over this, God only knows how many times over
7 the last 11 months. Those statements are hearsay, and you
8 are not to consider those statements for any purpose
9 unless and until, for instance, the grandson would come in
10 and testify to that. So if the grandson comes in and
11 testifies and confirms that, you can consider that
12 evidence, otherwise, you cannot consider those statements
13 at all.

14 And second thing I meant to talk -- do this
15 morning before we started, we're taking a lot of breaks
16 this morning. This is very difficult evidence to go
17 through. We're trying to make it as easy and unemotional
18 as possible for you. But, obviously, you can't take all
19 the emotion out of it. We had this conversation last week
20 on Friday and now that we're hearing the evidence, the
21 death evidence and emotions are coming up. And some of
22 you have emotional reactions to some of the evidence, the
23 witnesses have emotional reactions to some of the
24 evidence. That is natural. We're human. This is
25 emotional stuff. We're talking about people dying. We're
26 talking about destruction. We're talking about mass

1 casualties of that on a completely different level from
2 any other. Emotion is expected. It's okay to feel the
3 emotion, but we can't allow the emotion to effect decision
4 making in the end.

5 After our conversation last week, I was trying
6 to -- to think about it and how to explain it to you. And
7 our boss, Mr. Ramsey is a -- believe it or not, a diehard
8 trekky. He is a devotee of the original William Shatner,
9 Leonard Nimoy, Star Trek. And he has Star Trek
10 memorabilia all over his office. Including, he has a
11 photo with himself photoshopped into the crew of Starship
12 Enterprise, and he has his phaser on his desk.

13 Why this is all relevant is looking at this and
14 made me think, a -- in Star Trek, you had Captain Kirk who
15 was the emotional human being and everything was emotion
16 and he was constantly mad and very animated, and then you
17 had Leonard Nimoy and that was Spock and he was completely
18 unemotional and, you know, completely logical with
19 everything. And kind of two sides of humanity. And what
20 we need in here is -- it's okay in here right now for you
21 guys to be a bunch of Captain Kirks, for you to be
22 emotional, for you the get angry, for you to get upset as
23 this evidence is coming in. But once it comes time to
24 make a decision, once it comes time to be in
25 deliberations, you guys all have to be Mr. Spock. Emotion
26 cannot play any role in the decisions that you make. It's

1 got to be simple logic. Here's the law. Here is the
2 evidence. Does the evidence match the law? If it does,
3 one decision. If it doesn't, another decision.

4 So don't feel bad about the emotion now. It's
5 only when we get down to the end, that's where you got to
6 take the emotion out of play.

7 All right. I know we keep checking on you guys
8 to make sure. This is -- this is tough no matter how hard
9 we try to make this as easy as possible, it's still tough
10 stuff.

11 All right. Everybody doing okay?

12 GRAND JURY FOREPERSON: Okay.

13 MS. DUPRE-TOKOS: You ready?

14 THE WITNESS: Yeah.

15 MR. NOEL: Yep.

16 BY MS. DUPRE-TOKOS:

17 Q. Okay. Exhibit 917.

18 [Exhibit No. 917 was identified.]

19 THE WITNESS: Is a death certificate for Gerald
20 Rodrigues.

21 Q. And what's that listed case number?

22 A. 18-19562.

23 Q. And does it list a manner of death?

24 A. Yes. Accident.

25 Q. What is the description of how the injury
26 occurred?

1 A. He's a victim of wildfire.

2 Q. And what's listed as the immediate cause of
3 death?

4 A. Fire-related injuries.

5 Q. And how was Mr. Rodrigues identified?

6 A. He was identified by DNA.

7 Q. And Exhibit 918.

8 [Exhibit No. 918 was identified.]

9 THE WITNESS: It's a death certificate for Frederick
10 Salazar.

11 BY MS. DUPRE-TOKOS:

12 Q. What's the case number listed on death
13 certificate?

14 A. 18-19617.

15 Q. And is a manner of death listed?

16 A. Yes. Accident.

17 Q. What's the description of how the injury
18 occurred?

19 A. He was a victim of wildfire.

20 Q. What is listed as the immediate cause of death?

21 A. Fire-related injuries.

22 Q. And how was Mr. Salazar identified?

23 A. He was identified by odontology.

24 Q. And Exhibit 919.

25 [Exhibit No. 919 was identified.]

26 THE WITNESS: It's a death certificate for Phyllis

1 Salazar.

2 BY MS. DUPRE-TOKOS:

3 Q. And what is the case number that is listed on the
4 death certificate?

5 A. 18-19595.

6 Q. And is the death certificate list a manner of
7 death?

8 A. Yes. Accident.

9 Q. And does it give a description of how the injury
10 occurred?

11 A. Yes. She was a victim of wildfire.

12 Q. And what's listed as the immediate cause of
13 death?

14 A. Fire-related injuries.

15 Q. And how was Ms. Salazar identified?

16 A. She was identified by DNA.

17 Q. Exhibit 920.

18 [Exhibit No. 920 was identified.]

19 THE WITNESS: Death certificate for Sheila Santos.

20 BY MS. DUPRE-TOKOS:

21 Q. And what's the listed case number?

22 A. 18-19536.

23 Q. And is there a manner of death listed?

24 A. Yes. Accident.

25 Q. What's the description of how the injury
26 occurred?

1 A. She's a victim of wildfire.

2 Q. What's listed as the immediate cause of death?

3 A. Fire-related injuries.

4 Q. And how was Ms. Santos identified?

5 A. She was identified by DNA.

6 Q. Exhibit 921.

7 [Exhibit No. 921 was identified.]

8 THE WITNESS: It's a debt certificate for Ronald
9 Schenk.

10 BY MS. DUPRE-TOKOS:

11 Q. And what's the case number listed on the death
12 certificate?

13 A. 18-19679.

14 Q. And is a manner of death listed on the death
15 certificate?

16 A. Yes. Accident.

17 Q. And what's the description of how the injury
18 occurred?

19 A. He's a victim of wildfire.

20 Q. What's listed as the immediate cause of death?

21 A. Fire-related injuries.

22 Q. And how was Mr. Schenk identified?

23 A. He was identified by DNA.

24 Q. Exhibit 922.

25 [Exhibit No. 922 was identified.]

26 THE WITNESS: Death certificate for Berniece Schmidt.

1 BY MS. DUPRE-TOKOS:

2 Q. What's the case number listed on the death
3 certificate?

4 A. 18-19865.

5 Q. Is a manner of death listed?

6 A. Yes. Accident.

7 Q. And what's the description of how the injury
8 occurred?

9 A. She's a victim of wildfire.

10 Q. What's listed as the immediate cause of death?

11 A. Fire-related injuries.

12 Q. And how was Ms. Schmidt identified?

13 A. Ms. Schmidt was identified by DNA.

14 Q. Exhibit 923.

15 [Exhibit No. 923 was identified.]

16 THE WITNESS: It's a death certificate for John
17 Sedwick.

18 BY MS. DUPRE-TOKOS:

19 Q. What's the case number listed on the death
20 certificate?

21 A. 18-19699.

22 Q. Is the manner of death listed on the death
23 certificate?

24 A. Yes. Accident.

25 Q. And what's the description of how the injury
26 occurred?

1 A. He was a victim of wildfire.

2 Q. What's listed as the immediate cause of death?

3 A. Fire-related injuries.

4 Q. How was Mr. Sedwick identified?

5 A. He was identified by DNA.

6 Q. Exhibit 924.

7 [Exhibit No. 924 was identified.]

8 THE WITNESS: It's a death certificate for Don
9 Shores.

10 BY MS. DUPRE-TOKOS:

11 Q. What case number is listed on the death
12 certificate?

13 A. 18-19704.

14 Q. And I have a typo on my slide. I apologize. Is
15 a manner of death listed on the death certificate?

16 A. Yes. Accident.

17 Q. What's the description of how the injury
18 occurred?

19 A. He's a victim of wildfire.

20 Q. What's listed as the immediate cause of death?

21 A. Fire-related death.

22 Q. And how was Mr. Shores identified?

23 A. He was identified by DNA.

24 Q. Okay. Do you know if there is -- an amendment
25 pending for Mr. Shores' death certificate?

26 A. Yes.

1 Q. Okay. So I don't have an error on this
2 PowerPoint. What is sought to be corrected on that death
3 certificate?

4 A. The case number needs to be changed to the
5 correct case number.

6 Q. So what is the correct case number?

7 A. The correct case number, I believe, should be
8 705.

9 Q. Okay.

10 A. And his wife -- him and his wife currently share
11 the same case number. That's why the amendment is being
12 made to adjust Mr. Shores' to 705.

13 Q. Okay. And that amendment is in process --

14 A. In process.

15 Q. -- as you described previously?

16 A. Yes.

17 Q. So Exhibit 925.

18 [Exhibit No. 925 was identified.]

19 THE WITNESS: Is Mr. Shores' wife, Kathy Shores.

20 BY MS. DUPRE-TOKOS:

21 Q. What is the case number listed on that death
22 certificate?

23 A. 18-19704.

24 Q. Okay. So the -- that's where you said they had
25 the same case number?

26 A. Correct.

1 Q. But is that the correct case number for
2 Mrs. Shores?

3 A. Yes.

4 Q. And does that death certificate list a manner of
5 death?

6 A. Yes. Accident.

7 Q. And what's the description of how the injury
8 occurred?

9 A. She's a victim of wildfire.

10 Q. What's listed as the immediate cause of death?

11 A. Fire-related injuries.

12 Q. And how was Mrs. Shores identified?

13 A. She was identified by DNA.

14 Q. Exhibit 926.

15 [Exhibit No. 926 was identified.]

16 THE WITNESS: It's a death certificate for Judith
17 Sipher.

18 BY MS. DUPRE-TOKOS:

19 Q. What case number is listed on the death
20 certificate?

21 A. 18-19948.

22 Q. Is the manner of death listed?

23 A. Yes. Accident.

24 Q. What's the description of how the injury
25 occurred?

26 A. She was a victim of wildfire.

1 Q. What's listed as the immediate cause of death?

2 A. Fire-related injuries.

3 Q. And how was Ms. Sipher identified?

4 A. She was identified by circumstantial evidence.

5 Anthropology described her as an older female adult. She
6 lived alone at the address where she was -- where the
7 remains were found, and she had not been heard of -- heard
8 from since the day the fire began.

9 Q. And did she have a vehicle?

10 A. Yes. And her vehicle was also at the address.

11 Q. Okay. Going to Exhibit 927.

12 [Exhibit No. 927 was identified.]

13 THE WITNESS: It's a death certificate for Russell
14 Stewart.

15 BY MS. DUPRE-TOKOS:

16 Q. And what case number is listed on the death
17 certificate?

18 A. 18-19546.

19 Q. And is there a manner of death listed?

20 A. Yes. Accident.

21 Q. And what's the description of how the injury
22 occurred?

23 A. He's a victim of wildfire.

24 Q. What's listed as immediate cause of death?

25 A. Fire-related injuries.

26 Q. And how was Mr. Stewart identified?

1 A. He was identified by DNA.

2 Q. Exhibit 928.

3 [Exhibit No. 928 was identified.]

4 THE WITNESS: It's a death certificate for Victoria
5 Taft.

6 BY MS. DUPRE-TOKOS:

7 Q. What case number is listed on the death
8 certificate?

9 A. 18-19633.

10 Q. And does the death certificate list a manner of
11 death?

12 A. This one is pending.

13 Q. So would the description of how the injury
14 occurred and the immediate cause of death also be pending?

15 A. Yes.

16 Q. Is there an amendment?

17 A. Yes.

18 Q. Does the amendment list the manner of death?

19 A. Yes. Accident.

20 Q. And does the amendment list a description of how
21 the injury occurred?

22 A. Yes. She was a victim of wildfire.

23 Q. And does the amendment list the immediate cause
24 of death?

25 A. Fire-related injuries.

26 Q. And how was Ms. Taft identified?

1 A. She was identified by DNA.

2 Q. Exhibit 929.

3 [Exhibit No. 929 was identified.]

4 THE WITNESS: Is a death certificate for Shirlee
5 Teays.

6 BY MS. DUPRE-TOKOS:

7 Q. What case number is listed on the death
8 certificate?

9 A. 18-19712.

10 Q. Is a manner of death listed?

11 A. Yes. Accident.

12 Q. What is the description of how the injury
13 occurred?

14 A. She's a victim of wildfire.

15 Q. What's listed as the immediate cause of death?

16 A. Fire-related injuries.

17 Q. How was Ms. Teays identified?

18 A. She was identified by DNA.

19 Q. Exhibit 930.

20 [Exhibit No. 930 was identified.]

21 THE WITNESS: Death certificate for Joan Tracy.

22 BY MS. DUPRE-TOKOS:

23 Q. What case number is listed on the death
24 certificate?

25 A. 18-19669.

26 Q. Is a manner of death listed on the death

1 certificate?

2 A. This one is pending.

3 Q. Are the description of how the injury occurred
4 and immediate cause of death also pending?

5 A. Yes.

6 Q. Is there an amendment?

7 A. Yes.

8 Q. Does the amendment list the manner of death?

9 A. Yes. It was an accident.

10 Q. Does the amendment list a description of how the
11 injury occurred?

12 A. Yes. She was a victim of wildfire.

13 Q. Does the amendment list an immediate cause of
14 death?

15 A. Yes. Fire-related injuries.

16 Q. And how was Ms. Tracy identified?

17 A. She was identified by odontology.

18 Q. Exhibit 931.

19 [Exhibit No. 931 was identified.]

20 THE WITNESS: It's a death certificate for Ellen
21 Walker.

22 BY MS. DUPRE-TOKOS:

23 Q. What's the case number listed?

24 A. 18-19532.

25 Q. Is the manner of death listed on that death
26 certificate?

1 A. Yes. Accident.

2 Q. What's the description of how the injury
3 occurred?

4 A. She was a victim of wildfire.

5 Q. What's listed as the immediate cause of death?

6 A. Fire-related injuries.

7 Q. And how was Ms. Walker identified?

8 A. She was identified by DNA.

9 Q. Exhibit 932.

10 [Exhibit No. 932 was identified.]

11 THE WITNESS: Death certificate for Donna Ware.

12 BY MS. DUPRE-TOKOS:

13 Q. And what case number is listed on the death
14 certificate?

15 A. 18-19725.

16 Q. Is a manner of death listed?

17 A. This one is pending.

18 Q. And so is it also pending the description of how
19 the injury occurred and the immediate cause of death?

20 A. Yes.

21 Q. Is there an amendment?

22 A. Yes.

23 Q. Does the amendment list a manner of death?

24 A. Yes. Accident.

25 Q. And does the amendment list a description of how
26 the injury occurred?

1 A. Yes. She's a victim of wildfire.

2 Q. Does the amendment list an immediate cause of
3 death?

4 A. Yes. Fire-related injuries.

5 Q. And how was Ms. Ware identified?

6 A. She was identified by odontology.

7 Q. Exhibit 933.

8 [Exhibit No. 933 was identified.]

9 THE WITNESS: Is a death certificate for Isabel Webb.
10 MS. DUPRE-TOKOS:

11 Q. What case number is listed on the death
12 certificate?

13 A. 18-19754.

14 Q. Is a manner of death listed?

15 A. Yes. Accident.

16 Q. What's the description of how the injury
17 occurred?

18 A. She's a victim of wildfire.

19 Q. What's listed as the immediate cause of death?

20 A. Fire-related injuries.

21 Q. And how was Ms. Webb identified?

22 A. She was identified by circumstantial evidence.

23 Q. What's the circumstantial evidence?

24 A. According to anthropology, she was a mid to older
25 adult. The victim lived alone at the address, and there
26 was mail for the victim in that mailbox.

1 Q. Exhibit 934.

2 [Exhibit No. 934 was identified.]

3 THE WITNESS: It's a death certificate for Marie
4 Wehe.

5 BY MS. DUPRE-TOKOS:

6 Q. And what's the case number listed on the death
7 certificate?

8 A. 18-19537.

9 Q. Is there a manner of death listed on this death
10 certificate?

11 A. It's pending.

12 Q. So are the description of how the injury occurred
13 and the immediate cause of death also pending?

14 A. Yes.

15 Q. And is there an amendment?

16 A. There are two.

17 Q. There are two?

18 A. Yes.

19 Q. What does the first amendment correct?

20 A. The first amendment corrects the last name of her
21 mother.

22 Q. And what does the -- does the second amendment
23 list a manner of death?

24 A. Yes. Accident.

25 Q. Does the second amendment give a description of
26 how the injury occurred?

1 A. Yes. She's a victim of wildfire.

2 Q. What does the second amendment list as the
3 immediate cause of death?

4 A. Fire-related injuries.

5 Q. And how was Ms. Wehe identified?

6 A. She was identified by DNA.

7 Q. Exhibit 935.

8 [Exhibit No. 935 was identified.]

9 THE WITNESS: Death certificate for Kimberly Wehr.
10 BY MS. DUPRE-TOKOS:

11 Q. What's case number is listed on the death
12 certificate?

13 A. 18-19627.

14 Q. And does the death certificate list a manner of
15 death?

16 A. This one is pending.

17 Q. Is the description of how the injury occurred and
18 the immediate cause of death also pending?

19 A. Yes.

20 Q. Is there an amendment?

21 A. Yes.

22 Q. Does the amendment list the manner of death?

23 A. Yes. Accident.

24 Q. What is the description of how the injury
25 occurred?

26 A. She's a victim of wildfire.

1 Q. What's listed as the immediate cause of death?

2 A. Fire-related injuries.

3 Q. And how was Ms. Wehr identified?

4 A. She was identified by DNA.

5 Q. And Exhibit 936.

6 [Exhibit No. 936 was identified.]

7 THE WITNESS: It's a death certificate for David
8 Young.

9 BY MS. DUPRE-TOKOS:

10 Q. What case number is listed on the death
11 certificate?

12 A. 18-19541.

13 Q. Does the death certificate list a manner of
14 death?

15 A. This one is pending.

16 Q. Is the description of how the injury occurred and
17 the immediate cause of death also pending?

18 A. Yes.

19 Q. Is there an amendment.

20 A. Yes.

21 Q. Does the amendment list the manner of death?

22 A. Yes. Accident.

23 Q. Does the amendment give a description of how the
24 injury occurred?

25 A. Yes. He's a victim of wildfire.

26 Q. And does the amendment list an immediate cause of

1 death?

2 A. Yes. Fire-related injuries.

3 Q. How was Mr. Young identified?

4 A. He was identified by DNA.

5 MS. DUPRE-TOKOS: And that is it. Does anyone have
6 any questions?

7 GRAND JUROR NUMBER FOUR: Yeah, I -- a whole bunch of
8 these are way out of order. I mean, I got lost because
9 you -- I don't see where you did Donna Ware or Ellen
10 walker.

11 MS. DUPRE-TOKOS: We did those.

12 GRAND JUROR NUMBER TWO: We did. They're just not in
13 order in the PowerPoint for some reason. In our
14 PowerPoint, they're in different locations.

15 GRAND JUROR NUMBER FOUR: Yeah, that's what I was
16 saying.

17 GRAND JUROR NUMBER TWO: They're not perfectly in
18 order.

19 MS. DUPRE-TOKOS: Oh, it looks like the pages got out
20 of order but all the pages are numbered so you get them.

21 GRAND JUROR NUMBER FOUR: Yeah, I know. My pages are
22 in order. I -- that's all right if you went over them, I
23 guess, I must have missed them. What about Isabel Webb?

24 MS. DUPRE-TOKOS: We did Ms. Webb. So do we need to
25 get you guys a new PowerPoint? No?

26 GRAND JUROR NUMBER TWO: No, we just know that

1 they're not in perfect order. She numbered them. They're
2 there.

3 GRAND JUROR NUMBER EIGHT: They were fine for me when
4 I grabbed the top copy. No, she handed them to me and it
5 came out just fine for me.

6 MS. DUPRE-TOKOS: Maybe some of them just got mixed
7 up.

8 GRAND JUROR NUMBER TWO: Yeah, they're just moved out
9 of order.

10 GRAND JUROR NUMBER FOUR: All right.

11 MS. DUPRE-TOKOS: We apologize for that.

12 Were there any other questions? No. Okay. I
13 guess we just need the admonition.

14 GRAND JURY FOREPERSON: Okay.

15 Investigator Celentano, you are admonished not to
16 discuss or disclose, at any time outside of this jury
17 room, the questions that have been asked of you or your
18 answers until authorized by this grand jury or the court.

19 A violation of these instructions on your part
20 may be the basis for a charge against you of contempt of
21 court. This does not preclude you from discussing your
22 legal rights with your own attorney.

23 Investigator Celentano, what I have just said is
24 a warning not to discuss this case with anyone except the
25 court, your lawyer or the district attorney.

26 Do you have any questions?

1 THE WITNESS: No.

2 GRAND JURY FOREPERSON: Okay. Thank you for your
3 time.

4 THE WITNESS: Thank you.

5 MR. NOEL: All right. This went quicker than we
6 expected. That's all the evidence that we have scheduled
7 for today. So we're going to get an early day. It's
8 right on noon.

9 Most of you will get an early day. A couple of
10 your members still have a lot of work to do. They're
11 going to be here for a while processing, because I think
12 we put in over a hundred exhibits today that all need to
13 be processed. So they'll be here for a while.

14 Upcoming, on Tuesday, there's no way to -- to
15 pussyfoot around this, it's going to be a difficult day.
16 We will be hearing mostly on Tuesday from the chief
17 forensic pathologist from the Sacramento Coroner's Office
18 that is going to be talking about autopsies. And I don't
19 expect that we're going to have any pictures. It's going
20 be very dry.

21 MS. DUPRE-TOKOS: It'll be very similar to --

22 MR. NOEL: Yes.

23 MS. DUPRE-TOKOS: -- what the PowerPoint that was
24 today.

25 MR. NOEL: He's going to be going through all of the
26 autopsies and essentially giving opinions on how, why each

1 person died. So it's going to be very difficult.

2 MS. DUPRE-TOKOS: We also have one other witness.

3 MR. NOEL: Yes. I said it over and over and over
4 again the last couple of weeks, we are trying to do the
5 absolute minimum on the death evidence to prove the deaths
6 and not have to subject you guys to anything more than --
7 than the minimum.

8 That being said, the toughest of the evidence --
9 the toughest category of the death evidence is what we
10 call the proof-of-life evidence, and we heard a little bit
11 come out this morning. The hearsay that we already talked
12 about at the break. The young man who told the sheriff's
13 department he was talking with his grandmother on the
14 phone that morning. That is the -- what is considered the
15 proof-of-life evidence. Some people -- the proof-of-life
16 is going to be how they were found, how they died. People
17 in cars. People in --

18 MS. DUPRE-TOKOS: Outside.

19 MR. NOEL: -- outside. But for some of these people
20 that died in their homes, we have to prove that they were
21 alive on the morning of November 8th. So Tuesday, you are
22 also going to hear your very first proof-of-life evidence
23 witness. You're going to hear a recording of one of the
24 deceased who was speaking with her brother on that morning
25 and encouraging him to evacuate. It's going to be
26 difficult.

1 As I said, we are trying to do this in the most
2 sensitive, easiest manner possible. And even then, some
3 of this stuff is still very difficult. So we can -- kind
4 of leading up to this -- and you guys have kind of started
5 getting used to it. I think, you know, the first day, the
6 death evidence really affected a lot of you, and with each
7 day and each witness, it seems to get a little bit easier.
8 Now, it's going to step up a little bit. So be ready for
9 it. Be prepared and know what to expect.

10 Like I said, it's okay to be a bunch of Captain
11 Kirks right now. As long as later on, you can all become
12 Spock and get rid of all of that emotion and all of that
13 anger. Everybody okay?

14 Madam Foreperson?

15 GRAND JURY FOREPERSON: Okay. We're done for the
16 day.

17 MR. NOEL: We're done for the day.

18 GRAND JURY FOREPERSON: Okay. So we will be back on
19 Tuesday at 8:30. See you then. Thank you.

20 [Matter adjourned at 12:02 P.M.]

21 ///

22 ///

23 ///

24 ///

25 ///

26 ///

COURT REPORTER'S CERTIFICATE

THIS IS TO CERTIFY THAT I, ASHLEIGH BUTTON, A
CERTIFIED SHORTHAND REPORTER OF THE STATE OF CALIFORNIA,
WAS PRESENT AT THE TIME AND PLACE THE FOREGOING GRAND JURY
PROCEEDINGS WERE HAD AND TAKEN IN THE WITHIN MATTER; AND
THAT AS SUCH SHORTHAND REPORTER I DID TAKE DOWN IN
SHORTHAND WRITING THE AFOREMENTIONED PROCEEDINGS; AND
AFTERWARDS CAUSED MY SAID SHORTHAND WRITING TO BE
TRANSCRIBED INTO TYPEWRITING; AND THE FOREGOING PAGES,
BEGINNING AT THE TOP OF PAGE 1 TO AND INCLUDING PAGE 128
HEREOF, CONSTITUTE A FULL, TRUE, ACCURATE, AND COMPLETE
RECORD OF THE PROCEEDINGS.

WITNESS MY HAND THIS 17TH DAY OF JUNE, 2022.



ASHLEIGH BUTTON, CSR #14013

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

REDACTED

BCSC-2019-GJ-01

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, JANUARY 28, 2020

VOLUME 33

OROVILLE, BUTTE COUNTY, CALIFORNIA

LISA MCDERMID WELCH, CSR 10928, OFFICIAL COURT REPORTER

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5 25 County Center Drive
6 Oroville, California 95965

7 FOR THE STATE OF CALIFORNIA DEPARTMENT OF JUSTICE
8 OFFICE OF THE ATTORNEY GENERAL:

9 (No appearance)

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1 OROVILLE, BUTTE COUNTY, CALIFORNIA

2 JANUARY 28, 2020; 8:52 a.m.

3 (Confidential Special Grand Jury Hearing Proceedings)

4
5 [ROLLCALL OMITTED.]

6
7 [DISCUSSION OMITTED.]

8
9 [Witness enters the courtroom.]

10 MR. NOEL: Up there (indicating).

11 MS. DUPRE-TOKOS: And you can move the exhibits
12 wherever you want them.

13 THE WITNESS: Thank you.

14 GRAND JURY FOREPERSON: And, Dr. Tovar, before
15 you have a seat, would you please raise your right hand
16 to be sworn.

17 Dr. Tovar, do you solemnly swear that the
18 evidence you shall give in this matter pending before the
19 grand jury shall be the truth, the whole truth, and
20 nothing but the truth so help you God?

21 THE WITNESS: Yes, I do.

22 GRAND JURY FOREPERSON: Thank you. Have a seat.

23 THE WITNESS: Thank you.

24 **EXAMINATION**

25 BY MS. DUPRE-TOKOS:

26 Q. Good morning.

1 A. Good morning.

2 Q. Could you please state your name and spell your
3 last name for the record.

4 A. Jason Tovar, T-o-v-a-r.

5 Q. And where are you employed and in what capacity?
6 What's your title?

7 A. I work for the Sacramento County Coroner's
8 Office. I'm the chief forensic pathologist there.

9 Q. Okay. And what does that mean? What is a
10 forensic pathologist?

11 A. A forensic pathologist is a doctor of pathology
12 who specializes in forensics. And my primary goal is to
13 determine the cause of death of an individual.

14 [Exhibit 1055 introduced
15 as evidence.]

16 BY MS. DUPRE-TOKOS:

17 Q. I put up on the screen your CV. And I don't
18 know -- I did not see that in there. So we are going to
19 have to make sure that a copy is there. But you're
20 welcome to stand up if you need to read the screen.

21 Could you go through your education and training
22 for us.

23 A. Sure. Following my undergrad at Fresno State
24 University I went to medical school at the University of
25 California in San Diego, completed medical school there,
26 went into pathology at Harvard UCLA Medical Center for my

1 residency followed by a year in general pathology as a
2 fellowship at the same location.

3 I did two years as a pediatric pathologist in
4 training in a fellowship at Children's Hospital in Los
5 Angeles in addition to a one-year fellowship in forensic
6 pathology at the coroner's office in Los Angeles.

7 I have board certification in anatomic clinical
8 and forensic pathology and I hold an active license in
9 the state of California to practice medicine.

10 Q. And it also says that you're trained in medical
11 death investigations?

12 A. I completed a course during my fellowship
13 training at the coroner's office in Los Angeles, went to
14 a dedicated course in that training, yes.

15 Q. And then could you briefly go through your
16 experience for us, your work experience after you left
17 your residency and your fellowship.

18 A. I have been employed at the Sacramento County
19 Coroner's Office for almost seven years now since 2013.

20 Q. Okay. And how long have you been the chief
21 forensic pathologist there?

22 A. Almost -- about two and a half years.

23 Q. And then in your CV we also see your
24 professional memberships as well as lectures you've given
25 and then your bibliography. And then it looks like you
26 have been fairly extensively published in peer review

1 journals as well as non-peer journals. Is that accurate?

2 A. Yes.

3 Q. And then it looks also like you've done a lot of
4 presentations. What is a poster session?

5 A. A poster session is a way to put out some
6 preliminary information on research that's being done in
7 topics that you have identified. In my case, I have a
8 number of those just from during general pathology
9 training and pediatric training.

10 You identify a case you want to put out some
11 information on the specific topic. And it's -- it's not
12 a formal paper. It's an abstract you submit to the
13 committees to the society for the meeting that you're
14 going to and you create a poster in essence that's just
15 hanging on the wall. And you hang out and let the people
16 come and talk to you about it.

17 Q. Okay. So were you involved in conducting
18 autopsies of victims of the Camp Fire that started in
19 Butte County on November 8, 2018?

20 A. Yes, I was.

21 Q. Okay. And how did you come to be involved?

22 A. We were contacted by the sheriff's office here
23 in Butte. They contacted our coroner Kim Gin who -- to
24 ask for help. There was going to be unknown at that time
25 initially how many victims were involved. There was a
26 large number that were being reported, of course. So

1 they reached out to us for assistance since we have a
2 number of pathologists, forensic pathologists that could
3 assist in the autopsies and examinations of these
4 individuals.

5 They needed a facility that could house the
6 number of people that were coming, staff, et cetera. So
7 we were looked to for that assistance. We are kind of
8 this region's mutual aid center as well. So when there's
9 a mass disaster of such, we would be called to arms.

10 Q. So the sheriff's department contacted the
11 coroner and then they contacted you. And did you put a
12 team together or was it just the usual staff and you kind
13 of gave everyone the heads up? How did that work?

14 A. Yeah, pretty much that. I got a call from the
15 coroner general stating "We're being asked to assist in
16 this matter. There's a number of individuals and can you
17 call the staff to see if they can come in on the
18 weekends."

19 It's our normal operating procedure for the
20 doctors not to work on weekends. And so I rallied the
21 troops, and they showed up on Saturday.

22 Q. Okay. You called this a mass disaster. What
23 exactly is that or generally?

24 A. In general it's just a situation where there's
25 an excessively large number of -- an incident where -- a
26 mass disaster in itself is when some event happens that

1 can overwhelm the usual operating system. And so a
2 hurricane, a fire, something like that. You know, a
3 global nature that is going to take out cities and towns
4 is a mass disaster. There are some problems. And
5 FEMA --

6 You know, words and stuff. I don't know all the
7 details of that, but it's just anything that's going to
8 potentially overwhelm the usual system and will allow for
9 certain things to come into play; mutual aid, assistance
10 from federal government, and so forth. And this would
11 have been also a mass casualty incident.

12 Q. Okay. And that would mean a large number of
13 casualties?

14 A. A large number, yeah.

15 Q. Okay. Did you need to develop a protocol for
16 this mass casualty incident in terms of how to conduct
17 the autopsies, how to do IDs, basically how to do
18 everything?

19 A. We've had to come up with some modifications.
20 We have a mass disaster plan in place for mass
21 casualties. We just had some training, for example, like
22 in an airport disaster. Of course, that doesn't pertain,
23 but so we had some documents in play. We had some
24 protocols and sequencing of how we wanted to do things
25 that pretty much went out the door.

26 Q. Why?

1 A. Because we didn't know what to expect. Fire
2 deaths bring a lot of different possibilities, but the --
3 it was the -- the way that the remains came in that
4 really just kind of threw all normalcy, if you will. If
5 you can imagine an autopsy and examination pretty much
6 out the door and you had to rely on "Okay. Here's what
7 we need to do" and come up with some on-the-fly aspects.

8 Q. And is that because there were very few whole
9 bodies and lots of, I guess, charred remains? And I'm
10 probably not using the right terms, but in laymen's terms
11 charred remains. Is that what the difference was?

12 A. Yes, for the most part. I mean, we had some --
13 some more intact individuals. We had partial bodies and
14 then we had bones and debris.

15 And, you know, I didn't know what to expect.
16 For example, we're going to have all these individuals.
17 We showed up on that weekend, and I go to my station to
18 begin my exam and I have boxes and buckets and bags of an
19 individual. You know, not a normal situation. So we had
20 to decide "What are we going to do with this?"

21 And, you know, each case you had to -- we
22 started to find a pattern that we could do. And so then
23 that kind of on the fly created the sequencing of events
24 that we were going to do with each individual.

25 Q. And did you still try to -- to the extent
26 possible still follow your standard autopsy procedures?

1 A. We did for the most part. There would be some
2 things that would still remain in place. You know, you
3 have an individual -- you know, with fire victims there
4 are certain things that we would do normally in the
5 course of working up an individual that was involved in a
6 fire. Where we could do the bulk of that we did, where
7 we had to modify it a little bit we did. So we just
8 adapted as we went.

9 Q. Now, I'm sure you're familiar with CSI and what
10 a lot of us in law enforcement call the CSI effect. And
11 that's where on TV they get the tiniest fragment of bone
12 and within minutes they have a complete DNA profile and
13 an identification.

14 Did you do that?

15 A. Yes and no actually.

16 Q. Okay. Can you explain.

17 A. Yeah. This -- this -- we were able to actually
18 use a rapid DNA process that is -- was the first time it
19 was ever used in this type of situation in a mass
20 disaster and mass casualties. The technology for DNA has
21 come a long way. It does take a very, very long time and
22 routine practice to get results from DNA. However, this
23 allowed us to actually get within about two hours a
24 profile that could then be matched to a family member or
25 other profiles to say "This is the likely
26 identification."

1 So, yes, we did get it. Not in 20 minutes but
2 we did get -- we were able to obtain IDs or profile --
3 DNA profiles for these individuals fairly quickly and
4 being able to use these bones. So it was technology that
5 has been now employed in numerous situations and has
6 really good results.

7 So, yes. I mean, that technology -- we're not
8 there in 20 minutes or in a half hour show or an hour CIS
9 show, but it -- the technology is moving in that
10 direction. So we were able to do that very quickly, yes.

11 Q. Okay. How did you and your team approach
12 determining the cause of death?

13 A. The cause -- to determine a cause of death you
14 have to take in the totality of the situation and what
15 the body is even showing. So we had to go through those
16 on-the-fly attempts to figure out things, modifying those
17 things, and come to a consensus there.

18 [Exhibit 1056 introduced
19 as evidence.]

20 THE WITNESS: This is a flowchart, if you will,
21 of what we did in order to try to make sure we were
22 capturing every element possible with every decedent.
23 You know. So we would start with our examination from
24 the pathologist. We'd get information from the scene,
25 we'd get information from the investigation, Butte County
26 coroner's office, or the recovery aspects of it.

1 So we had some information, and we would take
2 that and put it into play. We'd start with us examining
3 the body, the remains, or whatever it was and then step
4 wise and move forward. So we would go from our
5 examination to we would look at the remains, kind of
6 separate things out from what was human and nonhuman and
7 debris from any buildings or anything like that that may
8 be there.

9 We would do x-rays looking for any -- to make
10 sure that there wasn't, you know, something else going
11 on. You know. If we start to find a projectile or a
12 bullet with these remains, we'd have to worry about that.
13 I don't think we found any of that.

14 But so we would -- and part of the pathology
15 exam we would look at the remains, separate things out,
16 sort things, try to make some sense of what we had, then
17 go to x-ray and x-ray those remains as just the standard
18 operating procedure.

19 Because this is an undetermined cause of death
20 at the moment, we don't know really what's going on. We
21 don't know who this individual is. It would help us to
22 identify an x-ray, for example, a prosthesis, medical
23 implantations, things that might help in aiding
24 identification.

25 Then once we were done with that portion of it
26 and doing as much as we could in looking for tissues and

1 things to look for toxicology or DNA, it would move onto
2 the anthropologist. The anthropologist would come in and
3 look at it. "Okay. We have one individual or we have
4 three individuals in this set of remains, two
5 individuals. We think that there's this or --"

6 And so then it would come back to us. We would
7 say "Okay. Well, what do we need to do here?" Now we
8 need to separate these two out the best we can with the
9 anthropologist.

10 If there were teeth, we could use that for
11 odontology. So we had separated those out trying to see
12 if it's one individual or not. Again, we had our DNA.
13 We have profiles. And then, you know, the arrows are in
14 one direction, but those arrows go back and forth and
15 back and forth. And it went on for a while because we
16 would identify new things at each step of the way that
17 would have to bring it back to the pathologist.

18 So once we got all that information together, we
19 were able to go forward and say what we think the reason
20 that this individual passed away and the cause of death
21 in that.

22 BY MS. DUPRE-TOKOS:

23 Q. Now, did you and your team, I guess, essentially
24 settle on standards or terms of cause --

25 MR. NOEL: Jen, back up. You need to identify
26 it.

1 MS. DUPRE-TOKOS:

2 Q. Oh, I'm sorry. And that's Exhibit 1056, the
3 flowchart.

4 A. Yes.

5 Q. And then looking --

6 MR. NOEL: You've been referring to 1056, the
7 flowchart between pathology, anthropology, odontology,
8 and DNA; correct?

9 THE WITNESS: Correct, yes.

10 MR. NOEL: All right.

11 [Exhibit 1057 introduced
12 as evidence.]

13 MS. DUPRE-TOKOS:

14 Q. And then looking at Exhibit 1057, did you and
15 your team settle on standard terms for cause of death if
16 they applied just so that everyone would be using the
17 same nomenclature or guidelines?

18 A. Yes, we did. We tried to come up with some
19 standard language to use so that we would all be kind of
20 consistent. You know, we didn't want to have a whole
21 bunch of -- we had six or so pathologists. They could
22 all come up with different language to use if we let them
23 if we did that.

24 So we decided let's try to come up with
25 something that would help to provide some uniformity to
26 the diagnosis but in addition also lend some information

1 about to the state of the remains, the ability to
2 identify certain things or not.

3 So as you can see in this -- from this exhibit
4 here 1057 that we -- not every decedent or/and body was
5 going to allow for every possible test that we were going
6 to use that is standard in the usual practice of a
7 fire-related death.

8 There are certain things with toxicology that we
9 do. We always want to do carbon monoxide testing. We
10 want to do any other ancillary tox that we can do on
11 these individuals. And we want to examine, if possible,
12 the airways, the larynx, the trachea, and the lungs to
13 look for evidence of smoke inhalation, soot in the
14 airway, kind of that dark stuff that you see on your
15 chimney. The black stuff also deposits within the
16 airways.

17 So if we could see that, it would provide
18 evidence to help support whether or not maybe somebody
19 was alive during the fire and breathing in smoke.

20 A lot of our cases didn't fulfill any of those
21 criteria. So we needed something to try to relate that.
22 So if we were able to perform toxicology testing on a
23 sample of liquid blood from the decedent, caked blood,
24 blood that had been kind of congealed due to heat and
25 fire, or tissue, we wanted to -- we wanted to do a CO
26 test.

1 In those cases where we didn't have any of that
2 but we had more intact individuals, more soft tissues,
3 maybe we did see soot in the airways, but we didn't -- it
4 was limited because we didn't have any blood products or
5 other things to test for that. We would use the middle
6 one there (indicating) thermal injuries.

7 The top one -- if we could prove that there was
8 smoke inhalation and/or an elevation of the
9 carboxyhemoglobin, the CO in the blood or tissues, we'd
10 be able to use that top line there "Inhalation of
11 products of combustion" and then whether or not we saw
12 injuries due to fire.

13 Most cases ended up being fire-related injuries
14 because we just had low -- not a lot of soft tissues. We
15 didn't have anything to test. And so most of them fell
16 into that category down below.

17 So it just kind of added to being able to
18 describe with some uniformity in addition to some
19 description about what the remains consisted of.

20 Q. Okay. And then you just mentioned
21 carboxyhemoglobin. What is that?

22 A. That is the product that is created when carbon
23 monoxide binds to the hemoglobin molecule in the blood.
24 Hemoglobin carries oxygen usually. But when you're
25 exposed to carbon monoxide, that also binds to that and
26 displaces the oxygen and that's how you become toxic

1 because you can't deliver oxygen to the tissues. So it's
2 a product of you inhaling carbon monoxide.

3 Q. So is that how it's a factor in determining
4 cause of death and if someone was alive at the time of
5 the fire? Because it bonded to the carbon monoxide or --

6 A. To the hemoglobin, yes. So it helps to aid --
7 it's a finding that could aid in the identification.

8 Very few cases had liquid blood meaning that the
9 blood was still in fluid form where there's an
10 interpretation that could be -- there is a finding that
11 could be better interpreted.

12 The toxicologies come back on these individuals
13 where we sent stuff. And when there's a liquid
14 component, there's good correlation to the number, the
15 actual quantity that they've identified of
16 carboxyhemoglobin. That can be constrapulated out and
17 given a percentage; 10, 12, 20, 30, 40, 50, 60 percent.
18 Okay.

19 And that has meaning in itself because we know
20 that at certain concentrations, it becomes toxic and
21 lethal. And by finding that level in that particular
22 liquid component, we're able to say "This person was
23 inhaling carbon monoxide and the blood was becoming
24 saturated with it and that would lead to toxicity. It's
25 also an indicator that that person was alive at the time
26 that the fire was burning because they're breathing it

1 in.

2 The problem that we faced in this case was that
3 much of the blood that we have was actually congealed and
4 caked. And that brings about problems because the actual
5 fluidity of the blood, the liquid component of the blood,
6 the change in the composition of the blood due to the
7 heat and due to the drying doesn't lend to that easy as
8 an interpreter.

9 So we had to -- by standardized procedure we
10 would submit anything that we could because that was what
11 we decided and because we would also be able to find
12 other potential things in that. Other drugs, for
13 example, abuse, or anything else that may be in that --
14 in the blood to help decide whether this was fire-related
15 or possibly something else. And so we did it on
16 everything.

17 But the interpretation is very muddled on any
18 case that does not have that fluid component of blood.
19 And it becomes what was -- and if you see -- when you --
20 if you review these cases, in the top you'll see that
21 it's brought in as tissue. It will say "blood" but then
22 it will say "tissue." And that's because it was really
23 dried and caked and had undergone the thermal changes.

24 There is a number that is going to be associated
25 with that, but the interpretation of that number has --
26 is so difficult to understand. Any time you start moving

1 into the tissue components, the toxicologist will talk a
2 lot about different concentrations of the molecule here.
3 And it's just muddled.

4 So even though we wanted to do that to try to
5 have some uniform language, some cases where we had the
6 blood, we couldn't really jump to that conclusion to say
7 that it was evidence of inhalation of products of
8 combustion.

9 So even though we have a number and it may be a
10 little bit elevated or it may be lower, the actual
11 interpretation of that number is muddled. And whether
12 that represents an artifactual lower number or an
13 artifactually high number is also muddled. So it just
14 provides information. But it didn't really help us
15 coming to one of those particular conclusions other than
16 the fact that we couldn't definitively say that there was
17 evidence of smoke inhalation so therefore. But we had
18 something that may suggest it. So it put us into the
19 middle language there on that chart.

20 Q. I'm going to jump back a little bit and ask you
21 about the affinity of carbon monoxide to blood or
22 hemoglobin.

23 Does that question make sense?

24 A. I will paraphrase this to see if this is what
25 the question is is that you want to see which has more
26 binding affinity for hemoglobin oxygen or carbon

1 monoxide.

2 Carbon monoxide -- so let me -- maybe it's -- so
3 carbon monoxide -- the hemoglobin protein has areas that
4 allow oxygen to come in and bind to it, gets circulated
5 to the tissues. As it reaches the tissues, there's
6 certain things that happen physiologically that allow the
7 oxygen to come off and get utilized by the tissues.
8 Carbon dioxide comes in. It gets carried back to the
9 lungs. You breath it out. You breath in oxygen. And it
10 goes through there. So it binds and releases at
11 different physiologic parameters.

12 Carbon monoxide competes for the location where
13 oxygen also binds. So when you breath in carbon
14 monoxide, it actually binds to the site where oxygen
15 would normally want to go and -- but it's a poison. So
16 what happens is it actually has a higher -- it stays
17 longer and it doesn't go away.

18 So even though it reaches the tissues, it
19 doesn't come off in the tissues and it goes to the lungs.
20 And it doesn't come off there. It stays bound very
21 tightly so that now you can imagine that if you have
22 something that doesn't go away and you keep breathing,
23 it's just going to increase in concentration.

24 So, yes, it's better bound than oxygen.

25 Q. Thank you.

26 So then going back to what you were talking

1 about with the muddy interpretation, so if carbon
2 monoxide or if -- if that's a marker, if it's not there,
3 does it mean that someone didn't die from other products
4 of combustion or --

5 A. No, it doesn't. Carbon monoxide is a marker of
6 fire, if you will. I mean, it's produced when there's a
7 fire. And it's -- we know this physiology of attaching
8 and binding. So it's something that we can identify and
9 it's readily available in most labs to look for that
10 product.

11 And so when it's there, it's a great marker to
12 say, yes, this person was breathing in smoke and
13 breathing in this carbon monoxide that was created by a
14 fire if that's the circumstances of course. Then we can
15 look for that. And when we find it, it's great.

16 Sometimes though people die too quickly. You
17 know, in these fires it was hot and it was very rapid.
18 So an individual could be overcome by the fire so quickly
19 that they didn't breath in a lot of it and then suffered
20 as a consequence of burning and succumb to that.

21 There may be other things in a fire -- in a
22 house fire. Carbon monoxide isn't the only thing that
23 can be produced. There's other toxins and other gases
24 that are created that we just don't routinely test for.
25 We could, but it's -- there's just too many to really
26 make any sense of that.

1 So it's possible that even though -- even in an
2 individual who was -- has a good concentration of liquid
3 blood and we're able to get a good number and the body
4 wasn't dramatic -- you know, so altered that we couldn't
5 make some sense of it, that this person -- and there's
6 evidence that they were breathing in smoke, we have a
7 little bit of validation of carbon monoxide.

8 They're also breathing other things, other
9 toxins, and other poisons that could cause respiratory
10 problems, cardiovascular events, and so forth that we
11 just can't test for in a routine setting.

12 So there's a lot of things that could be in
13 play. So the fact that carbon monoxide isn't there or
14 isn't present, it could still be related to the fire in
15 the right circumstances and in the right setting. But we
16 just didn't test for all of those things. There's just
17 some limitations to cost. And, you know, you can't just
18 "I'm going to test for everything." You have to have a
19 reason. You know, a reasonable certainty we're going to
20 look for something that is going to give us this marker.
21 So it is possible.

22 And if they die too quickly, they may have a
23 very low level. But we look in the airway and we see
24 soot in the airway that creates burning and charring.
25 There are effects where oxygen is displaced because the
26 fire is consuming all the oxygen and now they just --

1 even though they're breathing this in or they can
2 suffocate because there's no oxygen in the air.

3 So there's a lot of other things that can come
4 about and create a low carbon monoxide in the blood.

5 Q. So would one of those other things also possibly
6 be -- you said the fire was hot, the air was hot, there
7 were all these gases in the air from things that were
8 burning. Could that cause someone's throat to close up
9 and also then prevent any or very limited amount of soot
10 in the airway and then also low carboxyhemoglobin?

11 A. Yes, that is possible. There's a lot of things
12 that the body will do in order to try to protect itself.
13 And, you know, it's -- those are mechanisms that we can't
14 account for. But that would be something that could
15 happen that you just can't breath because it's so hot and
16 you create the injury to the airways.

17 Q. Now, you talked a little bit about some of the
18 results that can come up in toxicology results. And one
19 of the things -- excuse me -- that you mentioned was
20 drugs of abuse. Is that like street drugs?

21 A. Yes.

22 Q. Okay.

23 A. Or prescription drugs. Either way.

24 Q. Oh, that's true.

25 A. Right.

26 Q. So if that comes up in the toxicology report as

1 positive for whatever drug of abuse, normally -- in more
2 standard cases does the toxicology report also often
3 include information about therapeutic levels, toxic
4 levels? Things like that?

5 A. It does, yes.

6 Q. In this case in this incident was that generally
7 included if drugs of abuse were located?

8 A. Yes. There would be -- there are some
9 limitations of course. In the fluid components of blood
10 there are these kind of normal grams, numbers that can be
11 created just like for the carbon monoxide. But when you
12 start getting into the tissue levels and certain things,
13 there are some numbers -- but again, it also becomes very
14 difficult to interpret. You know. So but there are a
15 number that may be associated with that.

16 Q. And including the drugs of abuse and things like
17 that, is that -- would that have been part of your due
18 diligence and part of running toxicology tests on, for
19 example, blood that is being -- having to be run as
20 tissue?

21 A. Yes. That would have been our standard
22 operating procedure for these to go ahead and do as much
23 toxicology as we can. You know, we wanted to include and
24 look for any other possibilities. Our goal -- remember,
25 at the end of the day our goal is to come up with why
26 this person passed away, the cause of death of this

1 individual.

2 And so the more you do, the more information
3 that you're able to get, that allows for a better
4 interpretation. Even if it is muddy, you could come to a
5 better medical opinion about "This is what I think has
6 happened."

7 Q. So, for example, is someone's toxicology came
8 back and there was meth in their system, how would you
9 determine if the meth was the cause of death or something
10 else was?

11 A. Again, we would -- this is where we would be
12 looking at the -- the totality of the particular case.
13 So if somebody came back with a drug of abuse,
14 methamphetamine or cocaine or heroin or any other
15 prescription drugs which was the case in some of these,
16 we would use everything that we had available to come to
17 a medical opinion about what we think happened.

18 They may come back with a methamphetamine level
19 that is potentially toxic, but they also have a CO carbon
20 monoxide that's toxic and they have evidence of burns on
21 their body. In that case it's like "Well, you know,
22 there is evidence that this carbon monoxide is present
23 and they're alive." And then they also have burns.

24 With reasonable medical certainty it's more
25 likely the fact that they're intoxicated on
26 methamphetamine, but they're dying with it and not from

1 it. And it's the carbon monoxide that is playing a
2 bigger role and the thermal injuries to the body that are
3 playing a bigger role in that person's death.

4 And so it's a finding, but the interpretation is
5 then based upon the pathologist's interpretation of all
6 of the data including the circumstances of the case.

7 You know, we have -- you know, people die all
8 the time intoxicated with drugs, but they were shot in
9 the head. You know, it had -- that has nothing to do
10 with their actual cause of death because they got shot in
11 the head. And the meth is -- it might be a reason that
12 they potentially got shot because they may have been
13 acting erratic or something or doing deviant behavior,
14 but that didn't really contribute in any way directly to
15 them being dead from the gunshot wound, for example.

16 So we had to look at the totality of all of
17 these cases, put things in place, and come up with that
18 medical opinion.

19 I don't believe that any of these were -- where
20 toxicology -- when there were potentially competing
21 causes of death from drugs or high levels of drugs, there
22 were none that were like "I'm going to favor that over it
23 being part of the fire." They were all related to the
24 fire in the end.

25 Q. So once you determine the cause of death, is
26 that the only thing listed on the autopsy or is there

1 other information generally listed?

2 A. So if you were to look at the -- using the first
3 page of all of these autopsy reports, you're going to see
4 a lot of information about cause of death, other
5 significant conditions, autopsy findings. And so we --
6 some have that, some don't, and some just have the cause
7 of death on the first page.

8 So Dr. Resk just puts that out in front and
9 doesn't list much else, but in our facility we do other
10 things in our report templates. So, for example, if you
11 see where it says "autopsy findings" on the front page
12 here, those are things that we seen at the time of the
13 exam. When we perform the autopsy, here's what we
14 identified. Some have more, some have less. You know.

15 But we also were looking for natural diseases.
16 We also were looking for unnatural components other than
17 the fire. So we're looking at it all because we've got
18 to come to some conclusion about what happened. So we
19 would list those various things there. That would
20 include findings of toxicology, findings of x-ray,
21 findings of the remains themselves at the time of the
22 autopsy, any natural disease where there was enough
23 organs and tissues left to make some diagnosis. And
24 those would be the autopsy findings.

25 Then we -- based on all of the assimilation of
26 everything, we came to -- the pathology would come to a

1 conclusion about what was the cause of that death. And
2 the cause of death would then try to fit into one of
3 these three language categories that we talked about
4 previously.

5 Sometimes there's a section we call other
6 significant conditions. And for death certification
7 there is actually a spot on a death certificate that
8 allows for other significant conditions. And what
9 that -- the way that that reads is that there are other
10 significant conditions -- other significant conditions
11 contributing to the cause of death but that are not
12 related to the underlying cause of death as stated above.
13 Because it's below on the death certificate it says it
14 above in line. So one of the line numbers there.

15 For example, if we have an individual that has a
16 whole bunch of natural diseases, they're treated for
17 coronary artery disease, they have histories of myocardia
18 infarction or heart attacks, they have hypertension, they
19 have diabetes, they're smokers so they have COPD,
20 they're -- they drink a lot so they have fatty liver and
21 alcohol disorder, all of these -- any one of these things
22 from a reasonable certainty could lead to somebody to
23 die. Well, we have to pick one. As a medical doctor we
24 can only list one of them as the main cause of death for
25 an individual. So we're stuck with trying to decide on
26 just one.

1 So given that history I would opine that he died
2 as a result of his underlying heart disease, his coronary
3 arteries, atherosclerosis of the heart, coronary arteries
4 de graffitis, and cardiovascular disease. However, he
5 has all these other things that are -- or she has all
6 these other conditions that are making them debilitated.
7 And they are going to contribute some way to the demise,
8 but they are not directly related to that one particular
9 entity. They have other affects on the body. You know.
10 And so they're going to contribute because they are
11 making this person much susceptible to death in general.

12 So as to this other significant condition I
13 would then make a laundry list of the other things that
14 this person had -- diabetes, hypertension, COPD -- that
15 are all going to contribute to the debility of this
16 individual, but my main reason that this person died is
17 related to just this sole entity. And so they're
18 contributing to the death, but they're not necessarily
19 related to them. So sometimes in these particular cases
20 where we had more intact individuals and we had some
21 history and we can see things at the time of autopsy --
22 at the time of the autopsy, the ultimate reason that they
23 may have passed.

24 For example, I'm looking at one here just as an
25 example. It's thermal injuries. So in that particular
26 case there was something that we couldn't show that they

1 inhaled the smoke, but we had enough evidence that there
2 was -- it was related to the burning of the body and --
3 but this person had an enlarged heart. And an enlarged
4 heart can cause somebody to die anyway. It's another
5 really strong competer, you know, for a reason for
6 somebody to die.

7 So the enlarged heart could represent a lot of
8 underlying conditions that would make this person more
9 debilitated. They would make them more susceptible to
10 death, make them more susceptible to succumb to some
11 outside stressor, but it's not related to that particular
12 stressor which in this case was the fire.

13 And so maybe there was some aberrations in the
14 toxicology and it was like, well, somebody that has
15 underlying conditions will die from a lower level of a
16 particular toxin than somebody that's really robust and
17 healthy where you need to have a higher level to reach
18 that toxicity because there's already problems with the
19 heart, maybe problems with the kidneys, problems with the
20 lungs.

21 So these are all going to be contributing person
22 from person who is on, you know, a titter-totter who's
23 "I'm over here. I'm kind of sick, and anything that's
24 going to add to that side is going to tip me over." So
25 it's going to contribute.

26 Now, that doesn't mean that it trumps the

1 underlying cause of death. It's just a factor that we're
2 using to say that somebody else could look at this and
3 say "Well, this is not that much injury due to the fire
4 and not that much high elevation of carbon monoxide."

5 Well, maybe for a robust 20-year-old athlete that may
6 not -- that -- none of that may have played a role from
7 those fire-related injuries. But in somebody that has an
8 underlying potential heart disease it's a bigger factor
9 that is going to say that that individual is more likely
10 to succumb to those particular things that were involved
11 with that individual at the time of autopsy.

12 So they're going to contribute. And so they'll
13 be some in here that you may come across that will be
14 listing different things that are there.

15 Q. I want to get into the elements of an autopsy
16 report. But before I forget, if someone was injured in
17 the fire and they were transported to Sacramento and then
18 later died in Sacramento, what would the process be?
19 Would there be an autopsy or would the coroner's office
20 be involved in any way?

21 A. Yes. The coroner's office would be involved to
22 some degree. So this -- it would be -- the reason that
23 it would be -- we at the coroner's office in Sacramento
24 would be involved is because it is a result of an
25 unnatural death. There's something that was unnatural
26 about this person's death; the burns or the fire injuries

1 or whatever was created. And so that death would
2 hopefully be reported to the coroner's office. Our --
3 and so then in our situation our coroner would get a
4 report from the hospital or the skilled nursing facility,
5 or wherever they may have been and our deputy coroner
6 would investigate the death, gather as much information,
7 say "Okay. Whoa. This is a person from Butte County.
8 They were involved in the fire. They had burns. They
9 were life-flighted to U.C. Davis or Shriners. They were
10 taken care of."

11 Okay. So depending on the situation, if
12 there's -- if that doctor -- because let's say they've
13 been in the hospital for many, many, many weeks or days
14 and the doctor at the hospital is willing to sign the
15 death certificate as, you know, complications of
16 fire-related injuries or some other wording that would
17 indicate that it's a result of that unnatural component.
18 Our office could either decide we're going to bring that
19 case in and we're going to perform an exam, an autopsy,
20 an external exam just to look at the body, or do a full
21 autopsy or say "We're going to let this doctor sign it,
22 but we're going to take jurisdiction and certify the
23 death as unnatural or as an accidental death due to the
24 fire, give it a coroner number, and not bring the body in
25 and just say that "This is a result of a fire of an
26 injury -- you know, of fire-related injury in Butte

1 County," whatever, however detailed they wanted to get in
2 their description.

3 And so there's different pathways, but it could
4 be captured. I think there were a couple where that was
5 the case. You know, the facility or the trauma center.
6 We get -- it happens with a lot of other cases as well.

7 Q. And so in the example you gave you basically get
8 all the information and then you're like "Okay. Yeah, we
9 agree with the doctor and we're going to certify that
10 cause of death." Is that essentially --

11 A. The coroner would, yes. Not myself or the
12 pathologists. The coroner would work with the attending
13 physician at the hospital or wherever they're at or
14 whatever facility, and they would come to some use of
15 "Hey, this is how you need to describe this" or whatnot.

16 Q. Okay. Can you tell us generally what the
17 elements of an autopsy report would be especially in this
18 situation where you might not have all the same ones you
19 normally do.

20 So, for example, if there are any witnesses to
21 an autopsy, would they be listed?

22 A. They would. In some cases they're listed or in
23 some situations they're not. It just depends. We don't
24 list everybody that's involved in the autopsy on our
25 reports necessarily. Usually, when there's like law
26 enforcement or somebody that's coming or that's going to,

1 we try to do that. And it's just -- just our operating
2 procedures.

3 I believe Dr. Resk lists lots of people. So
4 whoever was there. And that's his style, which is fine.
5 And there is no right or wrong for that.

6 But so when you say autopsy report, are you --

7 Q. I will kind of do it step by step.

8 A. Okay.

9 Q. Because I might not be using the right
10 nomenclature.

11 So is any identification information the -- and
12 when I say "you," I mean the coroner's office or the
13 pathologist doing the autopsy.

14 If there's -- if the -- if there's any
15 identification information that accompanies the body, is
16 that included in the report?

17 A. Yes.

18 Q. Is a list of clothing and personal effects, if
19 any are present, is that included?

20 A. Yes.

21 Q. If there was any physical evidence of injury,
22 would that be included?

23 A. Yes.

24 Q. And then is there an examination that is done
25 that kind of lists whatever it is that the pathologist
26 sees and any samples that might be taken or submitted for

1 toxicology or any other testing? Is there a section that
2 goes through the examination?

3 A. Yes.

4 Q. And then would it mention if toxicology was
5 done, if x-rays were done, or is that not always the
6 case?

7 A. Usually, it is the case. And again, some of
8 that starts to get more stylistic on individual
9 pathologists whether they listed it or not, yeah.

10 Q. And then is there also generally a section that
11 would list if any representative samples were retained
12 for any reason?

13 A. Yes.

14 Q. Okay. And were all of those steps done in every
15 case related to people whose remains were found in the
16 fire zone following the Camp Fire that went to your
17 office to the extent that it's possible to do all those
18 steps?

19 A. Yes, I believe it was.

20 Q. Okay. Were autopsy reports prepared for every
21 person whose remains were located in the fire zone?

22 A. Yes.

23 Q. And were the autopsy reports made in the regular
24 course of business?

25 A. Yes.

26 Q. Were they made at or near the time of the

1 autopsies?

2 A. Yes.

3 Q. And did you personally do every autopsy for
4 every person whose remains were found in the fire zone
5 after the Camp Fire?

6 A. No, I did not.

7 Q. Okay. Who performed the autopsies?

8 A. There were a number of -- we have our staff
9 pathologists. There are --

10 Do you want their names or do you want just how
11 many? Because there's about five or six of us in total
12 that actually participated in this -- these exams. At
13 our Sacramento County Coroner Office there's five of us
14 and then we had an outside person and Dr. Resk as well.

15 Q. Okay. Who is Dr. Resk?

16 A. He's the Butte County -- he was -- at this time
17 he was doing most of Butte County's autopsies.

18 Q. And he's retired?

19 A. He's retired.

20 Q. Okay. Are these all qualified forensic
21 pathologists?

22 A. They are all board certified qualified
23 pathologists.

24 Q. And this is what they do for a living?

25 A. Correct.

26 Q. And so you said that you had the -- I think the

1 five from your office and then you said there was one
2 other and Dr. Resk. Where did the other ones come from
3 if you know?

4 A. He's from Placer County. Dr. Reiber. He's
5 worked for Placer and he's worked for Sacramento County.
6 He was in Sacramento County when I started.

7 Q. So these -- all of these forensic pathologists
8 then were acting as public employees as they were doing
9 these autopsies? They weren't being paid privately by
10 families to do them or anything?

11 A. No. We were -- the Sacramento County I know for
12 sure we were working in our capacity as county employees.
13 I assume Dr. Resk was at that time still working for
14 Butte in his capacity there.

15 As for Mr. Reiber I don't know if he came in as
16 a contractor for us to assist us or if it was through his
17 facility. I don't know all the details of how he was
18 getting paid or if he was going to get paid for the exams
19 that he did. He could have just been saying "I'm going
20 to step up." So I don't know the answer for his
21 component.

22 Q. Okay. Did you personally review the factual
23 portions of each autopsy? And when I say the factual
24 portions, I mean all the information, the examinations,
25 any test results that came in that were run? Essentially
26 everything except for the conclusion.

1 A. For preparation for today, yes. I did go back
2 through every report. I looked at the photos. I looked
3 at whatever information we still had of people.

4 Q. And as chief forensic pathologist is it common
5 for you to review and approve reports and conclusions of
6 pathologists or do you ever do that?

7 A. I do that on occasion. It's not -- I don't have
8 ultimate say. You know, I'll never ask one of my
9 pathologists to change their diagnosis for anything
10 because they're sound physicians. But we have a process
11 in our facility where we do quality control, quality
12 improvement, and quality assurance. And it's actually
13 part of our actual board certification that we need to
14 participate in that process.

15 So I do review a lot of reports. We all share
16 reports with each other. And so it's pretty custom for
17 me to see some reports of my other -- of my staff and say
18 whether I agree or disagree or "Hey, what about this?"
19 and look for quality improvement, quality assurance. And
20 so I do review those. It's not necessarily in my job
21 description to say I need to approve every report, you
22 know, but I do participate in that aspect of it.

23 Q. Okay. Now, you said that you have -- you
24 reviewed all of the autopsy reports for the victims who
25 remained and were located in the fire zone of the Camp
26 Fire?

1 A. Yes.

2 Q. And based on that review did you form your own
3 conclusion as to the cause of death for each person?

4 A. I did.

5 Q. I'm going to switch gears a little bit. Were
6 identifications made for all the remains found in the
7 fire zone either at or through the Sacramento Coroner's
8 Office?

9 A. The remains were identified. And where we could
10 do it at our facility we did. I don't know the
11 intricacies of all of that. We were applying that rapid
12 DNA technology. We were utilizing it at our facility.
13 Whether or not things were actually made at DOJ or
14 something because whatever purpose I don't know the
15 answer to that.

16 But ultimately, any remains that were identified
17 through DNA or other means were given a name; Jane Doe or
18 John Doe or some form of that to an actual name. So they
19 were identified. And it would have been through some
20 course of action at our facility and maybe another
21 facility all but one.

22 Q. Right. There's one that remains unknown.

23 Okay. You mentioned DNA. What other means of
24 identification might there have been?

25 A. There were other things. I believe there were
26 some fingerprints that were able to be acquired. Dental

1 comparisons were utilized, hardware, surgical hardware,
2 knee replacements, et cetera. Anything that may have had
3 hardware, surgical hardware. If there was a serial
4 number, we'd try to get medical records and we were able
5 to make a few of those.

6 And circumstantial. There's just, you know, one
7 person in the house and they fit the category. And
8 through all of these other means that we used we were
9 able to just say "We think it's them."

10 Q. Okay. And were those identification procedures
11 recorded?

12 A. They were -- yeah. How they got IDed was
13 recorded, yes.

14 Q. And is it the regular course of business for the
15 Sacramento County Coroner's Office to try and identify
16 bodies?

17 A. Yes.

18 Q. So trying to get the IDs was done in the
19 ordinary course of business?

20 A. Correct.

21 Q. And were the different means by identification,
22 were they conducted by experts in their field who
23 regularly use those methods?

24 A. Yes.

25 Q. And then you said there were -- the
26 identification procedures were recorded. Were -- was a

1 report or a packet made with all the steps that were gone
2 through if you know?

3 A. For the identification?

4 Q. Yes.

5 A. Yeah. There would be some form of a trail of
6 the tissue or samples that we used whether it was DNA or
7 whether it is fingerprints or something, yeah.

8 Q. Okay. Were those reports to your knowledge made
9 or recorded at or near the time the identification was
10 made?

11 A. Yes.

12 Q. And in the ordinary course of business does the
13 Sacramento County Coroner's Office rely on those
14 identification reports?

15 A. Yes.

16 Q. And then does the Sacramento County Coroner's
17 Office retain these records in the ordinary course of
18 business?

19 A. Yes, they do.

20 [Pause in proceedings.]

21 **EXAMINATION**

22 BY MR. NOEL:

23 Q. Dr. Tovar, a couple of follow-up questions real
24 quick.

25 A. Sure.

26 Q. You've used two different terms. You work for

1 the Sacramento County Coroner who you identified as Kim
2 Gin and you're a forensic pathologist. Can you explain
3 for us what the difference is between who you work for
4 and what you do.

5 A. Yes. So I work for Sacramento County in their
6 coroner's office. Our coroner office is a -- I'll give
7 you a little bit of background because it's important
8 because it's different than the Butte County office.

9 So our coroner's office is an independent
10 coroner office. It's governed by the Board of Directors
11 for Sacramento County. Sacramento County directs or
12 appoints a coroner. The coroner is the head of the
13 department at our facility. It's Kim Gin. So she's the
14 coroner. So she's the manager or the head of the
15 department.

16 And under her are two divisions. We'll call
17 them two divisions. There's the investigation component
18 and there is the medical component. So the investigation
19 component are the deputy coroners that are responsible
20 for investigating the circumstances surrounding an
21 individual's death. They're not -- they're deputized,
22 but they are not necessarily law enforcement.

23 So their job is to figure out what surrounded
24 the potential reason that this individual is dead. They
25 would go to a scene. They would talk to family. They
26 gather history. They gather information. They try to

1 figure out who this person's doctor is. They look into
2 all of these things.

3 And if it's a homicide, for example, they'll
4 deal with law enforcement who is actually investigating
5 the crime. They won't investigate the crime themselves.
6 They leave that to that jurisdiction, but they get
7 information, gather information. So that information is
8 the investigation deputy coroner's side of the
9 department.

10 As a forensic pathologist, I am -- we're charged
11 with determining why, a reason a person has died, their
12 cause of death. The cause of death could only be put on
13 to an individual by a physician. So the coroner needs
14 physicians in order to write a cause of death. And so as
15 a forensic pathologist my goal and our team is to
16 determine why an individual has passed away.

17 The coroner has another obligation as well.
18 They are going to apply a manner of death. Manner of
19 death in California -- there are five. There's natural
20 death, accidental, homicide, suicide, and an undetermined
21 category. They are going to apply that depending on the
22 cause of death and the circumstances surrounding the
23 death.

24 So as our agency is in play, we are together and
25 communicate, but we have two different things. So I work
26 for the coroner's office in the capacity of a physician,

1 a forensic pathologist to determine the cause of death.
2 And we're stand alone.

3 Butte County is actually a sheriff coroner. And
4 most or many jurisdictions cover sheriff coroners.
5 They're in a coroner's division under their sheriff
6 deputy. It's just a little nuance there. But in the
7 end, that is my capacity there.

8 And I think it's important to understand a
9 little bit more about our involvement of this. And I
10 want to talk a little bit because it kind of fits into
11 it. So ultimately, the overriding agency that is
12 responsible for all of these cases is Butte County.
13 Okay. They're the ones that are going to -- based on the
14 information that we give, they can agree with
15 circumstantial evidence for identification.

16 There could be -- they could utilize the
17 information that was available or whatever, but their
18 goal ultimately is the governing agency. And it's based
19 upon our findings at autopsy.

20 The coroner's office really supplies only a
21 facility, staffing, assistance, whatever kind of
22 technical aspects of it. As the forensic pathologists we
23 are working as coroner employees of Sacramento County and
24 as under a contract with Butte County to provide those
25 services as well and then part of the mutual aid
26 component.

1 So our findings at autopsy were then relayed in
2 a report to Butte County, and Butte County would then
3 also apply a manner of death. Our office wasn't involved
4 with that because we're not the governing agency of this.
5 Butte County was. So our reports are from the
6 pathologists in Sacramento County, but some of the other
7 things that I have described were then applied to by
8 Butte County.

9 Okay. So their -- you know, some identification
10 was probably done through circumstantial evidence that
11 may have been applied that way. So we would try to help
12 them with fingerprints and DNA. We were running all of
13 that. But in the end, all those things are generated.
14 "This is who we think this is." Okay. "This is their
15 name." That was the ultimate decision of Butte County.

16 Q. Okay. Backing up here to Exhibit 1056, the
17 examination flowchart, what is anthropology?

18 A. Anthropology is the -- a field of science where
19 they deal with bones. They're able to look at bones and
20 come to some determination as to whether -- what length,
21 what heritage they're from, what ancestry, male, female,
22 human, nonhuman. They deal with looking at bones in
23 order to come to some conclusions about that particular
24 bone itself.

25 Q. Is it common for a forensic pathologist like
26 yourself to work together with the anthropologists to

1 determine a cause of death?

2 A. Yes.

3 Q. And is it scientifically accepted for you to do
4 so?

5 A. Yeah. To work together? Yeah.

6 Q. Yeah.

7 A. I mean, yeah.

8 Q. So it's scientifically accepted or it's accepted
9 in the community between the pathologists that you can
10 rely upon for the conclusions and the investigation of an
11 anthropologist?

12 A. Yes.

13 Q. Okay. Odontology. What is odontology?

14 A. That's -- I'll probably get dinged for this.
15 Dentistry, if you will. But it's basically using teeth,
16 jaw structures in order to -- well, in our cases they are
17 not just dentists. Most of them are dentists, but they
18 have a -- many times they have a subspecialty in forensic
19 odontology. It's a practice where you can look at dental
20 x-rays from somebody who's had a lot of restoration and
21 somebody that is unidentified and you don't know who this
22 person is. And you can compare those x-rays and chart
23 the teeth and look at all these things together as a
24 forensic pathologist.

25 And as a medical doctor I can't look at a dental
26 chart and, you know, have some rudimentary background. I

1 can't say "Yep, that's this individual's crown and that
2 matches here." That is their field. So they can
3 positively identify people from the structures of the
4 mouth and the teeth and the restoration that may have
5 been done.

6 Q. Is it common as a forensic pathologist to work
7 with forensic odontologists in the normal course of your
8 autopsies and coroner's reports?

9 A. Yes, it is.

10 Q. And is it scientifically accepted as appropriate
11 to do so?

12 A. Yes.

13 Q. And finally, what is toxicology?

14 A. Toxicology is the -- it's a study of drugs,
15 toxins, poisons, anything that potentially could be
16 ingested or administered, any of that when looking at
17 those particular compounds in blood or in tissues.

18 They do a lot more than just that. I mean,
19 they're developing protocols to create tests in order
20 to -- platforms to test things as well and look at the
21 data and interpret that data. They will provide
22 information about how drugs get distributed in the body,
23 but they will not say whether or not they killed that
24 person.

25 So we use them routinely. We use their labs
26 routinely. We use the information that is provided from

1 them routinely. It's scientifically accepted.

2 Q. Is it scientifically accepted as a forensic
3 pathologist to rely upon the test and results of the
4 toxicologist?

5 A. Yes.

6 MR. NOEL: All right. Ready to start going?

7 MS. DUPRE-TOKOS: We should take a break.

8 MR. NOEL: This would be a great time for a
9 break. We've been going about an hour and 15 minutes.

10 GRAND JURY FOREPERSON: Fifteen minutes.

11 MR. NOEL: Yep.

12 MS. DUPRE-TOKOS: And she needs to give an
13 admonition.

14 THE WITNESS: Sorry?

15 MS. DUPRE-TOKOS: And you need to receive an
16 admonition from madam foreperson.

17 GRAND JURY FOREPERSON: Sorry. I was busy doing
18 this.

19 Dr. Tovar, you are admonished not to discuss or
20 disclose at any time outside of this jury room the
21 questions that have been asked of you or your answers
22 until authorized by this grand jury or the Court. A
23 violation of these instructions on your part may be the
24 basis for a charge against you of contempt of court.
25 This does not preclude you from discussing your legal
26 rights with your own attorney.

1 Dr. Tovar, what I have just said is a warning
2 not to discuss this case with anyone except the Court,
3 your lawyer, or the district attorney.

4 Do you have any questions?

5 THE WITNESS: No.

6 GRAND JURY FOREPERSON: Thank you.

7 THE WITNESS: Thank you.

8 [Recess taken from

9 10:15 until 10:38 a.m.]

10 GRAND JURY FOREPERSON: All members of the grand
11 jury are present and ready to proceed. We are ready to
12 proceed.

13 MS. DUPRE-TOKOS: Okay. You ready?

14 THE WITNESS: I am.

15 **FURTHER EXAMINATION**

16 [Exhibit 1059 introduced
17 as evidence.]

18 BY MS. DUPRE-TOKOS:

19 Q. Okay. In front of you you should have
20 Exhibit 1059. Do you see that in front of you in one of
21 those stacks?

22 A. I do.

23 Q. Okay. Can you tell us what that document is.

24 A. This is the autopsy report drafted by Dr. Resk
25 for -- at the time of the autopsy it was an unknown
26 individual. It's for Sacramento County Coroner case

1 number B18-102 and the Butte County Sheriff coroner case
2 number 18-19836.

3 Q. Okay. Were the standard procedures that were in
4 place followed for this autopsy?

5 A. To my understanding, yes.

6 Q. And everything you could see in the report?

7 A. Yes.

8 Q. And did you review all the facts and procedures
9 in the report?

10 A. I did.

11 Q. Did you reach your own conclusion as to the
12 cause of death?

13 A. Yes, I did.

14 Q. And what was your conclusion?

15 A. Fire-related injuries.

16 [Exhibit 1060 introduced
17 as evidence.]

18 BY MS. DUPRE-TOKOS:

19 Q. And then looking at Exhibit 1060, do you have
20 that in front of you? It should be clipped to --
21 hopefully. If you could undo the clip, it might be
22 easier. And this one may be a little different.

23 Is it there?

24 A. I don't have it.

25 Q. Okay. Well, do you recognize what is on the
26 screen as Exhibit 1060?

1 A. I do, yeah.

2 Q. And what is that?

3 A. This is the -- and I guess as it reads it's a
4 identification summary report. I will refer to it as
5 that. It just basically shows how the individual is
6 identified, by what means, and signed off by Coroner Gin
7 and by the DNA doctor Dr. Selden.

8 Q. Okay. And does it have the Sacramento coroner
9 case number on it?

10 A. Yes, it does at the top there. Yeah, 102 and
11 the Butte County number.

12 Q. Okay. Same as on the autopsy report?

13 A. Yes, it is.

14 Q. And so does that identify the remains associated
15 with Butte County case number 18-19836 as Herbert
16 Alderman?

17 A. Yes, it does.

18 And I'm just -- I'll reference -- I think for
19 most of Dr. Resk's autopsies this Sacramento County
20 coroner number is going to differ a little bit only that
21 he didn't have the two leading zeros for his numbers.

22 Q. Okay.

23 A. But it did reference that so . . .

24 Q. Okay. Thank you.

25 [Exhibit 1061 introduced
26 as evidence.]

1 BY MS. DUPRE-TOKOS:

2 Q. And then looking at Exhibit 1061.

3 A. Yes.

4 Q. Can you tell us what that document is.

5 A. This is a autopsy report for Teresa Ammons.

6 Q. Does it have the Sacramento County case number
7 on it?

8 A. It has our case number at the top with the case
9 number B18-0058 and the Butte County coroner number
10 18-19598.

11 Q. Were the standard procedures followed for
12 Ms. Ammons' autopsy?

13 A. Yes.

14 Q. And did you review all the facts and procedures
15 in this autopsy?

16 A. I did.

17 Q. Did you reach your own conclusion as to
18 Ms. Ammons' cause of death?

19 A. Yes, I did.

20 Q. What was your conclusion?

21 A. Thermal injury.

22 [Exhibit 1062 introduced
23 as evidence.]

24 BY MS. DUPRE-TOKOS:

25 Q. And then looking at Exhibit 1062 which is
26 hopefully clipped to 1061.

1 A. Yes.

2 Q. Okay. Can you tell us what that document is.

3 A. This is an identification summary report.

4 Q. And who is that for?

5 A. Teresa Ammons.

6 Q. Does it have the Sacramento County coroner case
7 number on it?

8 A. Yes, it does.

9 Q. And does it have the Butte County case number on
10 it?

11 A. Yes, it does.

12 Q. And is that case number 18-19598?

13 A. Yes.

14 Q. And does it identify the remains associated with
15 that Butte County case number as Teresa Ammons?

16 A. Yes, it does.

17 [Exhibit 1063 introduced
18 as evidence.]

19 BY MS. DUPRE-TOKOS:

20 Q. And then going to Exhibit 1063.

21 A. This is one of my autopsy reports indicating
22 Sacramento County case number B18-00021 and Butte County
23 18-19533.

24 Q. And were the standard procedures followed for
25 that autopsy?

26 A. Yes, they were.

1 Q. And did you -- well, you said this was yours
2 so . . .

3 A. I agree with myself.

4 Q. So you reviewed all the facts and procedures in
5 this autopsy report?

6 A. I did.

7 Q. And what was your conclusion as to the cause of
8 death?

9 A. Thermal injuries.

10 [Exhibit 1064 introduced
11 as evidence.]

12 BY MS. DUPRE-TOKOS:

13 Q. And then looking at Exhibit 1064 which again is
14 hopefully clipped to it.

15 A. Yes, it is.

16 Q. What is that document?

17 A. This is the identification summary report. It
18 lists both the Sacramento County and Butte County IDs,
19 case numbers, and it refers to this individual being
20 identified as Rafaela Andrade.

21 Q. And so it identifies the remains associated with
22 Butte County case number 18-19533 as Rafaela Andrade?

23 A. Correct.

24 [Exhibit 1065 introduced
25 as evidence.]

26 BY MS. DUPRE-TOKOS:

1 Q. And then going to Exhibit 1065.

2 And there's an empty box next to you. If it's
3 easier for you, you can put them in there or just stack
4 them up. Whatever your preference is.

5 A. Okay.

6 Q. Okay. Exhibit 1065. Can you tell us what that
7 document is.

8 A. This is an autopsy report drafted by Dr. Resk
9 for Sacramento County case number B18-96 and 18 -- Butte
10 County number 18-19764 of Carol Ann Arrington.

11 Q. Were the standard procedures followed for
12 Ms. Arrington's autopsy?

13 A. Yes.

14 Q. And did you review all the facts and procedures
15 of Ms. Arrington's autopsy?

16 A. Yes, I did.

17 Q. Did you reach your own conclusion as to her
18 cause of death?

19 A. Yes, I did.

20 Q. What was your conclusion?

21 A. Fire-related injuries.

22 [Exhibit 1066 introduced
23 as evidence.]

24 BY MS. DUPRE-TOKOS:

25 Q. And then Exhibit 1066.

26 A. This is the identification summary report. This

1 was identified by odontology for Sacramento County case
2 number B18-00096 and Butte County 18-19764. It
3 identified the decedent as Carol Arrington.

4 [Exhibit 1067 introduced
5 as evidence.]

6 BY MS. DUPRE-TOKOS:

7 Q. Okay. And Exhibit 1067. Could you tell us what
8 that document is.

9 A. This is a report drafted by Dr. Raven for
10 Sacramento County case number B18-00057 and Butte County
11 case number 18-19599 for Julian Binstock.

12 Q. Was standard procedures followed for
13 Mr. Binstock's autopsy?

14 A. Yes, they were.

15 Q. And did you review all the facts and procedures
16 in the autopsy?

17 A. Yes, I did.

18 Q. Did you reach your own conclusion as to
19 Mr. Binstock's cause of death?

20 A. Yes, I did.

21 Q. What was your conclusion?

22 A. Thermal injuries.

23 [Exhibit 1068 introduced
24 as evidence.]

25 BY MS. DUPRE-TOKOS:

26 Q. And Exhibit 1068. Can you tell us what that

1 document is.

2 A. This is the identification summary report for
3 Sacramento County case number B18-00057 and Butte County
4 18-19599 identifying the decedent as Julian G. Binstock.

5 [Exhibit 1069 introduced
6 as evidence.]

7 BY MS. DUPRE-TOKOS:

8 Q. Exhibit 1069.

9 A. This is an autopsy report drafted by Dr. Su for
10 Sacramento County case number B18-00043 and Butte
11 County -- it doesn't list the Butte County number on this
12 particular one.

13 Q. Okay. And did this autopsy follow the standard
14 procedures?

15 A. Yes, it did.

16 Q. And did you review all the facts and procedures
17 in this autopsy?

18 A. Yes, I did.

19 Q. And who is the autopsy for? Does it state?

20 A. This is for David Bradburd.

21 Q. Did you reach your own conclusion as to
22 Mr. Bradburd's cause of death?

23 A. Yes, I did.

24 Q. And what was that conclusion?

25 A. Thermal injuries and smoke inhalation.

26 [Exhibit 1070 introduced

1 as evidence.]

2 BY MS. DUPRE-TOKOS:

3 Q. And we're going to show you what has been marked
4 as Exhibit --

5 MS. DUPRE-TOKOS: What number?

6 MR. NOEL: 1070.

7 MS. DUPRE-TOKOS:

8 Q. Exhibit 1070. Can you tell us what that is.

9 A. This is an identification addendum from County
10 of Sacramento from deputy -- from Supervising Deputy
11 Coroner Allyson Rogers, I believe.

12 Q. And does it make a correction? I know we
13 haven't gotten to it yet, but does it make a correction
14 to the identification summary report?

15 A. It does, yes.

16 Q. And what is that correction?

17 A. It --

18 Q. Does it correct the spelling of Mr. --

19 A. Yeah. There's -- I'm trying to figure out what
20 it's actually correcting because I think I have -- I
21 think the first identification summary in the packet is
22 the same.

23 Q. Okay.

24 A. But it does say that it was -- the spelling was
25 changed.

26 Q. On Mr. Bradburd's name?

1 A. Bradburd, yes.

2 Q. Okay. In looking at Exhibit 1069 it looks like
3 there's a whole lot of information there then we have
4 seen on some of the other autopsy reports.

5 Can you explain that to us. We don't need to go
6 into all the different findings, but if you could just
7 explain a little bit about this.

8 A. So this is a report where there was more
9 remains, if you will. Probably a more intact body. And
10 basically in this report you can see under the autopsy
11 findings the main heading there one through five it talks
12 about what the thermal injuries were that were identified
13 and some underlying natural conditions that this
14 individual had with his heart, his kidneys.

15 It talks about what other ancillary reports were
16 created for this process, the anthropology, and then, of
17 course, the toxicology findings. It states a cause of
18 death and it also puts in an opinion from the pathologist
19 as to why he favored this particular cause of death.

20 Q. Okay. So under "Autopsy Findings" where it says
21 "thermal injuries," is that a list of essentially the
22 different thermal injuries that were observed? So for
23 example "Second to fourth-degree burns over 100 percent
24 of the body surface."

25 A. Yes.

26 Q. And then black carbonization matter or soot

1 identified in the larynx?

2 A. Yes.

3 Q. And then that is what you were talking about
4 earlier with the (indicating)?

5 A. Yes.

6 Q. Okay. And then looking at Exhibit 1070 can you
7 tell us what that is.

8 A. This is the -- this is the identification of --

9 Q. Oh, I'll amend the second 1070 to a 1070-A. And
10 I'll do that right now.

11 [Exhibit 1070-A marked
12 as evidence.]

13 BY MS. DUPRE-TOKOS:

14 Q. So this is 1070 and then the one we corrected
15 that we gave you is 1070-A.

16 A. Okay.

17 Q. So looking at regular 1070 will you tell us
18 about this.

19 A. So this is the original identification summary
20 report with the Sacramento County case number 18-00043
21 and the Butte County 19499 where the name is spelled
22 David Bradburgh, B-r-a-d-b-u-r-g-h.

23 Q. Okay. And does it identify the remains as David
24 Bradburgh associated with that case number?

25 A. Yes, it does.

26 Q. The Butte County case number?

1 A. Yes, it does.

2 Q. And then the correction sheet just corrects, as
3 you've stated, the spelling of the last name to what?

4 A. Bradburd, B-r-a-d-b-u-r-d.

5 [Exhibit 1071 introduced
6 as evidence.]

7 BY MS. DUPRE-TOKOS:

8 Q. And then going to Exhibit 1071.

9 A. This is an autopsy report drafted by Dr. Resk
10 for Cheryl Brown, Sacramento County number B18-73 and
11 Butte County case number 18-19675.

12 Q. Okay. And were standard procedures followed for
13 Ms. Brown's autopsy?

14 A. Yes, they were.

15 Q. And did you review all the facts and procedures
16 in this autopsy?

17 A. Yes, I did.

18 Q. Did you reach your own conclusion as to
19 Ms. Brown's cause of death?

20 A. Yes, I did.

21 Q. What was your conclusion?

22 A. Fire-related injuries.

23 [Exhibit 1072 introduced
24 as evidence.]

25 BY MS. DUPRE-TOKOS:

26 Q. And then looking at Exhibit 1072, could you tell

1 us what that document is.

2 A. This is the identification summary report for
3 Sacramento County case number B18-00073 and the Butte
4 County number 18-19675 indicating that the decedent is
5 Cheryl Brown.

6 [Exhibit 1073 introduced
7 as evidence.]

8 BY MS. DUPRE-TOKOS:

9 Q. And Exhibit 1073.

10 A. Autopsy report from Dr. Resk for Sacramento
11 County case B18-72 and Butte County case 18-19674 for a
12 Larry Brown.

13 Q. And were the standard procedures followed for
14 this autopsy?

15 A. Yes, they were.

16 Q. Did you review all the facts and procedures in
17 Mr. Brown's autopsy?

18 A. Yes, I did.

19 Q. Did you reach your own conclusion as to
20 Mr. Brown's cause of death?

21 A. Yes, I did.

22 Q. And what was your conclusion?

23 A. Fire-related injuries.

24 [Exhibit 1074 introduced
25 as evidence.]

26 BY MS. DUPRE-TOKOS:

1 Q. And Exhibit 1074. Can you tell us what that
2 document is.

3 A. This would be identification summary report for
4 case numbers Sacramento B18-00072 and Butte County
5 18-19674 identifying the decedent as Larry Brown.

6 [Exhibit 1075 introduced
7 as evidence.]

8 BY MS. DUPRE-TOKOS:

9 Q. And Exhibit 1075.

10 A. This is the autopsy report from Dr. Resk for
11 Sacramento County case B18-70 and Butte County number
12 18-19697 for Richard Brown.

13 Q. Were the standard procedures followed for this
14 autopsy?

15 A. Yes, they were.

16 Q. And did you review all the facts and procedures
17 in Mr. Brown's autopsy?

18 A. Yes, I did.

19 Q. Did you reach your own conclusion as to
20 Mr. Brown's cause of death?

21 A. Yes, I did.

22 Q. And what was your conclusion?

23 A. Fire-related injuries.

24 [Exhibit 1076 introduced
25 as evidence.]

26 BY MS. DUPRE-TOKOS:

1 Q. Exhibit 1076. So could you tell us what that
2 document is.

3 A. The identification summary report for Richard
4 Brown for Sacramento case B18-00070 and Butte County
5 18-19697.

6 Q. And who does it identify the decedent as?

7 A. Richard Brown.

8 [Exhibit 1077 introduced
9 as evidence.]

10 BY MS. DUPRE-TOKOS:

11 Q. Exhibit 1077.

12 A. This is my autopsy report for Andrew Burt,
13 Sacramento County number B18-00032 and Butte County case
14 number 18-19487.

15 Q. And did you follow all the standard procedures?

16 A. Yes, I did.

17 Q. And what was your conclusion as to the cause of
18 death?

19 A. Thermal injuries.

20 Q. And you also have another finding on there.

21 A. Yes. Ethenol intoxication is a finding.

22 Q. But not the cause of death?

23 A. No.

24 [Exhibit 1078 introduced
25 as evidence.]

26 BY MS. DUPRE-TOKOS:

1 Q. And then Exhibit 1078. Could you tell us what
2 this document is.

3 A. This is the identification summary report
4 identifying the decedent as Andrew Burt for case number
5 Sacramento B18-00032 and Butte County number 18-19487.

6 [Exhibit 1079 introduced
7 as evidence.]

8 BY MS. DUPRE-TOKOS:

9 Q. Okay. Exhibit 1079.

10 A. This is the autopsy report of Dr. Resk for
11 Joanne Caddy, Sacramento County case number B18-82 and
12 Butte County number 18-19701.

13 Q. And were the standard procedures followed for
14 Ms. Caddy's autopsy?

15 A. Yes, they were.

16 Q. And did you review all the facts and procedures
17 in Ms. Caddy's autopsy?

18 A. Yes, I did.

19 Q. Did you reach your own conclusion as to
20 Ms. Caddy's cause of death?

21 A. Yes, I did.

22 Q. What was your conclusion?

23 A. Fire-related injuries.

24 [Exhibit 1080 introduced
25 as evidence.]

26 BY MS. DUPRE-TOKOS:

1 Q. And Exhibit 1080. If you could tell us what
2 that document is.

3 A. This is the identification summary report for
4 Sacramento County case number B18-00082 and Butte County
5 case number 18-19701 identifying the decedent as Joanne
6 Marie Caddy.

7 [Exhibit 1081 introduced
8 as evidence.]

9 BY MS. DUPRE-TOKOS:

10 Q. Exhibit 1081.

11 A. This is the autopsy report drafted by
12 Dr. Reiber, R-e-i-b-e-r, for Barbara Carlson, Sacramento
13 County case number B18-00047 and agency -- Butte County
14 18-19573.

15 Q. And were the standard procedures followed for
16 Ms. Carlson's autopsy?

17 A. Yes, they were.

18 Q. Did you review all the facts and procedures in
19 this autopsy?

20 A. Yes, I did.

21 Q. Did you reach your own conclusion as to the
22 cause of death?

23 A. Yes, I did.

24 Q. What was your conclusion?

25 A. Fire-related injuries.

26 [Exhibit 1082 introduced

1 as evidence.]

2 BY MS. DUPRE-TOKOS:

3 Q. And Exhibit 1082. Could you tell us what this
4 document is.

5 A. This is the identification summary report for
6 Sacramento County case B18-00047 and Butte County case
7 number 18-19573 identifying the decedent as Barbara
8 Carlson.

9 [Exhibit 1083 introduced
10 as evidence.]

11 BY MS. DUPRE-TOKOS:

12 Q. And Exhibit 1083.

13 A. This is an autopsy report from Dr. Reiber for
14 Vincent Carota, case number Sacramento County B18-0040
15 and Butte County 18-19538.

16 Q. Were the standard procedures followed for this
17 autopsy?

18 A. Yes, they were.

19 Q. Did you review all the facts and procedures of
20 this autopsy?

21 A. Yes, I did.

22 Q. Did you reach your own conclusion as to
23 Mr. Carota's cause of death?

24 A. Yes, I did.

25 Q. And what was your conclusion?

26 A. Fire-related injuries.

1 [Exhibit 1084 introduced
2 as evidence.]

3 BY MS. DUPRE-TOKOS:

4 Q. And Exhibit 1084. Can you tell us what this
5 document is.

6 A. This is the identification summary report for
7 Sacramento County case numbers B18-00040 and B18-00052
8 and Butte County case number 18-19538 identifying the
9 decedent as Vincent Carota.

10 Q. Do you know why there would be two Sacramento
11 County case numbers?

12 A. This is likely that there were either commingled
13 remains or this individual was identified at a later
14 time. I'm going to review. I think -- so 52 was added.

15 And let me see what this refers to here. It
16 looks like when case B -- Sacramento number B18-00052
17 came in, the remains got identified through DNA and were
18 found to be the same as case B18-00040.

19 Q. So remains came in separately?

20 A. They came in separately. The other report was
21 drafted by Dr. Raven, R-a-v-e-n.

22 Q. Okay. Thank you.

23 [Exhibit 1085 introduced
24 as evidence.]

25 BY MS. DUPRE-TOKOS:

26 Q. And Exhibit 1085.

1 A. It's an autopsy report from Dr. Raven,
2 Sacramento County number B18-00027 and Butte County
3 18-19491 for Dennis Clark.

4 Q. Were the standard procedures followed for this
5 autopsy?

6 A. Yes, they were.

7 Q. And did you review all the facts and procedures
8 in the autopsy?

9 A. Yes, I did.

10 Q. Did you reach your own conclusion as to
11 Mr. Clark's cause of death?

12 A. Yes, I did.

13 Q. What was your conclusion?

14 A. Thermal injuries.

15 [Exhibit 1086 introduced
16 as evidence.]

17 BY MS. DUPRE-TOKOS:

18 Q. And then Exhibit 1086. Could you tell us what
19 that is.

20 A. This is the identification summary report for
21 Sacramento case B18-00027 and Butte County 18-19491
22 identifying the remains of Dennis Clark.

23 [Exhibit 1087 introduced
24 as evidence.]

25 BY MS. DUPRE-TOKOS:

26 Q. Exhibit 1087.

1 A. This is the autopsy report from Dr. Resk for
2 Sacramento case number B18-87 and Butte County case
3 number 18-19733. Time of drafting was an unknown
4 individual.

5 Q. Were the standard procedures followed for this
6 autopsy?

7 A. Yes, they were.

8 Q. Okay. And did you review all the facts and
9 procedures in the autopsy?

10 A. Yes, I did.

11 Q. Did you reach your own conclusion as to the
12 cause of death?

13 A. Yes, I did.

14 Q. What was your conclusion?

15 A. Fire-related injuries.

16 [Exhibit 1088 introduced
17 as evidence.]

18 BY MS. DUPRE-TOKOS:

19 Q. Is there an attached identification report?

20 A. There is a Butte County circumstantial
21 identification report, yes.

22 Q. Okay. And does that list a case number?

23 A. For Butte County it's 18-19733.

24 Q. And does that match the case number on the
25 autopsy?

26 A. Yes, it does.

1 Q. And who does it list as the decedent?

2 A. It lists Evelyn Cline.

3 Q. Thank you.

4 [Exhibit 1089 introduced
5 as evidence.]

6 BY MS. DUPRE-TOKOS:

7 Q. And Exhibit 1089.

8 A. The autopsy report from Dr. Resk for John Digby,
9 Sacramento case number B18-67 and Butte County 18-19643.

10 Q. Were the standard procedures followed for
11 Mr. Digby's autopsy?

12 A. Yes, they were.

13 Q. And did you review all the facts and procedures
14 in the autopsy?

15 A. Yes, I did.

16 Q. And did you reach your own conclusion as to
17 Dr. Digby's cause of death?

18 A. Yes, I did.

19 Q. What was your conclusion?

20 A. Fire-related injuries.

21 [Exhibit 1090 introduced
22 as evidence.]

23 BY MS. DUPRE-TOKOS:

24 Q. And Exhibit 1090. Could you tell us what this
25 document is.

26 A. This is the identification summary report for

1 Sacramento County case numbers B18-0067 and B18-00066 and
2 Butte County case number 18-19643 identifying the remains
3 in those cases as John Arthur Digby.

4 Q. And is there -- do we know why there are two
5 Sacramento County case numbers? There may be a note on
6 the cover page of 1090 or notation.

7 A. So the two cases were identified as one
8 person --

9 Q. Okay. So --

10 A. -- through anthropology.

11 Q. They came in as two separate --

12 A. They came in as two different ones.

13 [Exhibit 1091 introduced
14 as evidence.]

15 BY MS. DUPRE-TOKOS:

16 Q. Okay. And moving on to Exhibit 1091, can you
17 tell us what that is.

18 A. It's the autopsy report from Dr. Resk for Gordon
19 Dise, Sacramento County case number B18-99 and Butte
20 County 18-19775.

21 Q. And were the standard procedures followed for
22 Mr. Dise's autopsy?

23 A. Yes, they were.

24 Q. Did you review all the facts and procedures in
25 the autopsy?

26 A. Yes, I did.

1 Q. Did you reach your own conclusion as to
2 Mr. Dise's cause of death?

3 A. Yes, I did.

4 Q. What was your cause conclusion?

5 A. Fire-related injuries.

6 [Exhibit 1092 introduced
7 as evidence.]

8 BY MS. DUPRE-TOKOS:

9 Q. And Exhibit 1092.

10 A. This is the identification summary report for --
11 I don't think it's in here.

12 Q. Was it not included?

13 A. I don't think so.

14 Q. Perhaps you could look at the screen, and we'll
15 get that added at the break.

16 A. There is a blank one in here.

17 Q. Oh, how odd.

18 A. It has the number 99.

19 Q. And we will get the correct one at a lunch
20 break.

21 A. Okay. So this is the autopsy -- this is for
22 case number Sacramento B18-00099 and Butte 18-19775
23 identifying the decedent as Gordon Robert Dise.

24 It's here.

25 Q. Oh, okay. Great.

26 [Exhibit 1093 introduced

1 as evidence.]

2 BY MS. DUPRE-TOKOS:

3 Q. And Exhibit 1093. Tell us what that is.

4 A. This is the autopsy report from Dr. Raven for
5 Paula Dodge, Sacramento County number B18-0033 and Butte
6 County number 18-19544.

7 Q. Were the standard procedures followed for this
8 autopsy?

9 A. Yes, they were.

10 Q. Did you review all the facts and procedures in
11 Ms. Dodge's autopsy?

12 A. Yes, I did.

13 Q. Did you reach your own conclusion as to
14 Ms. Dodge's cause of death?

15 A. Yes, I did.

16 Q. And what was your conclusion?

17 A. Thermal injuries.

18 [Exhibit 1094 introduced
19 as evidence.]

20 BY MS. DUPRE-TOKOS:

21 Q. And then Exhibit 1094. If you could tell us
22 what that number is. Or I'm sorry. What that document
23 is.

24 A. This is the identification summary report for
25 Sacramento County number B18-00033 and Butte case number
26 18-19544 identifying the remains as Paula Dodge.

Q. And going back to the autopsy report, is there a notation in the opinion section?

A. Yes, there is.

Q. And does that indicate that additional remains were brought in under different case numbers and ultimately found to be associated with Mr. and Mrs. Dodge?

A. Yes, they do.

[Exhibit 1095 introduced
as evidence.]

BY MS. DUPRE-TOKOS:

Q. And now Exhibit 1095.

A. This is the autopsy report from Dr. Raven for Randall Dodge, Sacramento County case number B18-00026 and Butte 18-19545.

Q. And does this also have that same notation in the opinion section regarding additional remains having been found?

A. Yes, it does.

[Exhibit 1096 introduced
as evidence.]

BY MS. DUPRE-TOKOS:

Q. And then Exhibit 1096. Can you tell us what that is.

A. This is the identification report for Sacramento case number B18-00026 and B18-00061 and Butte County

1 18-19545 identifying the remains as Randall Dodge.

2 Q. And then the two Sacramento case numbers are --
3 relate back to that note in the autopsy?

4 A. That is correct.

5 [Exhibit 1097 introduced
6 as evidence.]

7 BY MS. DUPRE-TOKOS:

8 Q. And Exhibit 1097.

9 A. This is the autopsy report from Dr. Resk for
10 Andrew Downer, Sacramento case number B18-74 and Butte
11 County 18-19551.

12 Q. And were the standard procedures followed for
13 Mr. Downer's autopsy?

14 A. Yes, they were.

15 Q. And did you review all the facts and procedures
16 in Dr. Downer's autopsy?

17 A. Yes, I did.

18 Q. Did you reach your own conclusion as to
19 Mr. Downer's cause of death?

20 A. Yes, I did.

21 Q. And what was that conclusion?

22 A. Fire-related injuries.

23 [Exhibit 1098 introduced
24 as evidence.]

25 BY MS. DUPRE-TOKOS:

26 Q. And Exhibit 1098. Could you tell us what this

1 document is.

2 A. This is the identification summary report for
3 Sacramento case B18-00074 and Butte County 18-19551
4 identifying the remains of Andrew James Downer.

5 [Exhibit 1099 introduced
6 as evidence.]

7 BY MS. DUPRE-TOKOS:

8 Q. And Exhibit 1099.

9 A. This is the autopsy report from Dr. Su for
10 Robert Duvall, Sacramento case number B18-00038 and Butte
11 County -- it's not listed.

12 Q. Were the standard procedures followed for
13 Mr. Duvall's autopsy?

14 A. Yes, they were.

15 Q. And did you review all the facts and procedures
16 in Mr. Duvall's autopsy?

17 A. Yes, I did.

18 Q. Did you reach your own conclusion as to
19 Mr. Duvall's cause of death?

20 A. Yes, I did.

21 Q. And what was that conclusion?

22 A. Thermal injuries and smoke inhalation.

23 [Exhibit 1100 introduced
24 as evidence.]

25 BY MS. DUPRE-TOKOS:

26 Q. Looking at Exhibit 1100, could you tell us what

1 that is.

2 A. This is the identification summary report for
3 Sacramento case number B18-00038 and Butte 18-19489
4 identifying the remains of Robert Duvall.

5 Q. And the autopsy did not have the Butte County
6 case number, but the identification summary report has
7 the same Sacramento case number as the autopsy report
8 did?

9 A. Yes, it does.

10 [Exhibit 1102 introduced
11 as evidence.]

12 BY MS. DUPRE-TOKOS:

13 Q. Exhibit 1102.

14 A. This is the autopsy report from Dr. Resk for
15 Rose Farrell, case number -- Sacramento case number
16 B18-71 and Butte County case number 18-19665.

17 [Exhibit 1103 introduced
18 as evidence.]

19 BY MS. DUPRE-TOKOS:

20 Q. And Exhibit 1103.

21 A. This is the identification summary report for
22 Sacramento County case B18-00071 and Butte 18-19655
23 identifying -- or it looks like maybe that is 665
24 handwritten in identifying the remains.

25 Q. Identifying the remains of who?

26 A. Rose Farrell.

1 [Exhibit 1104 introduced
2 as evidence.]

3 BY MS. DUPRE-TOKOS:

4 Q. And Exhibit 1104.

5 A. This is my autopsy report for Jesus P.
6 Fernandez, Sacramento case number B18-00049 and Butte
7 County 18-19563.

8 Q. Did you follow the standard procedures for
9 Mr. Fernandez's autopsy?

10 A. Yes, I did.

11 Q. And what was your conclusion as to
12 Mr. Fernandez's cause of death?

13 A. Inhalation of products of combustion and thermal
14 injuries.

15 Q. And this is one of those cases where
16 methamphetamine intoxication was listed in the autopsy
17 findings, but that was not the cause of death; correct?

18 A. That's correct.

19 [Exhibit 1105 introduced
20 as evidence.]

21 BY MS. DUPRE-TOKOS:

22 Q. And then Exhibit 1105.

23 A. It should be identification summary report for
24 Sacramento B18-00049 and 18-19563, the Butte County
25 number for Jesus Fernandez.

26 [Exhibit 1106 introduced

as evidence.]

BY MS. DUPRE-TOKOS:

Q. Exhibit 1106.

A. The autopsy report for Dr. Resk for Jean Forsman, Sacramento case number B18-107 and Butte County 18-19947.

Q. Were all the standard procedures followed for this autopsy?

A. Yes, they were.

Q. And did you review all the facts and procedures in Ms. Forsman's autopsy?

A. Yes, I did.

Q. Did you reach your own conclusion as to Ms. Forsman's cause of death?

A. Yes, I did.

Q. What was your conclusion?

A. Fire-related injuries.

[Exhibit 1107 introduced
as evidence.]

BY MS. DUPRE-TOKOS:

Q. And then Exhibit 1107.

A. This is the identification summary report for Sacramento case B18-00107 and Butte County 18-19947 identifying the decedent as Jean Forsman.

[Exhibit 1108 introduced
as evidence.]

1 BY MS. DUPRE-TOKOS:

2 Q. Exhibit 1108.

3 A. This is the autopsy report from Dr. Nagao,
4 N-a-g-a-o, for Ernest F. Foss, Sacramento case number
5 B18-00039 and Butte County 18-19524.

6 Q. Were the standard procedures followed for
7 Mr. Foss's autopsy?

8 A. Yes, they were.

9 Q. Did you review all the facts and procedures in
10 Mr. Foss's autopsy?

11 A. Yes, I did.

12 Q. Did you reach your own conclusion as to
13 Mr. Foss's cause of death?

14 A. Yes, I did.

15 Q. And what was your conclusion?

16 A. Thermal injuries and I agree the heart is
17 enlarged with cardiomyopathy.

18 Q. Which is listed under "autopsy findings"?

19 A. As a significant condition, yes.

20 Q. And then there also was cannabinoids and a
21 nonlethal level of medication. And again, not a cause of
22 death?

23 A. Correct.

24 [Exhibit 1109 introduced
25 as evidence.]

26 BY MS. DUPRE-TOKOS:

1 Q. And then Exhibit 1109.

2 A. This is the identification summary report for
3 Sacramento case B18-00039 and Butte County 18-19524
4 identifying the remains of Ernest Foss.

5 MS. DUPRE-TOKOS: Does anybody need a break? Do
6 you need a break? We're good.

7 GRAND JUROR NUMBER FOUR: Could you do something
8 for me.

9 MS. DUPRE-TOKOS: Excuse me?

10 GRAND JUROR NUMBER FOUR: Under the ID there, I
11 can't read that word where -- the one that's signed off.

12 MS. DUPRE-TOKOS: Where? Here?

13 GRAND JUROR NUMBER FOUR: No. Where the doctor
14 signs up above.

15 MS. DUPRE-TOKOS: Here?

16 GRAND JUROR NUMBER FOUR: Yeah. No. The fourth
17 from the letter.

18 MS. DUPRE-TOKOS: "M. Vargas via SSD Cal ID."

19 GRAND JURY FOREPERSON: No, no. The word to the
20 left of the signature.

21 MS. DUPRE-TOKOS: Oh, fingerprints.

22 GRAND JUROR NUMBER FOUR: Thank you.

23 MS. DUPRE-TOKOS: Sorry. I was going the wrong
24 left.

25 [Exhibit 1110 introduced
26 as evidence.]

1 BY MS. DUPRE-TOKOS:

2 Q. Exhibit 1110.

3 A. This is the autopsy report from Dr. Resk on
4 Elizabeth Gaal, Sacramento case B18-77 and Butte County
5 18-19680.

6 Q. Were the standard procedures followed for
7 Ms. Gaal or Gaal's autopsy?

8 A. Yes, they were.

9 Q. Did you review all the facts and procedures in
10 this autopsy?

11 A. Yes, I did.

12 Q. And did you reach your own conclusion as to
13 Ms. Gaal's cause of death?

14 A. Yes, I did.

15 Q. What was your conclusion?

16 A. Fire-related injuries.

17 [Exhibit 1111 introduced
18 as evidence.]

19 BY MS. DUPRE-TOKOS:

20 Q. And Exhibit 1111. Tell us what that is.

21 A. This is the identification summary report for
22 Sacramento case B18-00077 and Butte County 18-19680
23 identifying the remains as Elizabeth Gaal.

24 MS. DUPRE-TOKOS: And just for the record, Gaal
25 or Gaal is G-a-a-l.

26 [Exhibit 1112 introduced

as evidence.]

BY MS. DUPRE-TOKOS:

Q. Exhibit 1112.

A. This is the autopsy report from Dr. Nagao on Sally -- or sorry. Yeah, Sally L. Gamboa, Sacramento case B18-00034 and Butte County 18-19535.

Q. Were the standard procedures -- excuse me, procedures followed for Ms. Gamboa's autopsy?

A. Yes, they were.

Q. Did you review all the facts and procedures in Ms. Gamboa's autopsy?

A. Yes, I did.

Q. And did you reach your own conclusion as to Ms. Gamboa's cause of death?

A. Yes, I did.

Q. What was that conclusion?

A. Thermal injuries.

[Exhibit 1113 introduced
as evidence.]

BY MS. DUPRE-TOKOS:

Q. Exhibit 1113.

A. This is the identification summary report for Sacramento case B18-00034 and Butte County 18-19535 identifying the remains as Sally Lee Gamboa.

[Exhibit 1114 introduced
as evidence.]

1 BY MS. DUPRE-TOKOS:

2 Q. Exhibit 1114.

3 A. Dr. Resk's autopsy report for James Garner,
4 Sacramento case number B18-81 and Butte County 18-19550.

5 Q. Were the standard procedures followed for
6 Mr. Garner's autopsy?

7 A. Yes, they were.

8 Q. Did you review all the facts and procedures in
9 Mr. Garner's autopsy?

10 A. Yes, I did.

11 Q. Did you reach your own conclusion as to
12 Mr. Garner's cause of death?

13 A. Yes, I did.

14 Q. What was that conclusion?

15 A. Fire-related injuries.

16 [Exhibit 1115 introduced
17 as evidence.]

18 BY MS. DUPRE-TOKOS:

19 Q. Exhibit 1115.

20 A. This is the identification summary report for
21 Sacramento B18-00081 and Butte 18-19550 identifying the
22 remains as James Doyle Garner.

23 [Exhibit 1116 introduced
24 as evidence.]

25 BY MS. DUPRE-TOKOS:

26 Q. Exhibit 1116.

1 A. This is the autopsy report from Dr. Reiber on
2 Richard Garrett, Sacramento case B18-00098 and Butte
3 County 18-19753.

4 Q. Were the standard procedures followed for
5 Mr. Garrett's autopsy?

6 A. Yes, they were.

7 Q. And did you review all the facts and procedures
8 in this autopsy?

9 A. Yes, I did.

10 Q. Did you reach your own conclusion as to
11 Mr. Garrett's cause of death?

12 A. Yes, I did.

13 Q. What was your conclusion?

14 A. Thermal total -- thermal injuries.

15 Q. And again, this autopsy listed other significant
16 conditions, and you talked about that earlier. Correct?

17 A. Correct.

18 [Exhibit 1117 introduced
19 as evidence.]

20 BY MS. DUPRE-TOKOS:

21 Q. And Exhibit 1117.

22 A. This is the identification summary report for
23 Sacramento B18-00098 and Butte 18-19753 identifying the
24 remains as Richard J. Garrett.

25 [Exhibit 1118 introduced
26 as evidence.]

1 BY MS. DUPRE-TOKOS:

2 Q. Exhibit 1118.

3 A. This is the autopsy report from Dr. Reiber on
4 William Godbout, Sacramento case B18-00042 and Butte
5 County 18-19531.

6 Q. Were the standard procedures followed for
7 Mr. Godbout's autopsy?

8 A. Yes, they were.

9 Q. And did you review all the facts and procedures
10 in this autopsy?

11 A. Yes, I did.

12 Q. Did you reach your own conclusion as to
13 Mr. Godbout's cause of death?

14 A. Yes, I did.

15 Q. What was that conclusion?

16 A. Inhalation of products of combustion and thermal
17 injuries and I agree with the other significant
18 condition.

19 Q. Which is atherosclerotic cardiovascular disease?

20 A. Correct.

21 [Exhibit 1119 introduced
22 as evidence.]

23 BY MS. DUPRE-TOKOS:

24 Q. And then Exhibit 1119.

25 A. This is the identification summary report for
26 Sacramento B18-00042 and Butte 18-19531 identifying the

1 remains as William Godbout, G-o-d-b-o-u-t.

2 Q. Now, jumping back to 1118, which was the autopsy
3 report, so it had inhalation of products of combustion.
4 And so that indicates that Mr. Godbout breathed in some
5 of the products of combustion that we talked about
6 earlier?

7 A. Correct.

8 Q. And so he was alive at the time of the fire?

9 A. Correct.

10 [Exhibit 1120 introduced
11 as evidence.]

12 BY MS. DUPRE-TOKOS:

13 Q. Okay. Exhibit 1120.

14 A. This is Dr. Resk's report for Shirley Haley,
15 Sacramento case B18-48 and Butte County case 18-19566.

16 Q. And were the standard procedures followed for
17 Ms. Haley's autopsy?

18 A. Yes, they were.

19 Q. Did you review all the facts and procedures in
20 that autopsy?

21 A. Yes, I did.

22 Q. Did you reach your own conclusion as to
23 Ms. Haley's cause of death?

24 A. Yes, I did.

25 Q. And what was your conclusion?

26 A. Fire-related injuries.

1 [Exhibit 1121 introduced
2 as evidence.]

3 BY MS. DUPRE-TOKOS:

4 Q. And is there an identification summary attached
5 to that?

6 A. Yes, there is. It's a circumstantial
7 identification for Butte case 18-19566 identifying the
8 remains as Shirley Haley.

9 [Exhibit 1122 introduced
10 as evidence.]

11 BY MS. DUPRE-TOKOS:

12 Q. And then Exhibit 1122.

13 A. It's the autopsy report from Dr. Reiber on
14 Dennis Hanko, H-a-n-k-o, case number Sacramento B18-00068
15 and Butte County 18-19647.

16 Q. Were the standard procedures followed for
17 Mr. Hanko's autopsy?

18 A. Yes, they were.

19 Q. And did you review all the facts and procedures
20 in Mr. Hanko's autopsy report?

21 A. Yes, I did.

22 Q. Did you reach your own conclusion as to the
23 cause of death?

24 A. Yes, I did.

25 Q. And what was that conclusion?

26 A. Inhalation of products of combustion and thermal

1 injuries.

2 Q. And so again, the inhalation of products of
3 combustion, that indicates he would have been alive at
4 the time of the fire?

5 A. Correct.

6 [Exhibit 1123 introduced
7 as evidence.]

8 BY MS. DUPRE-TOKOS:

9 Q. And then Exhibit 1123.

10 A. The identification summary report for Sacramento
11 B18-00068 and Butte County 18-19647 identifying the
12 remains as Dennis John Hanko.

13 [Exhibit 1124 introduced
14 as evidence.]

15 BY MS. DUPRE-TOKOS:

16 Q. Exhibit 1124.

17 A. This is Dr. Raven's report on Anna Hastings,
18 Sacramento case B18-00069 and Butte County 18-019655.

19 Q. Were the standard procedures followed for
20 Ms. Hastings' autopsy?

21 A. Yes, they were.

22 Q. And then did you review all the facts and
23 procedures in Ms. Hastings' autopsy report?

24 A. Yes, I did.

25 Q. Did you reach your own conclusion as to
26 Ms. Hastings' cause of death?

1 A. Yes, I did.

2 Q. And what was that?

3 A. Thermal injuries.

4 [Exhibit 1125 introduced
5 as evidence.]

6 BY MS. DUPRE-TOKOS:

7 Q. And is there an attached identification summary
8 report?

9 A. Yes, there is here, yeah. Slightly different
10 than the one -- usual one but, yes.

11 Q. Okay. And could you -- does it list the
12 Sacramento County case number?

13 A. It's listed as B18-00069 and Butte County
14 18-19655. It identifies the remains as Anna Irene
15 Hastings.

16 Q. Thank you.

17 [Exhibit 1126 introduced
18 as evidence.]

19 BY MS. DUPRE-TOKOS:

20 Q. And Exhibit 1126.

21 A. This is Dr. Reiber's report of Jennifer Hayes,
22 Sacramento case B18-00093 and Butte County 18-19735.

23 Q. And was the standard -- were the standard
24 procedures followed for Ms. Hayes' autopsy?

25 A. Yes, they were.

26 Q. And did you review all the facts and procedures

1 in the autopsy?

2 A. Yes, I did.

3 Q. Did you reach your own conclusion as to
4 Ms. Hayes' cause of death?

5 A. Yes, I did.

6 Q. What was that conclusion?

7 A. Inhalation of products of combustion and thermal
8 injuries.

9 Q. And again, with the inhalation of products of
10 combustion, that would indicate that she was alive at the
11 time of the fire?

12 A. That is correct. And I agree with the other
13 significant condition of atherosclerotic cardiovascular
14 disease.

15 [Exhibit 1127 introduced
16 as evidence.]

17 BY MS. DUPRE-TOKOS:

18 Q. And then Exhibit 1127.

19 A. This is the autopsy -- or I'm sorry,
20 identification summary report for Sacramento B18-00093
21 and Butte case 18-19735 identifying the remains as
22 Jennifer Hayes.

23 [Exhibit 1128 introduced
24 as evidence.]

25 BY MS. DUPRE-TOKOS:

26 Q. Exhibit 1128.

A. This is my autopsy report of Christina Heffern, H-e-f-f-e-r-n, Sacramento case B18-0063 and Butte County 18-19604.

Q. And did you follow the standard procedures?

A. Yes, I did.

Q. And what was your conclusion regarding Christina Heffern's cause of death?

A. Thermal injuries.

[Exhibit 1129 introduced
as evidence.]

BY MS. DUPRE-TOKOS:

Q. And Exhibit 1129.

A. This is the identification summary report for Sacramento B18-00063 and Butte County 18-19604 identifying the remains as Christina Heffern.

[Exhibit 1130 introduced
as evidence.]

BY MS. DUPRE-TOKOS:

Q. And Exhibit 1130.

A. I'm looking. There is an addendum
identification report so . . .

Q. Oh, to Ms. Christina Heffern?

A. Yeah. I'm just reading what that means there. So I think it's just -- oh, there was a name change on there.

Q. A correction in spelling?

1 A. A correction in spelling of the last name.

2 Q. Okay.

3 A. Yeah.

4 Q. Thank you. And Exhibit 1130.

5 A. This is Dr. Su's autopsy report of Ishka
6 Heffern, Sacramento case B19-00064. And the Butte County
7 case is not listed here.

8 Q. And were the standard procedures followed for
9 Ishka Heffern's autopsy?

10 A. Yes, they were.

11 Q. And did you review all the facts and procedures
12 in Ms. Heffern's autopsy?

13 A. Yes, I did.

14 Q. Did you reach a conclusion as to Ishka Heffern's
15 cause of death?

16 A. Yes, I did.

17 Q. And what was your conclusion?

18 A. Fire-related injuries.

19 [Exhibit 1131 introduced
20 as evidence.]

21 BY MS. DUPRE-TOKOS:

22 Q. Okay. Is there an identification summary
23 attached?

24 A. There is a Butte County circumstantial
25 identification report for Butte County case number
26 18-19605 and that is identifying the decedent as Ishka

1 Heffern.

2 MR. NOEL: And that should be marked as 1131.

3 THE WITNESS: That is correct.

4 [Exhibit 1132 introduced
5 as evidence.]

6 MS. DUPRE-TOKOS:

7 Q. And then Exhibit 1132.

8 A. The previous report has -- there's going to be
9 multiple people. There's a note to identify how come
10 they are mixed together here.

11 Q. Okay.

12 A. And so for the record, the diagram with the
13 skeleton in Dr. Su's report lists a Butte County number
14 as 18-19605.

15 Q. Okay. Thank you. And that is part of the
16 autopsy report or part of the identification?

17 A. Part of the autopsy report, yes.

18 Q. Okay. And Exhibit 1132.

19 A. This is my autopsy report for Matilde Heffern,
20 Sacramento case number 18 -- or B18-00108 and Butte
21 County 18-19967.

22 Q. Did you follow the standard procedures for this
23 autopsy?

24 A. Yes, I did.

25 Q. And what was your conclusion regarding Matilde
26 Heffern's cause of death?

1 A. This was a result of fire-related injuries.

2 Q. And is there an identification report with that?

3 A. There is no identification report for this one.

4 And this -- this is -- so this -- this exam was performed
5 when cases or Sacramento case B18-00063 and B18-00064
6 were conducted. When anthropology reviewed these two
7 cases, they identified a third individual mixed among the
8 remains of those two cases. That is this case B18-00108.

9 It's unclear where they actually found that,
10 whether it was with case 63 or 64. So it wasn't an
11 independent exam, but it did go through -- because both
12 previous cases did undergo that exam and the procedure
13 and then this one was just kind of separated out when it
14 was identified.

15 Q. Okay. And again, you did this autopsy report
16 and you did Christina Heffern's autopsy as well; correct?

17 A. That is correct.

18 [Exhibit 1133 introduced
19 as evidence.]

20 BY MS. DUPRE-TOKOS:

21 Q. And 1133.

22 A. And I don't know how she -- her identification
23 may be circumstantial.

24 Q. Oh, on Matilde Heffern?

25 A. There is no report for that.

26 Q. Correct.

1 A. Oh, so this is the autopsy report from Dr. Resk
2 on Louis Herrera, Sacramento case B18-86 and Butte County
3 18-19672.

4 Q. Were the standard procedures followed for
5 Mr. Herrera's autopsy?

6 A. Yes, they were.

7 Q. Did you review all the facts and procedures in
8 Mr. Herrera's autopsy report?

9 A. Yes, I did.

10 Q. Did you reach your own conclusion as to
11 Mr. Herrera's cause of death?

12 A. Yes, I did.

13 Q. And what was that conclusion?

14 A. Fire-related injuries.

15 [Exhibit 1134 introduced
16 as evidence.]

17 BY MS. DUPRE-TOKOS:

18 Q. Exhibit 1134.

19 A. This should be identification summary for
20 Sacramento B18-00086 and Butte County 18-19672
21 identifying the remains as Louis Anthony Herrera, Senior.

22 [Exhibit 1135 introduced
23 as evidence.]

24 BY MS. DUPRE-TOKOS:

25 Q. And Exhibit 1135.

26 A. This is Dr. Resk's report for Evva Holt,

1 Sacramento B18-85 and Butte County 18-19702.

2 Q. Were the standard procedures followed for this
3 autopsy?

4 A. Yes, they were.

5 Q. Did you review all the facts and procedures in
6 Ms. Holt's autopsy?

7 A. Yes, I did.

8 Q. Did you reach your own conclusion as to
9 Ms. Holt's cause of death?

10 A. Yes, I did.

11 Q. And what was that conclusion?

12 A. Fire-related injuries.

13 [Exhibit 1136 introduced
14 as evidence.]

15 BY MS. DUPRE-TOKOS:

16 Q. And Exhibit 1136.

17 A. This is the identification summary report for
18 Sacramento B18-00085 and Butte County 18-19702
19 identifying the remains as Evva M. Holt.

20 [Exhibit 1137 introduced
21 as evidence.]

22 BY MS. DUPRE-TOKOS:

23 Q. Okay. Exhibit 1137.

24 A. This is Dr. Abedschmidt, A-b-e-d-s-c-h-m-i-d-t,
25 for TK Huff, Sacramento case B18-00046 and Butte County
26 18-19586.

1 Q. Were the standard procedures followed for
2 Mr. Huff?

3 A. Yes, they were.

4 Q. Did you review all the facts and procedures of
5 Mr. Huff's autopsy?

6 A. Yes, I did.

7 Q. Did you reach your own conclusion as to
8 Mr. Huff's cause of death?

9 A. Yes, I did.

10 Q. What was that conclusion?

11 A. Thermal injuries and I'd agree with the other
12 significant condition listed.

13 Q. The --

14 A. Atherosclerotic cardiovascular.

15 Q. Thank you.

16 [Exhibit 1138 introduced
17 as evidence.]

18 BY MS. DUPRE-TOKOS:

19 Q. And Exhibit 1138.

20 A. This is the identification summary report for
21 B18-00046 and Butte County 18-19586 identifying the
22 remains as TK Huff.

23 [Exhibit 1139 introduced
24 as evidence.]

25 BY MS. DUPRE-TOKOS:

26 Q. Exhibit 1139.

1 A. This is Dr. Resk's report for Gary Hunter,
2 Sacramento case B18-88 and Butte County 18-19737.

3 Q. Were the standard procedures followed for
4 Mr. Hunter's autopsy?

5 A. Yes, they were.

6 Q. Did you review all the facts and procedures in
7 Mr. Hunter's autopsy?

8 A. Yes, I did.

9 Q. Did you reach your own conclusion as to
10 Mr. Hunter's cause of death?

11 A. Yes, I did.

12 Q. And what was that conclusion?

13 A. Fire-related injuries.

14 [Exhibit 1140 introduced
15 as evidence.]

16 BY MS. DUPRE-TOKOS:

17 Q. And Exhibit 1140.

18 A. Identification summary report for Sacramento
19 case B18-00088 and Butte County 18-19737 identifying the
20 remains as Gary Hunter.

21 [Exhibit 1141 introduced
22 as evidence.]

23 BY MS. DUPRE-TOKOS:

24 Q. Exhibit 1141.

25 A. This is Dr. Resk's report for James Kinner,
26 Sacramento case B18-97 and Butte County 18-19755.

1 Q. Were the standard procedures followed for
2 Mr. Kinner's autopsy?

3 A. Yes, they were.

4 Q. Did you review all the facts and procedures in
5 Mr. Kinner's autopsy?

6 A. Yes, I did.

7 Q. Did you reach your own conclusion as to
8 Mr. Kinner's cause of death?

9 A. Yes, I did.

10 Q. What was that conclusion?

11 A. Fire-related injuries.

12 [Exhibit 1142 introduced
13 as evidence.]

14 BY MS. DUPRE-TOKOS:

15 Q. And Exhibit 1142.

16 A. This is the identification summary report for
17 Sacramento B18-00097 and Butte County 18-19755
18 identifying the remains as James Kinner.

19 Q. And it says "See Attached." What is attached in
20 terms of how the identification was made?

21 A. It looks like they were identified from medical
22 records and using the hardware for his right knee.

23 Q. Okay. And that's what you mentioned earlier
24 when sometimes you would do x-rays to see if there was
25 any sort of hardware that would have a serial number.

26 A. Yes.

1 Q. And this would be one of those cases?

2 A. Yeah, but the hardware was a loss because of the
3 damage. It was identified and it was -- based on that it
4 was -- some of the hardware numbers were not completely
5 visible, but it was based on the information provided and
6 identified.

7 [Exhibit 1143 introduced
8 as evidence.]

9 BY MS. DUPRE-TOKOS:

10 Q. Okay. Exhibit 1143.

11 A. This is Dr. Resk's report for Dorothy
12 Lee-Herrera, L-e-e, dash, H-e-r-r-e-r-a, Sacramento case
13 B18-105 and Butte County 18-19949.

14 Q. Were the standard procedures followed for
15 Ms. Lee-Herrera's autopsy?

16 A. Yes, they were.

17 Q. Did you review all the facts and procedures of
18 Ms. Herrera's autopsy report?

19 A. Yes, I did.

20 Q. Excuse me. Did you reach your own conclusion as
21 to Ms. Lee-Herrera's cause of death?

22 A. Yes, I did.

23 Q. And what was that conclusion?

24 A. Fire-related injuries.

25 [Exhibit 1144 introduced
26 as evidence.]

1 BY MS. DUPRE-TOKOS:

2 Q. Is there an identification summary report
3 attached?

4 A. Yes, there is.

5 Q. So is that Exhibit 1144?

6 A. It is 1144. And it's from James D. Wood,
7 forensic dentistry. It identifies the decedent as
8 Dorothy Lee-Herrera.

9 Q. Does it list any case numbers on it?

10 A. It lists Sacramento case B18-00105 and Butte
11 County 18-19949.

12 [Exhibit 1145 introduced
13 as evidence.]

14 BY MS. DUPRE-TOKOS:

15 Q. Okay. Exhibit 1145.

16 A. Dr. Resk's report for Warren Lessard, Sacramento
17 case B18-101 and Butte County 18-19809.

18 Q. Were the standard procedures followed for
19 Mr. Lessard's autopsy?

20 A. Yes, they were.

21 Q. Did you review all the facts and procedures of
22 Mr. Lessard's autopsy?

23 A. Yes, I did.

24 Q. And did you reach your own conclusion as to
25 Mr. Lessard's cause of death?

26 A. Yes, I did.

1 Q. What was that conclusion?

2 A. Fire-related injuries.

3 [Exhibit 1146 introduced
4 as evidence.]

5 BY MS. DUPRE-TOKOS:

6 Q. And Exhibit 1146.

7 A. This is the identification summary report for
8 Sacramento case B18-00101 and Butte County 18-19809
9 identifying the remains as Warren Lessard.

10 Q. There's a note on there that says "See attached
11 for supporting documentation."

12 A. So it talks -- this is a report from our office
13 from Coroner Gin. It looks like where this body was
14 recovered there was only one resident. And I think it's
15 the decedent's sister who says that the decedent was a
16 squatter at that address. And Dr. Galloway, an
17 anthropologist -- G-a-l-l-o-w-a-y -- determined that they
18 were male, adult, old but not elderly.

19 He was -- the decedent was born in 1950 which
20 puts him into that range for the anthropologist. And
21 then Dr. Resk performed the autopsy and identified male
22 genitalia within the remains.

23 The DNA from an individual who claims that
24 Mr. Lessard is her brother did not reach the required
25 statistical probability that they are related. So the
26 identification couldn't be definitive based on the DNA.

1 Q. And what percentage did it reach or does it not
2 list it?

3 A. It says it did not reach 99.5 percent.

4 Q. Okay.

5 A. So it was below that. I don't know what that
6 87.7 under a string of numbers is. So it sounds like it
7 may be a little bit of circumstantial on this one as
8 well.

9 Q. Okay.

10 MR. NOEL: Remember, Ladies and Gentlemen, the
11 admonition you have been given where we remind you of
12 hearsay. Statements of the person alleging to be
13 Mr. Lessard's sibling would be hearsay. And the
14 difference between, say, those and the statements of
15 Dr. Resk or Dr. Selden or any of those others would be
16 that those are medical opinions and medical facts that
17 are being relied upon by this expert to form his own
18 conclusions. So that you can use, but the substance of
19 what the sister said you cannot use for any purposes.

20 **EXAMINATION**

21 BY MR. NOEL:

22 Q. All right. It's just about noon. Can I ask you
23 one clarifying question real quick before we break for
24 lunch. We've gone through now all of these --
25 approximately 100 exhibits, the autopsy reports,
26 identification reports.

1 We're concentrating on the face pages of those
2 things. Is that correct?

3 A. Yeah.

4 Q. The autopsy results, the identification results.
5 But what you're referring to actually in each exhibit is
6 a packet; correct?

7 A. That is correct.

8 Q. And is the contents of that packet attached to
9 the face page of the autopsy or identification report the
10 items that you relied upon in your review and in making
11 your medical opinion or giving your medical opinion?

12 A. There are the -- yes. There are things in here
13 that I didn't have access to that are part of the packet.
14 And most of that is just, you know, some of these other
15 statements and these other charts and diagrams of the DNA
16 and all that, graphs for identification.

17 But for every case I had access to the autopsy
18 report, the photographs of the remains, and the -- and I
19 don't know for each particular case. There were other
20 things that were available in our system. I don't know
21 what they may have been, but they may or may not have
22 included what else is in this packet so -- but they
23 didn't -- if they were there or not there based on the
24 information that I did have, I was able to come to my
25 opinion and conclusion about the case from a medical
26 standpoint.

1 Q. Okay. So each packet is the result of the
2 autopsy plus supporting documentation and other items as
3 part of the autopsy itself; correct?

4 A. That is correct.

5 MR. NOEL: All right. Ready for lunch?

6 GRAND JURY FOREPERSON: Yes. Everybody seems
7 ready.

8 MS. DUPRE-TOKOS: Are you going to give the
9 admonition again?

10 MR. NOEL: Yep.

11 GRAND JURY FOREPERSON: Dr. Tovar, you are
12 admonished not to discuss or disclose at any time outside
13 of this jury room the questions that have been asked of
14 you or your answers until authorized by this grand jury
15 or the Court. A violation of these instructions on your
16 part may be the basis for a charge against you of
17 contempt of court. This does not preclude you from
18 discussing your legal rights with your own attorney.

19 Dr. Tovar, what I have just said is a warning
20 not to discuss this case with anyone except the Court,
21 your lawyer, or the district attorney.

22 Any questions?

23 THE WITNESS: No.

24 GRAND JURY FOREPERSON: Thank you.

25 [Whereupon the luncheon recess

26 is taken from 12:00 to 1:33 p.m.]

1 [ROLL CALL OMITTED.]

2
3 [Witness enters the courtroom.]

4 MS. DUPRE-TOKOS: And then before you sit, you
5 need to face madam foreperson as well.

6 THE WITNESS: I'm sorry. I don't know what to
7 do.

8 GRAND JURY FOREPERSON: That's okay.

9 And what is your name, Ma'am?

10 THE WITNESS: Cheryl Krueger.

11 GRAND JURY FOREPERSON: I'm sorry?

12 THE WITNESS: Cheryl Krueger.

13 GRAND JURY FOREPERSON: Krueger.

14 Okay. Ms. Krueger, do you solemnly swear that
15 the evidence you shall give in the matter pending before
16 the grand jury shall be the truth, the whole truth, and
17 nothing but the truth so help you God?

18 THE WITNESS: Yes.

19 GRAND JURY FOREPERSON: Thank you. Have a seat,
20 please.

21 **EXAMINATION**

22 MS. DUPRE-TOKOS:

23 Q. Good afternoon.

24 A. Hi.

25 Q. I was going to say you can pull that closer to
26 you a little bit. I know no one in your family will

1 believe it, but you are soft spoken. So you might need
2 to pull the microphone closer.

3 A. They wouldn't believe you. They would not
4 believe you.

5 Q. Could you state your name and spell your last
6 name for us.

7 A. My name is Cheryl Krueger and it's
8 K-r-u-e-g-e-r.

9 Q. Now, just as an initial matter, are you related
10 to someone by the name of Lisa Beach?

11 A. I am. She's my sister.

12 Q. And is that the same Lisa Beach who works at the
13 Butte County DA's Office?

14 A. Yes.

15 Q. Is there anything about that relationship that
16 would cause you to be anything less than truthful today?

17 A. Absolutely not.

18 Q. She's your little sister?

19 A. Yeah. And she would slap me if I lied.

20 Q. Did you have a brother by the name of James
21 Garner?

22 A. I do.

23 Q. Okay. And to some family members did he go by
24 the nickname Jimbo?

25 A. Yes.

26 Q. Where did he live?

1 A. I lived at 6284 Woodbury Drive, Magalia,
2 California.

3 Q. And where in relation -- on November 8th of
4 2018, where did you live in relationship to your brother
5 Jimbo?

6 A. Two blocks over.

7 Q. Did you speak to him on November 8, 2018?

8 A. I did.

9 Q. Is that in person or over the phone?

10 A. Over the phone.

11 Q. Okay. Had you spoken to him on the phone before
12 at any time in your life?

13 A. For about 60 some-odd years.

14 Q. Okay. So were you able to recognize the
15 voice -- when you spoke to him on the phone that day, did
16 you recognize the voice as his and the one you heard
17 over -- as his over the phone for years and years?

18 A. Yes.

19 Q. Now, did you call him or did he call you?

20 A. I called him.

21 Q. Did you call on the same phone number you always
22 call in order to reach him?

23 A. Yeah.

24 Q. Okay. And did he have a unique way of answering
25 the phone?

26 A. "How do?"

1 Q. When you called him on November 8th, did he
2 answer the phone "How do?"

3 A. He did.

4 Q. Did you have any doubt in your mind that you
5 were speaking with your brother Jimbo?

6 A. No doubt at all.

7 Q. How many times did you speak with him on the
8 phone on November 8, 2018?

9 A. I called him twice.

10 Q. Okay. And when you -- the number you called,
11 was that a landline?

12 A. Yes.

13 Q. So you know he was at his house in Magalia?

14 A. Yes.

15 Q. Okay. Did you brother survive the Camp Fire on
16 November 8 of 2018?

17 A. No, he did not.

18 Q. Can you tell us the times that you spoke to him.
19 You said you spoke to him twice.

20 A. I did. Our son showed up at our house probably
21 around 8:00, 8:30 maybe and said that there was a fire
22 headed towards, I guess, Paradise. And so he said there
23 may be evacuations. And so he left us and went to
24 Paradise where his house was.

25 And so I called my brother to let him know that,
26 you know, we may all have to evacuate, should we pick him

1 up. And he said "No." He says "We've had fires around
2 here all around us." And I agreed with him. You know.
3 He was going to wait it out. Those were his exact words.

4 Q. So that first time was shortly after 8:00?

5 A. Yeah.

6 And then I called him again. We left our house
7 between 10:00 and 10:30, I believe. And I called him
8 just before we went out the door to see if I could come
9 pick him up. Because by that time my son was panicking
10 because he was in Paradise trying to get out. And he
11 wanted us out. And I explained to my son that I couldn't
12 get Jimmy to budge. And so when I called Jim the second
13 time, he said no. He was going to wait it out. You
14 know.

15 Q. So did he have a car?

16 A. No.

17 Q. Okay. So he would have been reliant on you or
18 someone else for a ride?

19 A. Yes, yes.

20 Q. Did you lose your house in the Camp Fire?

21 A. Yes.

22 Q. Can you tell us what your address was in
23 Magalia?

24 A. 13720 West Park Drive.

25 MS. DUPRE-TOKOS: Does anyone have any
26 questions?

1 Okay. If you could just give the admonition.

2 GRAND JURY FOREPERSON: Okay.

3 MS. DUPRE-TOKOS: Madam foreperson is going to
4 give you an admonition.

5 GRAND JURY FOREPERSON: Ms. Krueger, you are
6 admonished not to discuss or disclose at any time outside
7 of this jury room the questions that have been asked of
8 you or your answers until authorized by this grand jury
9 or the Court. A violation of these instructions on your
10 part may be the basis for a charge against you of
11 contempt of court. This does not preclude you from
12 discussing your legal rights with your own attorney.

13 Ms. Krueger, what I have just said is a warning
14 not to discuss this case with anyone except the Court,
15 your lawyer, or the district attorney.

16 Do you have any questions?

17 THE WITNESS: No, Ma'am.

18 GRAND JURY FOREPERSON: Okay. Thank you for
19 your time today.

20 MR. NOEL: Thank you.

21 [Witness exits the courtroom.]

22 MR. NOEL: Again, the hearsay admonition, Ladies
23 and Gentlemen. The content of her conversations with her
24 son, with her brother Jimbo are hearsay. Just out of an
25 abundance of caution, although those statements aren't
26 being offered to prove the truth of the matter asserted,

1 don't consider those statements in any way. It's simply
2 the fact that she spoke to her brother sometime shortly
3 after 8:00 a.m. and again right around 10:00 a.m. and at
4 that time he was alive.

5 Ready to go back to Dr. Tovar?

6 [Witness enters the courtroom.]

7 GRAND JURY FOREPERSON: Dr. Tovar, you are still
8 under oath. Have a seat.

9 MS. DUPRE-TOKOS: I'm just waiting for the TV to
10 warm up. Okay. You all set?

11 **EXAMINATION CONTINUED**

12 [Exhibit 1147 introduced
13 as evidence.]

14 BY MS. DUPRE-TOKOS:

15 Q. Let's start by looking at Exhibit 1147.

16 A. Okay. So this is the autopsy report of Dr. Resk
17 for Dorothy Mack, Sacramento case B18-100 and Butte
18 County 18-19812.

19 Q. And were the standard procedures followed for
20 Ms. Mack's autopsy?

21 A. Yes, they were.

22 Q. Did you review all the facts and procedures in
23 Ms. Mack's autopsy report?

24 A. Yes, I did.

25 Q. Did you reach your own conclusion as to
26 Ms. Mack's cause of death?

1 A. Yes, I did.

2 Q. What was your conclusion?

3 A. Fire-related injuries.

4 [Exhibit 1148 introduced
5 as evidence.]

6 BY MS. DUPRE-TOKOS:

7 Q. And then Exhibit 1148.

8 A. This is the identification summary report for
9 Sacramento case B18-00100 and Butte County 18-19812
10 identifying the remains as Dorothy Lee Mack.

11 [Exhibit 1149 introduced
12 as evidence.]

13 BY MS. DUPRE-TOKOS:

14 Q. And then Exhibit 1149.

15 A. This is the autopsy report from Dr. Resk for
16 Sara Magnuson, Sacramento case B18-92 and Butte County
17 18-19727.

18 Q. Were the standard procedures followed for
19 Ms. Magnuson's autopsy?

20 A. Yes, they were.

21 Q. Did you review all the facts and procedures in
22 her autopsy report?

23 A. Yes, I did.

24 Q. Did you reach your own conclusion as to
25 Ms. Magnuson's cause of death?

26 A. Yes, I did.

1 Q. What was that conclusion?

2 A. Fire-related injuries.

3 [Exhibit 1150 introduced
4 as evidence.]

5 BY MS. DUPRE-TOKOS:

6 Q. And then Exhibit 1150. If you can tell us what
7 that is.

8 A. This is the identification summary report for
9 Sacramento B18-00092 and Butte County 18-19727
10 identifying the remains as Sara Magnuson.

11 [Exhibit 1151 introduced
12 as evidence.]

13 BY MS. DUPRE-TOKOS:

14 Q. Exhibit 1151.

15 A. This is the autopsy report from Dr. Resk for
16 Joanne Delores Malarkey, Sacramento case B18-55 and Butte
17 County 18-19596.

18 Q. Were the standard procedures followed for
19 Ms. Malarkey's autopsy?

20 A. Yes, they were.

21 Q. And did you review all the facts and procedures
22 in her autopsy report?

23 A. Yes, I did.

24 Q. Did you reach your own conclusion as to
25 Ms. Malarkey's cause of death?

26 A. Yes, I did.

1 Q. And what was your conclusion?

2 A. Fire-related injuries.

3 [Exhibit 1152 introduced
4 as evidence.]

5 BY MS. DUPRE-TOKOS:

6 Q. And in Exhibit 1152.

7 A. This is the identification summary report for
8 Sacramento B18-00055 and Butte County 18-19596
9 identifying the remains has Joanne Malarkey.

10 [Exhibit 1153 introduced
11 as evidence.]

12 BY MS. DUPRE-TOKOS:

13 Q. Exhibit 1153.

14 A. This is the autopsy report from Dr. Su for John
15 Malarkey, Sacramento case B18-00056. And no Butte County
16 case number is on the autopsy report, but in the
17 accompanying diagram lists it 18-19594. And that's on
18 the diagram with the skeleton.

19 Q. Were the standard procedures followed for
20 Mr. Malarkey's autopsy?

21 A. Yes, they were.

22 Q. Did you review all the facts and procedures in
23 Mr. Malarkey's autopsy?

24 A. Yes, I did.

25 Q. Did you reach your own conclusion as to
26 Mr. Malarkey's cause of death?

1 A. Yes, I did.

2 Q. And what was that conclusion?

3 A. The fire-related injuries.

4 [Exhibit 1154 introduced
5 as evidence.]

6 BY MS. DUPRE-TOKOS:

7 Q. And Exhibit 1154.

8 A. This is the identification summary report for
9 Sacramento B18-00056 and Butte County 18-19594
10 identifying the remains as John Malarkey.

11 [Exhibit 1155 introduced
12 as evidence.]

13 BY MS. DUPRE-TOKOS:

14 Q. And Exhibit 1155.

15 A. This is Dr. Resk's autopsy report of Christopher
16 Maltby, Sacramento case B18-89 and Butte County case
17 18-19732.

18 Q. And were the standard procedures followed for
19 Mr. Maltby's autopsy?

20 A. Yes, they were.

21 Q. Did you review all the facts and procedures in
22 Mr. Maltby's autopsy?

23 A. Yes, I did.

24 Q. Did you reach your own conclusion as to
25 Mr. Maltby's cause of death?

26 A. Yes, I did.

1 Q. What was that?

2 A. Fire-related injuries.

3 [Exhibit 1156 introduced
4 as evidence.]

5 BY MS. DUPRE-TOKOS:

6 Q. In looking at Exhibit 1156, which may or may not
7 be attached, but we have --

8 MR. NOEL: I should have 1156.

9 THE WITNESS: Okay. This is the document for
10 support of identification. It describes a location where
11 the remains were found. There was surgical hardware that
12 was present. It looks like there were two ---

13 I'm not familiar with who Dr. Zehpre is. And
14 then Dr. Galloway is an anthropologist. I don't know who
15 Dr. Bartelink is.

16 They looked at two cases, B18-00044 and
17 B18-00089, and thought that they were older male
18 individuals. And they asked Dr. Bartelink to look at
19 those two cases. And he determined that they were one
20 person. And then there was surgical hardware with the
21 same matching serial numbers identifying the decedent as
22 Christopher Maltby.

23 BY MS. DUPRE-TOKOS:

24 Q. You gave two numbers. Those were both
25 Sacramento County coroner numbers, were they not?

26 A. That is correct.

1 Q. And does this document also list a Butte County
2 case number?

3 A. It lists 18-19732, yes.

4 Q. And this is on County of Sacramento Department
5 of the Coroner letterhead; correct?

6 A. Correct.

7 [Exhibit 1157 introduced
8 as evidence.]

9 BY MS. DUPRE-TOKOS:

10 Q. Exhibit 1157.

11 A. This is Dr. Resk's autopsy for David Marbury,
12 Sacramento case B18-404 and Butte County 18-19868.

13 Q. Were the standard procedures followed for
14 Mr. Marbury's autopsy?

15 A. Yes, they were.

16 Q. And did you review all the facts and procedures
17 in that autopsy?

18 A. Yes, I did.

19 Q. Did you reach your own conclusion as to
20 Mr. Marbury's cause of death?

21 A. Yes, I did.

22 Q. What was your conclusion?

23 A. Fire-related injuries.

24 [Exhibit 1158 introduced
25 as evidence.]

26 BY MS. DUPRE-TOKOS:

1 Q. And then Exhibit 1158.

2 A. This is the identification summary report for
3 Sacramento County case B18-00104 and Butte County
4 18-19868 identifying the remains as David Marbury.

5 [Exhibit 1159 introduced
6 as evidence.]

7 BY MS. DUPRE-TOKOS:

8 Q. Exhibit 1159.

9 A. This is Dr. Nagao's autopsy for Debbie
10 Morningstar, Sacramento case B18-00024 and Butte County
11 18-19534.

12 Q. And there's a note under "Autopsy Findings:
13 Nonlethal levels of --" I think it's "-- paroxetine in
14 liver tissues."

15 So again, just as we discussed earlier, that is
16 just pointing out something else?

17 A. Correct.

18 Q. Were the standard procedures followed for
19 Ms. Morningstar's autopsy?

20 A. Yes, they were.

21 Q. Did you review all the facts and procedures of
22 her autopsy?

23 A. Yes, I did.

24 Q. Did you reach your own conclusion as to her
25 cause of death?

26 A. Yes, I did.

1 Q. And what was that?

2 A. Thermal injuries.

3 [Exhibit 1160 introduced
4 as evidence.]

5 BY MS. DUPRE-TOKOS:

6 Q. And Exhibit 1160.

7 A. This is the identification summary report for
8 Sacramento B18-00024 and Butte County 18-19534
9 identifying the remains as Debbie Morningstar.

10 [Exhibit 1161 introduced
11 as evidence.]

12 BY MS. DUPRE-TOKOS:

13 Q. Exhibit 1161.

14 A. This is Dr. Resk's autopsy report for Helen
15 Pace, Sacramento case B18-94 and Butte County 18-19760.

16 Q. Were the standard procedures followed for
17 Ms. Pace's autopsy?

18 A. Yes, they were.

19 Q. And did you review all the facts and procedures
20 in her autopsy?

21 A. Yes, I did.

22 Q. Did you reach your own conclusion as to
23 Ms. Pace's cause of death?

24 A. Yes, I did.

25 Q. What was that?

26 A. Fire-related injuries.

1 [Exhibit 1162 introduced
2 as evidence.]

3 BY MS. DUPRE-TOKOS:

4 Q. Exhibit 1162.

5 A. This is the identification summary report for
6 Sacramento B18-00094 and Butte County 18-19760
7 identifying the remains as Helen Louise Pace.

8 [Exhibit 1163 introduced
9 as evidence.]

10 BY MS. DUPRE-TOKOS:

11 Q. Exhibit 1163.

12 A. This is my autopsy report for Joy Porter,
13 Sacramento B18-00030 and Butte County 18-19490.

14 Q. And did you follow the standard procedures for
15 this autopsy?

16 A. Yes, I did.

17 Q. What was your conclusion as to the cause of
18 death of Ms. Porter?

19 A. Thermal injuries.

20 [Exhibit 1164 introduced
21 as evidence.]

22 BY MS. DUPRE-TOKOS:

23 Q. And Exhibit 1164.

24 A. The identification summary report for Sacramento
25 B18-00030 and Butte 18-19490 identifying the remains as
26 Joy Porter.

1 [Exhibit 1165 introduced
2 as evidence.]

3 BY MS. DUPRE-TOKOS:

4 Q. And then Exhibit 1165.

5 A. This is the autopsy report of Dr. Nagao for
6 Beverly Powers, Sacramento case B18-00029 and Butte
7 County 18-49488.

8 Q. Excuse me. Were the standard procedures
9 followed for Ms. Powers' autopsy?

10 A. Yes, they were.

11 Q. And did you review all the facts and procedures
12 in her autopsy?

13 A. Yes, I did.

14 Q. Did you reach your own conclusion as to the
15 cause of death?

16 A. Yes, I did.

17 Q. What was that?

18 A. Thermal injuries.

19 [Exhibit 1166 introduced
20 as evidence.]

21 BY MS. DUPRE-TOKOS:

22 Q. And Exhibit 1166.

23 A. This is the identification summary report for
24 Sacramento B18-00029 and Butte County 18-19488
25 identifying the remains as Beverly Powers.

26 [Exhibit 1167 introduced

as evidence.]

BY MS. DUPRE-TOKOS:

Q. And Exhibit 1167.

A. This is the autopsy report of Dr. Raven for Robert Quinn, Sacramento case B18-00050 and Butte County 18-19568.

Q. And those are autopsy findings. There's a note "possible remains of more than one individual."

To your knowledge, was it ever determined that it was only one individual?

A. I do not recall.

Q. And it's fine if you don't recall.

A. I don't know. I just looked at the report and it says "possibly two people or more than one person."

Q. Is there a page at the end from Chico State University? And if there's not, that's fine.

A. Their notes aren't in here but . . .

Q. Okay. So were the standard procedures followed for Mr. Quinn's autopsy?

A. Yes, they were.

Q. And did you review all the facts and procedures in Mr. Quinn's autopsy?

A. Yes, I did.

Q. Did you reach your own conclusion as to Mr. Quinn's cause of death?

A. Yes, I did.

1 Q. And what was your conclusion?

2 A. Fire-related injuries.

3 [Exhibit 1168 introduced
4 as evidence.]

5 BY MS. DUPRE-TOKOS:

6 Q. And then Exhibit 1168.

7 A. It's the identification summary report for
8 Sacramento B18-00050 and Butte County 18-19568
9 identifying the remains as Robert Quinn.

10 [Exhibit 1169 introduced
11 as evidence.]

12 BY MS. DUPRE-TOKOS:

13 Q. Exhibit 1169.

14 A. This is Dr. Raven's report for Joseph Rabetoy,
15 R-a-b-e-t-o-y, case number Sacramento B18-00035 and Butte
16 County is 18-19543.

17 Q. Were the standard procedures followed for this
18 autopsy?

19 A. Yes, they were.

20 Q. And did you review all the facts and procedures
21 in Mr. Rabetoy's autopsy?

22 A. Yes, I did.

23 Q. Did you reach your own conclusion as to
24 Mr. Rabetoy's cause of death?

25 A. Yes, I did.

26 Q. And what was that conclusion?

A. Inhalation of products of combustion.

Q. I'm just going to ask you a general question so that I don't have to ask it over and over. When we see that the cause of death is inhalation of products of combustion, does that mean the person was alive at the time of the fire?

A. Yes.

Q. Okay. And then looking at your autopsy -- or Dr. Raven's autopsy findings, we have "soot lining the airway" and then the carboxyhemoglobin level of 48 percent. Is that high?

A. Yes, it is.

Q. Is it very high?

A. It's -- yeah. It's lethal.

0. Lethal?

A. Yeah.

[Exhibit 1170 introduced
as evidence.]

BY MS. DUPRE-TOKOS:

Q. Okay. Looking at Exhibit 1170.

A. This is the identification summary report for Sacramento B18-00035 and Butte County 18-19543 identifying the remains as Joseph Rabetoy.

Q. And just to ask another general question so I don't have to focus on it again, when we have the soot lining the airway, that's also an indication that the

1 person was alive at the time of the fire; correct?

2 A. That is correct.

3 [Exhibit 1171 introduced
4 as evidence.]

5 BY MS. DUPRE-TOKOS:

6 Q. Okay. Exhibit 1171.

7 A. This is Dr. Nagao's report for Forrest M. Rae,
8 Sacramento B18-00022 and Butte County 18-19530.

9 Q. Were these standard procedures followed for
10 Mr. Rae's autopsy?

11 A. Yes, they were.

12 Q. Did you review all the facts and procedures in
13 Mr. Rae's autopsy?

14 A. Yes, I did.

15 Q. Did you reach your own conclusion as to
16 Mr. Rae's cause of death?

17 A. Yes, I did.

18 Q. And what was that conclusion?

19 A. Thermal injuries.

20 [Exhibit 1172 introduced
21 as evidence.]

22 BY MS. DUPRE-TOKOS:

23 Q. And Exhibit 1172.

24 A. This is the identification summary report for
25 Sacramento B18-00022 and Butte County 18-19530
26 identifying the remains as Forrest Rae.

1 [Exhibit 1173 introduced
2 as evidence.]

3 BY MS. DUPRE-TOKOS:

4 Q. Exhibit 1173.

5 A. This is Dr. Abedschmidt's report for Vernice
6 Regan, Sacramento case B18-00031 and Butte County
7 18-19540.

8 Q. Were the standard procedures followed for
9 Ms. Regan's autopsy?

10 A. Yes, they were.

11 Q. Did you review all the facts and procedures in
12 Ms. Regan's autopsy?

13 A. Yes, I did.

14 Q. Did you reach your own conclusion as to
15 Ms. Regan's cause of death?

16 A. Yes, I did.

17 Q. And what was that conclusion?

18 A. Thermal injuries.

19 Q. Now, looking at the autopsy findings it points
20 out "There's no significant elevation in
21 carboxyhemoglobin and no soot deposition in left distal
22 airway." But this was -- I assume this would be the type
23 of situation you explained earlier where either the
24 person died too quickly or their airway closed off.

25 A. Yes. And it could be -- in this case some of
26 the tissues weren't available for exam because they had

1 burned away.

2 [Exhibit 1174 introduced
3 as evidence.]

4 BY MS. DUPRE-TOKOS:

5 Q. Okay. And then Exhibit 1174.

6 A. This is the identification summary for
7 Sacramento B18-00031 and Butte 18-19540 identifying the
8 remains as Vernice Regan.

9 [Exhibit 1175 introduced
10 as evidence.]

11 BY MS. DUPRE-TOKOS:

12 Q. Exhibit 1175.

13 A. This is the autopsy report for Dr. Resk on a
14 doe, Sacramento case B18-90 and Butte 18-19730.

15 Q. Were the standard procedures followed for this
16 autopsy?

17 A. Yes, they were.

18 Q. Did you review all the facts and procedures in
19 this autopsy?

20 A. Yes, I did.

21 Q. Did you reach your own conclusion as to the
22 cause of death?

23 A. Yes, I did.

24 Q. And what was that conclusion?

25 A. Fire-related injuries.

26 Q. Okay. Is there -- is there an identification

1 summary with that?

2 A. There is not.

3 Q. Okay. But we do have case numbers on the
4 autopsy report; correct?

5 A. Both, yes.

6 [Exhibit 1176 introduced
7 as evidence.]

8 BY MS. DUPRE-TOKOS:

9 Q. This is Exhibit 1176.

10 A. This is Dr. Nagao's autopsy for Lolene Rios,
11 Sacramento case B18-00036 and Butte County 18-19542.

12 Q. Were the standard procedures followed for
13 Ms. Rios' autopsy?

14 A. Yes, they were.

15 Q. And did you review all the facts and procedures
16 in her autopsy?

17 A. Yes, I did.

18 Q. Did you reach your own conclusion as to
19 Ms. Rios' cause of death?

20 A. Yes, I did.

21 Q. And what was that conclusion?

22 A. Inhalation of products of combustion.

23 Q. So again, she was alive at the time of the fire?

24 A. That is correct.

25 [Exhibit 1177 introduced
26 as evidence.]

1 BY MS. DUPRE-TOKOS:

2 Q. And then Exhibit 1177.

3 A. This is the identification summary report for
4 Sacramento B18-00036 and Butte County 18-19542
5 identifying the remains as Lolene Rios.

6 [Exhibit 1178 introduced
7 as evidence.]

8 BY MS. DUPRE-TOKOS:

9 Q. And Exhibit 1178.

10 A. This is Dr. Raven's report for Gerald Rodrigues,
11 Sacramento case B18-00051 and Butte County 18-19562.

12 Q. Were the standard procedures followed for
13 Mr. Rodrigues' autopsy?

14 A. Yes, they were.

15 Q. And did you review all the facts and procedures
16 in that autopsy?

17 A. Yes, I did.

18 Q. Did you reach your own conclusion as to
19 Mr. Rodrigues' cause of death?

20 A. Yes, I did.

21 Q. And what was that conclusion?

22 A. Fire-related injuries.

23 [Exhibit 1179 introduced
24 as evidence.]

25 BY MS. DUPRE-TOKOS:

26 Q. And then Exhibit 1179.

1 A. This is the identification summary report for
2 Sacramento B18-00051 and Butte County 18-19562
3 identifying the remains as Gerald Rodrigues.

4 [Exhibit 1180 introduced
5 as evidence.]

6 BY MS. DUPRE-TOKOS:

7 Q. Exhibit 1180.

8 A. This is Dr. Resk's report for Frederick Salazar,
9 Sacramento case B18-59 and Butte County 18-19617.

10 Q. Were the standard procedures followed for
11 Mr. Salazar's autopsy?

12 A. Yes, they were.

13 Q. And did you review all the facts and procedures
14 in his autopsy?

15 A. Yes, I did.

16 Q. Did you reach your own conclusion as to
17 Mr. Salazar's cause of death?

18 A. Yes, I did.

19 Q. And what was that conclusion?

20 A. Fire-related injuries.

21 [Exhibit 1181 introduced
22 as evidence.]

23 BY MS. DUPRE-TOKOS:

24 Q. And then Exhibit 1181.

25 A. This is the identification summary report for
26 Sacramento B18-00059 and Butte 18-19617 identifying the

1 remains as Frederick Christopher Salazar.

2 [Exhibit 1182 introduced
3 as evidence.]

4 BY MS. DUPRE-TOKOS:

5 Q. And Exhibit 1182.

6 A. This is my autopsy report for Phyllis Salazar,
7 Sacramento case B18-00054 and Butte County 18-19595.

8 Q. Did you follow the standard procedures for this
9 autopsy?

10 A. Yes, I did.

11 Q. And what was your conclusion as to Ms. Salazar's
12 cause of death?

13 A. Thermal injuries.

14 [Exhibit 1183 introduced
15 as evidence.]

16 BY MS. DUPRE-TOKOS:

17 Q. And Exhibit 1183.

18 A. This is the identification summary report for
19 Sacramento B18-00054 and Butte County 18-19595
20 identifying the remains as Phyllis Salazar.

21 [Exhibit 1184 introduced
22 as evidence.]

23 BY MS. DUPRE-TOKOS:

24 Q. Exhibit 1184.

25 A. This is Dr. Raven's report for Sheila Santos,
26 Sacramento B18-00037 and Butte County 18-19536 and

1 18-19496.

2 Q. And were the standard procedures followed for
3 Ms. Santos' autopsy?

4 A. Yes, they were.

5 Q. And did you review all the facts and procedures
6 in this autopsy?

7 A. Yes, I did.

8 Q. Did you reach your own conclusion as to
9 Ms. Santos' cause of death?

10 A. Yes, I did.

11 Q. And what was that conclusion?

12 A. Thermal injuries.

13 Q. And under "Autopsy findings" it includes upper
14 airway soot; correct?

15 A. Yes.

16 [Exhibit 1185 introduced
17 as evidence.]

18 BY MS. DUPRE-TOKOS:

19 Q. And Exhibit 1185.

20 A. It's the identification summary report for
21 Sacramento B18-00037 and 18-19536 identifying the remains
22 as Sheila Santos.

23 [Exhibit 1186 introduced
24 as evidence.]

25 BY MS. DUPRE-TOKOS:

26 Q. Exhibit 1186.

1 A. This is Dr. Resk's autopsy report for Ronald
2 Schenk, Sacramento B18-75 and Butte County 18-19679.

3 Q. Were the standard procedures followed for
4 Mr. Schenk's autopsy?

5 A. Yes, they were.

6 Q. And did you review all the facts and procedures
7 of his autopsy?

8 A. Yes, I did.

9 Q. Did you reach your own conclusion as to
10 Mr. Schenk's cause of death?

11 A. Yes, I did.

12 Q. And what was that conclusion?

13 A. Fire-related injuries.

14 [Exhibit 1187 introduced
15 as evidence.]

16 BY MS. DUPRE-TOKOS:

17 Q. And then Exhibit 1187.

18 A. This is the identification summary report for
19 Sacramento B18-00075 and Butte County 18-19679
20 identifying the remains as Ronald Schenk.

21 [Exhibit 1188 introduced
22 as evidence.]

23 BY MS. DUPRE-TOKOS:

24 Q. And then Exhibit 1188.

25 A. This is Dr. Resk's autopsy for Berniece Schmidt,
26 Sacramento B18-103 and Butte County 18-19865.

1 Q. Were the standard procedures followed for
2 Ms. Schmidt's autopsy?

3 A. Yes, they were.

4 Q. And did you review all the facts and procedures
5 in her autopsy?

6 A. Yes, I did.

7 Q. Did you reach your own conclusion as to
8 Ms. Schmidt's cause of death?

9 A. Yes, I did.

10 Q. And what was your conclusion?

11 A. Fire-related injuries.

12 [Exhibit 1189 introduced
13 as evidence.]

14 BY MS. DUPRE-TOKOS:

15 Q. And then Exhibit 1189.

16 A. This is the identification summary report for
17 Sacramento B18-00103 and Butte County 18-19865
18 identifying the remains as Berniece Schmidt.

19 Q. Is there a note on there indicating that there
20 is a typo of the case number on the DNA report?

21 A. Yes, there is.

22 Q. And the case number that you read to us from the
23 identification summary report cover page is the correct
24 number?

25 A. That is correct.

26 [Exhibit 1190 introduced

1 as evidence.]

2 BY MS. DUPRE-TOKOS:

3 Q. Exhibit 1190.

4 A. Dr. Resk's autopsy report for John Sedwick,
5 Sacramento B18-83 and Butte County 18-19699.

6 Q. Were the standard procedures followed for
7 Mr. Sedwick's autopsy?

8 A. Yes, they were.

9 Q. And did you review all the facts and procedures
10 of his autopsy?

11 A. Yes, I did.

12 Q. Did you reach your own conclusion as to
13 Mr. Sedwick's cause of death?

14 A. Yes, I did.

15 Q. And what was that?

16 A. Fire-related injuries.

17 [Exhibit 1191 introduced
18 as evidence.]

19 BY MS. DUPRE-TOKOS:

20 Q. Exhibit 1191.

21 A. It's the identification summary report for
22 Sacramento B18-00083 and Butte 18-19699 identifying the
23 remains as John Sedwick.

24 [Exhibit 1192 introduced
25 as evidence.]

26 BY MS. DUPRE-TOKOS:

1 Q. And Exhibit 1192.

2 A. This is Dr. Resk's report for Don Shores,
3 Sacramento B18-80 and Butte County 18-19705.

4 Q. Were the standard procedures followed for
5 Mr. Shores' autopsy?

6 A. Yes, they were.

7 Q. Did you review all the facts and procedures in
8 Mr. Shores' autopsy?

9 A. Yes, I did.

10 Q. Did you reach your own conclusion as to
11 Mr. Shores' cause of death?

12 A. Yes, I did.

13 Q. And what was that conclusion?

14 A. Fire-related injuries.

15 [Exhibit 1193 introduced
16 as evidence.]

17 BY MS. DUPRE-TOKOS:

18 Q. And Exhibit 1193.

19 A. This is the identification summary report for
20 Sacramento B18-00080 and Butte 18-19705 identifying the
21 remains as Don Shores.

22 [Exhibit 1194 introduced
23 as evidence.]

24 BY MS. DUPRE-TOKOS:

25 Q. And Exhibit 1194.

26 A. This is the autopsy report of Dr. Resk for Cathy

1 Shores, Sacramento B18-79 and Butte County 18-19704.

2 Q. And were the standard procedures followed for
3 Ms. Shores' autopsy?

4 A. Yes, they were.

5 Q. Did you review all the facts and procedures in
6 Ms. Shores' autopsy?

7 A. Yes, I did.

8 Q. Did you reach your own conclusion as to
9 Ms. Shore' cause of death?

10 A. Yes, I did.

11 Q. And what was that conclusion?

12 A. Fire-related injuries.

13 [Exhibit 1195 introduced
14 as evidence.]

15 BY MS. DUPRE-TOKOS:

16 Q. And Exhibit 1195.

17 A. This is the identification summary report for
18 Sacramento B18-00079 and Butte 18-19704 identifying the
19 remains as Cathy Shores.

20 Q. And is there a handwritten correction on there
21 basically indicating that the DNA report lists Kevin
22 Keeling as a sister of Cathy Shores and it should
23 actually list him as a brother of Cathy Shores?

24 A. That is correct.

25 [Exhibit 1196 introduced
26 as evidence.]

1 BY MS. DUPRE-TOKOS:

2 Q. Exhibit 1196.

3 A. This is Dr. Resk's report for a doe, Sacramento
4 case B18-106 and Butte County 18-19948.

5 Q. And were the standard procedures followed for
6 this autopsy?

7 A. Yes, they were.

8 Q. Did you review all the facts and procedures of
9 this autopsy?

10 A. Yes, I did.

11 Q. Did you form your own conclusion as to the cause
12 of death for this person?

13 A. Yes, I did.

14 Q. And what was that conclusion?

15 A. Fire-related injuries.

16 [Exhibit 1197 introduced
17 as evidence.]

18 BY MS. DUPRE-TOKOS:

19 Q. Is there an identification summary report
20 attached?

21 A. There is a Butte County identification
22 supplement with the case 18-19948 identifying the
23 decedent as Judith Sipher.

24 Q. Is there an exhibit sticker on there?

25 A. It's 1197.

26 [Exhibit 1198 introduced

as evidence.]

BY MS. DUPRE-TOKOS:

Q. Do you have Exhibit 1198 in front of you?

A. Yes, I do.

Q. Is that a standard coroner's report that we've been looking at?

A. This is different than what we've been looking at.

Q. Okay. Where did -- what is the name on that report in front of you Exhibit 1198? Does it give the name of a decedent?

A. Larry Ronald Smith.

Q. And are you familiar with where Larry Ronald Smith died?

A. I am familiar in reviewing this report, yes.

Q. And where did he die?

A. U.C. Davis Medical Center in Sacramento.

Q. So he died after the fire? Would that be accurate?

A. Yes.

Q. And in your job as coroner -- and we touched on this -- or as a forensic pathologist -- and we talked about this a little bit beforehand. If someone is injured in the fire and then later dies in Sacramento County, would your office become involved if it was a fire-related death?

1 A. Yes.

2 Q. And did your office, in fact, review anything to
3 do with Mr. Smith to your knowledge?

4 A. I would imagine that we did, yes.

5 Q. Okay. And, in fact, a death certificate would
6 issue out of Sacramento County for Mr. Smith, wouldn't
7 it?

8 A. Yes.

9 Q. And if Mr. Smith had died at the hospital, there
10 likely would not be an autopsy report; correct?

11 A. That's correct.

12 Q. And that is the situation where you can trust
13 the doctor and what they say is the cause of death?

14 A. Correct.

15 Q. Okay. So then let's look at Exhibit 1199.
16 Actually, I'm sorry.

17 What was Mr. Smith's cause of death? Do you
18 know?

19 A. I don't know what the doctor put on the death
20 certificate. But in my review, it would be related to
21 results from being involved in the fire. He had body
22 burns and had complications that arose from that.

23 Q. So fire-related injuries as well?

24 A. Yeah.

25 Q. Okay. Thank you.

26 [Exhibit 1199 introduced

1 as evidence.]

2 BY MS. DUPRE-TOKOS:

3 Q. Now let's move on to 1199.

4 A. Okay. This is my report for Russell Stewart,
5 Sacramento B18-00025. It did not list the Butte County
6 case number.

7 Q. Okay. And did you follow the standard
8 procedures for this autopsy?

9 A. Yes, I did.

10 Q. And what was your conclusion as to the cause of
11 death for Mr. Stewart?

12 A. Thermal injuries.

13 [Exhibit 1200 introduced
14 as evidence.]

15 BY MS. DUPRE-TOKOS:

16 Q. And then Exhibit 1200.

17 A. That is the identification summary report for
18 Sacramento B18-00025 and Butte number 18-19546
19 identifying the remains as Russell Stewart.

20 I have documentation in the packet here on the
21 admitting form that has a Butte number as 18-19546 that
22 matches that identification.

23 Q. Thank you. And then a Sacramento case number
24 that also matches; correct?

25 A. That is correct.

26 MR. NOEL: We've been going now for almost an

1 hour. Out of the 30 autopsies we have approximately ten
2 left. Do we want to take a short break and come back and
3 finish it up? Our next witnesses won't be here until
4 3:15. So we can take a short break now and a short break
5 after Dr. Tovar and power through this and take a long
6 break after Dr. Tovar.

7 GRAND JUROR NUMBER FOUR: Power through.

8 MS. DUPRE-TOKOS: We're going to have to take a
9 short break for the other PowerPoint.

10 MR. NOEL: Okay.

11 [Exhibit 1201 introduced
12 as evidence.]

13 BY MS. DUPRE-TOKOS:

14 Q. All right. Let's look at Exhibit 1201.

15 A. This is Dr. Raven's report for Victoria Taft,
16 case Sacramento B18-00065 and Butte County 18-19633.

17 Q. Were the standard procedures followed for
18 Ms. Taft's autopsy?

19 A. Yes, they were.

20 Q. Did you review all the facts and procedures in
21 Ms. Taft's autopsy?

22 A. Yes, I did.

23 Q. Did you reach your own conclusion as to
24 Ms. Taft's cause of death?

25 A. Yes, I did.

26 Q. And what was that conclusion?

1 A. Thermal injuries.

2 [Exhibit 1202 introduced
3 as evidence.]

4 BY MS. DUPRE-TOKOS:

5 Q. And then Exhibit 1202.

6 A. This is the identification summary report for
7 Sacramento B18-00065. It does not have the Butte County
8 number, but the remains were identified as Victoria Taft.

9 [Exhibit 1203 introduced
10 as evidence.]

11 BY MS. DUPRE-TOKOS:

12 Q. Okay. And then Exhibit 1203.

13 A. This is Dr. Resk's report for Shirlee Teays.

14 Q. I believe it's Teays.

15 A. Teays, Sacramento B18-84 and Butte County
16 18-19712.

17 Q. Were the standard procedures followed for
18 Ms. Teays' autopsy?

19 A. Yes, they were.

20 Q. And did you look at all the facts and procedures
21 in her autopsy?

22 A. Yes, I did.

23 Q. Did you reach your own conclusion as to
24 Ms. Teays' cause of death?

25 A. Yes, I did.

26 Q. And what was that conclusion?

1 A. Fire-related injuries.

2 [Exhibit 1204 introduced
3 as evidence.]

4 BY MS. DUPRE-TOKOS:

5 Q. And 1204.

6 A. This is the identification summary report for
7 Sacramento B18-00084 and Butte County 18-19712
8 identifying the remains as Shirlee Teays.

9 [Exhibit 1205 introduced
10 as evidence.]

11 BY MS. DUPRE-TOKOS:

12 Q. Exhibit 1205.

13 A. This is Dr. Resk's report for Joanne Tracy,
14 Sacramento B18-76 and Butte 18-19669.

15 Q. Were the standard procedures followed for
16 Ms. Tracy's autopsy?

17 A. Yes, they were.

18 Q. And did you review all the facts and procedures
19 in her autopsy?

20 A. Yes, I did.

21 Q. Did you reach your own conclusion as to
22 Ms. Tracy's cause of death?

23 A. Yes, I did.

24 Q. And what was that conclusion?

25 A. Fire-related injuries.

26 [Exhibit 1206 introduced

1 as evidence.]

2 BY MS. DUPRE-TOKOS:

3 Q. And then Exhibit 1206.

4 A. This is the identification summary report for
5 Sacramento B18-00076 and Butte 18-19669 identifying the
6 remains as Joanne Tracy.

7 [Exhibit 1207 introduced
8 as evidence.]

9 BY MS. DUPRE-TOKOS:

10 Q. And Exhibit 1207.

11 A. This is my report for Ellen Walker, Sacramento
12 B18-00023 and Butte County 18-19532.

13 Q. And did you follow the standard procedures for
14 this autopsy?

15 A. Yes, I did.

16 Q. And what was your opinion on cause of death?

17 A. Thermal injuries.

18 Q. And I see a note in there that there were
19 commingled remains.

20 A. That is correct.

21 Q. And so the other individual is under case number
22 B18-00053?

23 A. That is correct.

24 [Exhibit 1208 introduced
25 as evidence.]

26 BY MS. DUPRE-TOKOS:

1 Q. Exhibit 1208.

2 A. This is the identification summary report for
3 Sacramento B18-00023 and Butte 18-19532 identifying the
4 remains as Ellen Walker.

5 [Exhibit 1209 introduced
6 as evidence.]

7 BY MS. DUPRE-TOKOS:

8 Q. Exhibit 1209.

9 A. Are these different?

10 Q. They may not be different.

11 A. Okay. So this is for -- this is Dr. Resk's
12 report for Donna Ware, Sacramento B18-91 and Butte County
13 18-19725.

14 Q. And were the standard procedures followed for
15 Ms. Ware's autopsy?

16 A. Yes, they were.

17 Q. Did you review all the facts and procedures in
18 Ms. Ware's autopsy report?

19 A. Yes, I did.

20 Q. And did you reach your own conclusion as to
21 Ms. Ware's cause of death?

22 A. Yes, I did.

23 Q. And what was your conclusion?

24 A. Fire-related injuries.

25 [Exhibit 1210 introduced
26 as evidence.]

1 BY MS. DUPRE-TOKOS:

2 Q. And Exhibit 1210.

3 A. This is the identification summary report for
4 Sacramento B18-00091 and Butte 18-19725 identifying the
5 remains as Donna Ware.

6 [Exhibit 1211 introduced
7 as evidence.]

8 BY MS. DUPRE-TOKOS:

9 Q. And Exhibit 1211.

10 A. This is Dr. Resk's report for a doe, Sacramento
11 B18-95 and Butte 18-19754.

12 Q. And were the standard procedures followed for
13 this autopsy?

14 A. Yes, they were.

15 Q. And did you review all the facts and procedures
16 then?

17 A. Yes, I did.

18 Q. Did you reach your own conclusion as to the
19 cause of death?

20 A. Yes, I did.

21 Q. And what was that conclusion?

22 A. Fire-related injuries.

23 [Exhibit 1212 introduced
24 as evidence.]

25 BY MS. DUPRE-TOKOS:

26 Q. And is there an identification summary report?

A. Yes, put out by Butte County on a circumstantial identification for their case number 18-19754 identifying the remains as Isabel Webb.

Q. And is that Exhibit Number 1212?

A. Yes, it is.

[Exhibit 1213 introduced
as evidence.]

BY MS. DUPRE-TOKOS:

Q. And Exhibit 1213.

A. This is Dr. Raven's report for Marie Wehe.

Q. Wehe.

A. Wehe, W-e-h-e, Sacramento B18-00028 and Butte County 18-19537.

Q. Okay. Were the standard procedures followed for Ms. Wehe's autopsy?

A. Yes, they were.

Q. And did you review all the facts and procedures in Ms. Wehe's autopsy?

A. Yes, I did.

Q. Did you reach your own conclusion as to the cause of death?

A. Yes, I did.

0. And what was that conclusion?

A. Thermal injuries.

Q. And then this also notes soot in airways; is that correct?

1 A. That's correct.

2 [Exhibit 1214 introduced
3 as evidence.]

4 BY MS. DUPRE-TOKOS:

5 Q. Exhibit 1214.

6 A. This is identification summary report for case
7 Sacramento B18-00028 and Butte 18-19537 identifying the
8 remains as Marie Lorain Wehe.

9 [Exhibit 1215 introduced
10 as evidence.]

11 BY MS. DUPRE-TOKOS:

12 Q. And Exhibit 1215.

13 A. This is Dr. Su's report for Kimberly Wehr.

14 Q. Wehr?

15 A. Wehr, Sacramento B18-00060. No Butte County is
16 listed on the case here.

17 Q. And were the standard procedures followed for
18 Ms. Wehr's autopsy?

19 A. Yes.

20 Q. Did you review all the facts and procedures in
21 her autopsy?

22 A. Yes, I did.

23 Q. And did you reach your own conclusion as to
24 Ms. Wehr's cause of death?

25 A. Yes, I did.

26 Q. What was that conclusion?

1 A. Thermal injuries and smoke inhalation.

2 Q. And then this also notes that there was soot in
3 the trachea; is that correct?

4 A. Yes.

5 [Exhibit 1216 introduced
6 as evidence.]

7 BY MS. DUPRE-TOKOS:

8 Q. And then Exhibit 1216.

9 A. This is the summary identification for
10 Sacramento B18-00060 and Butte County 18-19627
11 identifying the remains as Kimberly Wehr.

12 I do have a notation that on the outside of the
13 body bag at the time of the exam the Butte number was
14 18-19627. That matches the other identification summary.

15 [Exhibit 1219 introduced
16 as evidence.]

17 BY MS. DUPRE-TOKOS:

18 Q. And then it should jump to Exhibit 1219.

19 A. Yes. This is Dr. Su's report for David Young,
20 Sacramento B18-00041.

21 Q. And were the standard procedures followed for
22 Mr. Young's autopsy?

23 A. Yes, they were.

24 Q. Did you review all the facts and procedures in
25 Mr. Young's autopsy?

26 A. Yes, I did.

1 Q. Did you reach your own conclusion as to
2 Mr. Young's cause of death?

3 A. Yes, I did.

4 Q. What was your conclusion?

5 A. Thermal injuries and smoke inhalation.

6 [Exhibit 1220 introduced
7 as evidence.]

8 BY MS. DUPRE-TOKOS:

9 Q. And then Exhibit 1220.

10 A. It's the identification summary report for
11 Sacramento B18-00041 identifying the remains as David
12 Glenn Young. No Butte number was listed.

13 MS. DUPRE-TOKOS: Okay. And on that note we
14 need to take a short break.

15 I'll cover that one. We have another one to
16 cover, too.

17 [Conferring off the record.]

18 [Exhibit 1221 introduced
19 as evidence.]

20 BY MS. DUPRE-TOKOS:

21 Q. Okay. If you could look at Exhibit 1221 in
22 front of you. I know the PowerPoint says 1219, but it
23 should say 1221.

24 A. Okay. I have that here, yes.

25 Q. And did you perform that autopsy?

26 A. Yes, I did. This is for Sacramento case

1 B18-00053 and Butte County 18-20004.

2 Q. And the -- I'm sorry.

3 A. For a doe.

4 Q. Did you follow the standard procedures for this
5 autopsy?

6 A. Yes, I did.

7 Q. And did you reach a conclusion as to the cause
8 of death?

9 A. Yes, I did.

10 Q. And what was your conclusion?

11 A. Fire-related injuries.

12 [Exhibit 1222 introduced
13 as evidence.]

14 BY MS. DUPRE-TOKOS:

15 Q. Now, it says here "commingled remains." So were
16 these remains commingled with the individual in
17 Sacramento case number B18-00023?

18 A. Yes.

19 Q. Okay. And then Exhibit 1220, is that an
20 amendment -- or I guess actually it should be 1222.

21 A. Yes.

22 Q. Is that an amendment to the autopsy?

23 A. Yes. It's to correct some typos. The --

24 Q. Okay.

25 A. In my note on the original one I had the number
26 is not correct. So I corrected those to be that the

1 tissue that was found in these -- in this commingled case
2 belonged to case B18-00023 and the teeth, mandible, and
3 maxilla belonged to 18-00053.

4 Q. And 00053 is this current case; correct?

5 A. That is correct.

6 Q. Okay. And it didn't change the cause of death;
7 correct?

8 A. No.

9 Q. And to your knowledge, has any identification
10 been made on these remains to date?

11 A. No.

12 [Exhibit 1101 introduced
13 as evidence.]

14 BY MS. DUPRE-TOKOS:

15 Q. And then we should have one last exhibit in
16 front of you. I'm not certain what number that is.

17 A. Exhibit 1101.

18 Q. Thank you.

19 And again, 1101 is also not the typical autopsy
20 report that we've been looking at today; is that correct?

21 A. That is correct.

22 Q. And why is that?

23 A. This is another hospital death delayed, and it
24 was from a nursing center River Bend Nursing Center.

25 He -- this is Butte case 19-05657 and the decedent is

26 Paul Robert Ernest. And based on my review of the deputy

1 coroner's narrative and investigation, this is a result
2 of a fire-related injury that led to his demise.

3 Q. And did Mr. Ernest die in Sacramento County? Is
4 that where the nursing facility is?

5 A. Yes, that is correct.

6 Q. Okay.

7 A. In Sacramento County.

8 Q. And so this again would be a situation where the
9 death certificate would issue out of Sacramento County?

10 A. Correct.

11 Q. And the coroner's office would receive notice
12 because it was a fire-related death but had the option of
13 relying on the attending physician's information;
14 correct?

15 A. That is correct.

16 Q. Okay. And in this case Mr. Ernest did die from
17 his injuries sustained in the fire making it a
18 fire-related death?

19 A. Based on my review of this information, that is
20 my opinion, yes.

21 MS. DUPRE-TOKOS: Okay. Does anybody have any
22 questions?

23 BY MS. DUPRE-TOKOS:

24 Q. So, Dr. Tovar, in your professional experience
25 have you ever experienced anything like this?

26 A. No, I have not.

1 MS. DUPRE-TOKOS: Any other questions? No.

2 Thank you very much, Dr. Tovar. And you just
3 need to get the admonition again.

4 GRAND JURY FOREPERSON: Okay. Dr. Tovar, you
5 are admonished not to discuss or disclose at any time
6 outside of this jury room the questions that have been
7 asked of you or your answers until authorized by this
8 grand jury or the Court. A violation of these
9 instructions on your part may be the basis for a charge
10 against you of contempt of court. This does not preclude
11 you from discussing your legal rights with your own
12 attorney.

13 Dr. Tovar, what I have just said is a warning
14 not to discuss this case with anyone except the Court,
15 your lawyer, or the district attorney.

16 Do you have any questions?

17 THE WITNESS: No. Thank you.

18 GRAND JURY FOREPERSON: Thank you for your time
19 today.

20 THE WITNESS: You're welcome.

21 MS. DUPRE-TOKOS: And at this time, Madam
22 Foreperson, a break, I guess, for quite a bit.

23 GRAND JURY FOREPERSON: Okay.

24 MS. DUPRE-TOKOS: Sorry. The witnesses won't be
25 here until 3:15.

26 GRAND JURY FOREPERSON: Okay. So on break until

1 3:15.

2 [Break taken from
3 2:41 until 3:15 p.m.]

4 GRAND JURY FOREPERSON: Okay. All members of
5 the grand jury are present and ready to proceed.

6 MR. NOEL: Oh, go ahead. Back on the record.

7 MS. DUPRE-TOKOS: So with Dr. Tovar there were
8 some exhibits that were missing from the stack that we
9 will submit. And their numbers are 1055, 1056, 1057,
10 1060, 1121, 1125, 1144, and 1197. Now 1121 and 1125 we
11 did not specifically mention the numbers, but they were
12 up on the screen and they were discussed by Dr. Tovar.
13 So we will be submitting those separately.

14 GRAND JURY FOREPERSON: Okay. Okay. I think
15 we're ready.

16 [Witness enters the courtroom.]

17 GRAND JURY FOREPERSON: Captain Kluge, will you
18 raise your right hand to be sworn again, please.

19 THE WITNESS: Yes.

20 GRAND JURY FOREPERSON: Captain Kluge, do you
21 solemnly swear that the evidence you shall give in this
22 matter pending before the grand jury shall be the truth,
23 the whole truth, and nothing but the truth so help you
24 God?

25 THE WITNESS: I do.

26 GRAND JURY FOREPERSON: Thank you. Have a seat,

1 please.

2 **EXAMINATION**

3 BY MR. NOEL:

4 Q. Captain, you've already testified in this
5 proceeding a couple of times; correct?

6 A. Yes, Sir.

7 Q. And the first time you testified we talked about
8 evidence collection from the area including 27/222 and
9 specific parts that were taken off of 27/222; correct?

10 A. That is correct.

11 Q. Do you recall what specific parts were taken off
12 27/222?

13 A. I do.

14 Q. Could you please remind us.

15 A. Yes. So the -- starting with the conductor and
16 the conductor stiffener that was collected, that included
17 the corona arms and the corona plates and the insulation
18 strings with individual insulator bells we spoke of
19 before. It also included the hooks on the left and right
20 phase -- we call those right phase of the transposition
21 tower assembly and the support arms on the right and left
22 phase as well that supported that transposition conductor
23 assembly and the -- what we refer to as the dead-end
24 insulator and the hook dead-end insulators as well.

25 Q. What was done with all of the items that were
26 collected off of 27/222?

1 A. It was packaged and transported to a secure
2 holding facility.

3 Q. Now, you also testified about evidence
4 collection from 24/199.

5 A. I did.

6 Q. That was in March of 2018 as part of the
7 exemplar tower project; correct?

8 A. That is correct.

9 Q. And can you remind us of what evidence you
10 removed from 24/199.

11 A. The same assembly equipment as 27/222 as an
12 exemplar set.

13 Q. All right. And what was done with the evidence
14 that was removed from 24/199?

15 A. That was also booked and transported to a secure
16 holding facility for storage.

17 Q. All right. So semantically for 27/222 you said
18 it was packaged and sent to a security location, but was
19 it also booked?

20 A. Yes, it was. It was also booked.

21 Q. In April of 2019 did you remove the evidence
22 from -- or some of the evidence from 27/222 and 24/199?

23 A. I did.

24 Q. And give it to somebody else?

25 A. Yes, I did.

26 Q. Do you recall what evidence you removed from the

1 secure location and gave to someone else?

2 A. Yes, I do.

3 Q. What did you remove?

4 A. I removed the --

5 May I speak of the modifications to some
6 equipment that we did?

7 Q. We're going to get to that in a second.

8 A. Okay. The hooks from 27/222, the right and the
9 left phase, support hooks from 27/222 and the dead-end
10 hook as well from 27/222 as well as the -- I believe just
11 the right --

12 May I refer to my notes.

13 Q. Yes.

14 [Exhibit 1223 introduced
15 as evidence.]

16 THE WITNESS: Okay. I believe this is a copy of
17 the -- yes, this is a copy of the receipt of property
18 that was used during the transition of the evidence. And
19 this is marked 1223.

20 BY MR. NOEL:

21 Q. All right. And I'm going to put that up on the
22 board. We're looking at Exhibit 1223.

23 A. And this is the same likeness of the -- this is
24 a copy of the exact document with my signature on it.

25 Q. All right. Your signature being where?

26 A. On the right-hand corner just above my printed

1 name.

2 Q. All right. Received from is your signature?

3 A. Yes, Sir.

4 Q. And this receipt of property documents the
5 property, the evidence that you pulled out of the
6 evidence facility on April 19, 2019?

7 A. Yes, it is.

8 Q. And to whom did you give this evidence?

9 A. This was to Matt Catalano. I believe I'm
10 pronouncing that correctly.

11 Q. And for what purpose did you give this to
12 Catalano?

13 A. Matt Catalano is charged with securing this
14 evidence and transporting it to the metallurgy lab in
15 Quantico, Virginia.

16 Q. Now, included in the evidence that you turned
17 over to Catalano were four jumper arms; correct?

18 A. Yes.

19 Q. What you described as jumper arms?

20 A. Yes.

21 Q. Two from 24/199 and two from 27/222; correct?

22 A. Correct.

23 Q. Prior to giving that evidence to Catalano, did
24 you modify or change that evidence in any way?

25 A. I did.

26 Q. What did you do?

1 A. On the evidence removed from 27/222 specifically
2 referring to the right and left phase jumper arms, those
3 came to us in, I believe, 14-foot sections. And we were
4 unable to ship those in their entirety. We had removed
5 the jumper arms from 24/199 after we removed the
6 equipment from 27/222. And in doing so in the first --
7 in the beginning of that collection we had cut those down
8 to only receive the end sections that had the critical
9 components that we wanted to examine.

10 So in order to logistically make it possible to
11 ship these -- send these jumper arms, we had to cut them
12 down to a manageable size. I personally cut those using
13 a battery-operated reciprocating saw under the
14 observation of Matt Catalano.

15 Q. All right. So you cut off the relevant ends of
16 the arms --

17 A. I did.

18 Q. -- from 27/222?

19 A. I did.

20 [Exhibit 773 introduced
21 as evidence.]

22 BY MR. NOEL:

23 Q. All right. So showing you what's up as
24 Exhibit 773. And I'll ask you if you recognize what is
25 depicted in Exhibit 773.

26 A. May I stand up?

1 Q. Yes, absolutely. I'm sorry.

2 A. Yes, I recognize that.

3 Q. And what is depicted in 773?

4 A. That is the hook that was attached to the broken
5 insulator string from 27/222, the left phase.

6 Q. And that's one of the items that you turned over
7 to Special Agent Catalano?

8 A. Yes, it is.

9 [Exhibit 778 introduced
10 as evidence.]

11 BY MR. NOEL:

12 Q. Next up 778. Do you recognize Exhibit 773 or
13 what is depicted in 778?

14 A. I do.

15 Q. And what is depicted in Exhibit 773?

16 A. That is the right phase C-hook from the right
17 insulator string from the right phase.

18 Q. There's some writing on the C-hook. Do you
19 recognize that writing?

20 A. I do.

21 Q. And whose writing is that?

22 A. I believe that is Matt Catalano's writing that
23 was put on there as we separated it from the insulator
24 string the day we collected or transitioned the evidence
25 into the FBI's custody.

26 Q. All right. So the hook depicted in 778 is

1 another item that you turned over to Special
2 Agent Catalano?

3 A. Yes, it is.

4 [Exhibit 783 introduced
5 as evidence.]

6 BY MR. NOEL:

7 Q. And next is 783. Do you recognize what is
8 depicted in Exhibit 783?

9 A. Yes.

10 Q. And what is depicted in 783?

11 A. That is the dead-end hook from 27/222.

12 Q. And is that another item that you turned over to
13 Special Agent Catalano?

14 A. Yes, it was.

15 [Exhibit 787 introduced
16 as evidence.]

17 BY MR. NOEL:

18 Q. Exhibit 787. Do you recognize what is depicted
19 in Exhibit 787?

20 A. Yes, I do.

21 Q. And what is depicted in 787?

22 A. That is the right phase support hook from
23 24/199.

24 Q. Is that right phase hook from 24/199 one of the
25 items that you turned over to Special Agent Catalano?

26 A. Yes, it is.

1 [Exhibit 794 introduced
2 as evidence.]

3 BY MR. NOEL:

4 Q. Okay. It's upside down but Exhibit 794. Do you
5 recognize what is depicted in 794?

6 A. I do.

7 Q. What is depicted in Exhibit 794?

8 A. That's the left phase support hook, C-hook from
9 24/199.

10 Q. And is the hook depicted in 794 one of the hooks
11 that you turned over to Special Agent Catalano?

12 A. Yes, it is.

13 [Exhibit 799 introduced.
14 as evidence.]

15 BY MR. NOEL:

16 Q. And 799. Do you recognize the hook depicted in
17 Exhibit 799?

18 A. I do.

19 Q. What is the hook depicted in 799?

20 A. That is the dead-end hook from 24/199.

21 Q. Is that also one of the hooks that you turned
22 over to Special Agent Catalano?

23 A. It is.

24 [Exhibit 801 introduced
25 as evidence.]

26 BY MR. NOEL:

Q. All right. On to 801. Do you recognize what is depicted in Exhibit 801?

A. I do.

Q. What is depicted in Exhibit 801?

A. I believe that is the right phase from 24/199.

Q. And is that another piece of evidence that you turned over to Special Agent Catalano?

A. Yes, it is.

[Exhibit 808 introduced
as evidence.]

BY MR. NOEL:

Q. Exhibit 808. Do you recognize what is depicted in Exhibit 808?

A. Yes, I do.

Q. What is depicted in 808?

A. That is the left phase jumper arm from 24/199.

Q. Did you also turn over the arm depicted in 808 to Special Agent Catalano?

A. I did.

[Exhibit 813 introduced
as evidence.]

BY MR. NOEL:

Q. Exhibit 813. Do you recognize what is depicted in that photograph?

A. I do.

Q. And what is depicted in that photograph?

1 A. That is the right jumper support arm from
2 27/199. Excuse me. 27/222.

3 Q. All right. And this one you can actually see
4 the entire length of the section; correct?

5 A. Correct.

6 Q. And it looks like about a two-foot section after
7 you cut it off?

8 A. Yes.

9 Q. And is the jumper arm -- the cut jumper arm
10 depicted in 813 another one of the items that you turned
11 over to Special Agent Catalano?

12 A. Yes, it is.

13 [Exhibit 819 introduced
14 as evidence.]

15 BY MR. NOEL:

16 Q. And 819. Do you recognize what is depicted in
17 819?

18 A. I do.

19 Q. What is depicted in 819?

20 A. That is the left -- that is the left jumper
21 support arm from 27/222.

22 Q. And again, we can see the entire length of the
23 piece?

24 A. Yes.

25 Q. Approximately two feet?

26 A. Yes, it is.

1 Q. And is the jumper arm depicted in 819 also one
2 of the items that you turned over to Special
3 Agent Catalano?

4 A. Yes, it is.

5 Q. And all of those items were turned over to
6 Special Agent Catalano on April 19th, 2019; correct?

7 A. Correct, in the morning.

8 Q. All right. And that was done -- there's an
9 address on there on, I believe, Steiffer?

10 A. Steiffer.

11 Q. Steiffer in Magalia?

12 A. Yes.

13 Q. And that's a Cal Fire facility?

14 A. Yes, it is.

15 MR. NOEL: That's all I have.

16 Do we have any questions from the jurors? We're
17 good.

18 All right. Thank you, Captain.

19 THE WITNESS: Thank you.

20 MR. NOEL: She has the admonition for you. You
21 should be used to this.

22 GRAND JURY FOREPERSON: Captain Kluge, you are
23 admonished not to discuss or disclose at any time outside
24 of this jury room the questions that have been asked of
25 you or your answers until authorized by this grand jury
26 or the Court. A violation of these instructions on your

1 part may be the basis for a charge against you of
2 contempt of court. This does not preclude you from
3 discussing your legal rights with your own attorney.

4 Captain Kluge, what I have just said is a
5 warning not to discuss this case with anyone except the
6 Court, your lawyer, or the district attorney.

7 Do you have any questions?

8 THE WITNESS: No.

9 GRAND JURY FOREPERSON: Thank you for your time.

10 THE WITNESS: Thank you, Madam Foreperson.

11 [Witness exits the courtroom.]

12 MR. NOEL: All right. Next up Special Agent
13 Matthew Catalano. "SA" is the abbreviation for special
14 agent.

15 [Witness enters the courtroom.]

16 GRAND JURY FOREPERSON: Would you mind standing,
17 please, so I can swear you in.

18 Special Agent Catalano, do you --

19 Raise your right hand, please.

20 Do you solemnly swear that the evidence you
21 shall give in this matter pending before the grand jury
22 shall be the truth, the whole truth, and nothing but the
23 truth so help you God?

24 THE WITNESS: I do.

25 GRAND JURY FOREPERSON: Thank you. Have a seat,
26 please.

EXAMINATION

BY MR. NOEL:

Q. For the record, can you state your name spelling -- state your full name spelling your last.

A. Yes. Matthew Catalano, C-a-t-a-l-a-n-o.

Q. Are you employed?

A. I am employed with the FBI; Federal Bureau of Investigation.

Q. In what capacity?

A. I'm a special agent.

Q. Just because we have some time here and I'm sure curiosity, what exactly is a special agent to the FBI?

A. A special agent is a federal agent -- a federal investigator given powers through the executive branch to gather and present evidence in federal and law enforcement proceedings.

Q. What kind of law enforcement training do you have?

A. My training in law enforcement started at the FBI academy. It was a 21-week course in Quantico, Virginia. There I learned about the constitution, federal law. I learned about investigative techniques, tactics, and the like.

Q. How long have you been with the FBI?

A. I've been a special agent for ten years.

Q. Any law enforcement experience prior to that?

1 A. No.

2 Q. All right. In April of 2019 were you asked to
3 secure evidence from the Camp Fire investigation for
4 transport to the FBI lab?

5 A. Yes, I was.

6 Q. And in doing so did you meet with Captain Tom
7 Kluge of Cal Fire?

8 A. Yes, I did.

9 Q. Did that occur on April 19th of 2019?

10 A. Yes, it did.

11 Q. And that occurred on Steiffer Road at a Cal Fire
12 facility in the area of Magalia?

13 A. Yes.

14 Q. And you have -- in front of you we have up on
15 the big board what is marked as Exhibit 1223 for
16 identification. Do you recognize 1223?

17 A. I do.

18 Q. What is 1223?

19 A. This is an FBI property receipt. I did this. I
20 prepared it with Captain Kluge. These listed items here
21 are the ten items that I signed for on April 19th.

22 Q. All right. Why a receipt for property?

23 A. We use this on the FBI side to start or initiate
24 the chain of custody.

25 Q. So the ten items that are listed on this receipt
26 of property Exhibit 1223 are the ten items that you

1 received from Captain Kluge that day?

2 A. Yes, Sir.

3 Q. What did you do with those items?

4 A. I took those items down to the Sacramento FBI
5 office. We photographed them with a photographer and
6 then I left them with the evidence control room in
7 Sacramento which -- and then I sent them a lead to have
8 those items transported to the FBI lab for examination.

9 Q. So you received these items from Cal Fire and
10 then you booked these into the FBI evidence system;
11 correct?

12 A. That's correct.

13 Q. All right. So I'm going to go through a couple
14 of those items. You have up in front of you Exhibit 787.
15 Do you recognize 787?

16 A. Yes, I do.

17 Q. How do you recognize 787?

18 A. A couple ways. I have seen it many times. I've
19 seen the photo. That's my handwriting in the Magic
20 Marker. I had recognized it as the right phase hook for
21 Transposition Tower 24/199.

22 Q. So the big black lettering "24/199 RO" with a
23 slash in it, that is your handwriting?

24 A. Yes, it is.

25 Q. And is this one of the items that you received
26 on April 19th from Captain Kluge?

1 A. Yes, it is.

2 Q. Is this one of the items that you booked into
3 the FBI evidence system for transport to the FBI lab in
4 Washington D.C.?

5 A. In Quantico, Virginia.

6 Q. Quantico.

7 A. Yes, it is.

8 Q. How do I not know that? It's been a long day.

9 And the reason they're making fun of me is that
10 my father was an FBI agent for 31 years and worked very
11 closely with the lab. And I've got the T-shirts to show
12 it, but they don't fit me anymore.

13 All right. Next up is 794. And I would ask you
14 the same question. Do you recognize the item depicted in
15 Exhibit 794?

16 A. Yes, I do.

17 Q. And how do you recognize that?

18 A. Again, this is my handwriting on it. This is
19 the left phase hook from Transposition Tower 24/199.

20 Q. And is this one of the items that was turned
21 over to you from Captain Kluge to -- that you placed into
22 the FBI evidence for transport to the FBI lab?

23 A. Yes, it is.

24 Q. And 799. Do you recognize 799?

25 A. Yes, I do. It is the dead-end hook for the same
26 tower.

1 Q. And how do you recognize this?

2 A. Again, I recognize my handwriting and I've seen
3 it many times.

4 Q. And is the hook depicted in 799 one of the items
5 you received from Captain Kluge on April 19th and
6 subsequently booked into the FBI evidence system for
7 transport to the lab?

8 A. Yes, it is.

9 Q. And 801. Do you recognize Exhibit 801?

10 A. I do.

11 Q. And how do you recognize what's depicted in 801?

12 A. I recognize it because I have seen it numerous
13 times. Also, I see my handwriting in the black marker.
14 This is the end section for the -- oh, gosh, the -- the
15 jumper arm for the right phase of the same tower 24/199.

16 Q. And this another item that was provided to you
17 by Captain Kluge and you booked it into the FBI system
18 for transport to the FBI lab?

19 A. Yes, it is.

20 Q. And 808. Do you recognize what's depicted in
21 808?

22 A. I do for the same reasons. This is the left
23 phase end section of the jumper arm taken from
24 Transposition Tower 24/199.

25 Q. And again, this is evidence that you received on
26 April 19th from Captain Kluge and subsequently booked

1 into FBI evidence for transport to the lab?

2 A. Yes, it is.

3 Q. I guess we should briefly go through the
4 evidence taken from 24/199. Were you present for the
5 removal of that evidence?

6 A. Yes, I was. I was present the day that PG&E
7 removed that in conjunction with Cal Fire and Butte
8 County District Attorney's Office.

9 Q. And what was your assignment that day?

10 A. The FBI had opened a subsequent case or a
11 parallel case, I should say, to this one. By "this one"
12 I mean the Cal Fire and the Butte County District
13 Attorney's Office case in a way to support them and
14 specifically for the evidence as we were asked to help
15 receive the evidence, organize the evidence, and then get
16 it examined by the lab.

17 So the first part of that was the reception of
18 the evidence. And this happened -- I do not recall the
19 day but in conjunction with a crew from PG&E and the
20 district attorney's office as well as Cal Fire.

21 Q. And what was your assignment on that day? What
22 were you doing?

23 A. I was part of a -- I think there were three of
24 us. I'm also a member of the FBI's evidence response
25 team. So I am trained in the forensic collection of
26 evidence. And as part of that team we went out and

1 helped recover the evidence, package it, and label it.

2 So that was my job. I served as lead on that team.

3 MR. NOEL: I have nothing further.

4 Does the jury have anything?

5 GRAND JUROR NUMBER FOUR: Can I just say it
6 instead of writing it?

7 MR. NOEL: Probably should write it down. We
8 need a record of it.

9 Here, we can go ahead with that one while he's
10 finishing his.

11 [Conferring off the record.]

12 BY MR. NOEL:

13 Q. All right. First question. And this obviously
14 would just be from the moment that you took possession on
15 behalf of the FBI of the evidence.

16 "Are you personally certain that none of these
17 items has been removed from secure evidence storage and
18 transportation and tampered with in any way?"

19 A. Yes.

20 Q. And the second question, again if you know. "Do
21 you know how old any of these parts are?"

22 A. I can't speak to how old the parts are.

23 MR. NOEL: Anything else?

24 Thank you, Agent.

25 THE WITNESS: Thank you.

26 MR. NOEL: The foreperson will have an

1 admonition for you.

2 GRAND JURY FOREPERSON: Okay. Special
3 Agent Catalano, you are admonished not to discuss or
4 disclose at any time outside of this jury room the
5 questions that have been asked of you or your answers
6 until authorized by this grand jury or the Court. A
7 violation of these instructions on your part may be the
8 basis for a charge against you of contempt of court.
9 This does not preclude you from discussing your legal
10 rights with your own attorney.

11 Special Agent Catalano, what I have just said is
12 a warning not to discuss this case with anyone except the
13 Court, your lawyer, or the district attorney.

14 Do you have any questions?

15 THE WITNESS: No.

16 GRAND JURY FOREPERSON: Thank you for your time
17 today.

18 THE WITNESS: Thank you.

19 [Witness exits the courtroom.]

20 MR. NOEL: All right. I am absolutely
21 flabbergasted that it is a quarter to 4:00 and we are
22 done for the day. Oh, we need to make a record.

23 MS. DUPRE-TOKOS: Okay. At this time we would
24 like to move in Exhibits 1055, 1056 and 1057 and then
25 Exhibits 1059 --

26 Do you want me to read the individual numbers or

1 just say "through"?

2 GRAND JURY SECRETARY: Just "through."

3 MS. DUPRE-TOKOS: That's what I was rooting for.

4 -- through 1216 and then 1219 through 1222 and
5 then Exhibit 1223. Those are all the exhibits with
6 Dr. Tovar.

7 [Exhibits 1055 through 1057, 1059
8 through 1216, and 1219 through 1222
9 admitted into evidence.]

10
11 [DISCUSSION OMITTED.]

12
13 [Matter adjourned at 3:57 p.m.]

14 --oOo--
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COURT REPORTER'S CERTIFICATE

This is to certify that I, Lisa McDermid Welch, a Certified Shorthand Reporter of the State of California was present at the time and place the foregoing grand jury proceedings were had and taken in the within matter; and that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings; and afterwards caused my said shorthand writing to be transcribed into typewriting; and the foregoing pages, beginning at the top of Page 1 to and including Page 197 hereof, constitute a full, true, accurate, and complete record of the proceedings.

DATED: This 6th day of June, 2022.

[Lisa McDermid Welch](#)

LISA MCDERMID WELCH, CSR, RPR
CSR LICENSE NO. 10928

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

BCSC-2019-GJ-01

REDACTED
**CERTIFIED
COPY**

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

FRIDAY, JANUARY 31, 2020

VOLUME 34

OROVILLE, BUTTE COUNTY, CALIFORNIA

JENNIFER L. HUNT, CSR 10735, OFFICIAL COURT REPORTER

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APPEARANCES:

FOR THE BUTTE COUNTY

DISTRICT ATTORNEY'S OFFICE:

(Not present) Michael L. Ramsey, District Attorney

(Present) Marc Noel, Deputy District Attorney

Jennifer Dupre-Tokos, DDA

25 County Center Drive

Oroville, California 95965

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OROVILLE, BUTTE COUNTY, CALIFORNIA

FRIDAY, JANUARY 31, 2020

8:30 a.m.

(Confidential Grand Jury Proceedings)

-oOo-

[PROCEEDINGS OMITTED.]

[ROLL CALL OMITTED.]

[DISCUSSION OMITTED.]

GRAND JURY FOREPERSON: Mr. Ma, before you have
a seat, would you please raise your right hand to be
sworn.

THE WITNESS: Yes.

WARREN MA
having been called as a witness in
the matter now pending, having been first
duly sworn, testifies as follows:

THE WITNESS: Yes.

GRAND JURY FOREPERSON: Thank you. Have a
seat, please.

EXAMINATION

BY MR. NOEL

Q. Mr. Ma, can you please state and -- state your

1 full name, spelling your last name for the record.

2 A. Sure thing. My first name is Warren; last name

3 Ma, M-A.

4 Q. Are you currently employed?

5 A. Yes, I am.

6 Q. And by whom?

7 A. By copy called PicsArt.

8 Q. How long have you been employed with that

9 company?

10 A. Since June of last year. So roughly seven

11 months or so.

12 Q. Okay. Were you employed prior to going to work

13 for PicsArt?

14 A. Yes, I was.

15 Q. By whom?

16 A. PG&E.

17 Q. In what capacity?

18 A. In the Business Finance Department.

19 Q. How long were you employed with PG&E?

20 A. Almost six years.

21 Q. What is the business finance department?

22 A. It is under the finance department within the

23 company.

24 Q. Okay. What is the main focus or business

25 process of the Business Finance Division?

26 A. Some of the main focus, at least in my role,

1 was around budgeting forecasting reporting.

2 Q. Okay. What, what kind of education or training
3 do you have that qualified you for that job?

4 A. Sure. I went to the University of California,
5 Davis. I majored in managerial economics. And
6 ultimately I believe that helped me get a role with the
7 Business Finance at PG&E.

8 Q. What is managerial economics?

9 A. It's mainly around economic studies, macro
10 theories, micro theories. It was the closest thing to
11 finance over at the University of California, Davis,
12 California of Davis.

13 Q. Okay. Can you explain to us what macro and
14 micro are.

15 A. I can't fully explain that.

16 Q. All right. Walk us through your career with
17 PG&E, where you started and where you ended up.

18 A. Sure thing.

19 So I started my career at PG&E in June 2013,
20 about a couple weeks after I graduated from UC Davis. I
21 started off in the Business Finance Electrician
22 Department. I was an Associate Business Finance Analyst.
23 I mainly focused around, at least in that role in 2013,
24 focused around supporting the Transmission operation
25 organization. Mainly focused around high-level reporting
26 automated reporting, helping out the team in any capacity

1 that I could.

2 Eventually in 2014, I began supporting the
3 Transmission Line Department, and I continued supporting
4 various programs within Transmission Line until I left
5 the company in June of 2019.

6 Q. What do you mean when you say you were
7 supporting Transmission or Transmission Line?

8 A. Supporting as in providing financial support
9 around reporting, helping out with any budget sort of
10 cycles in planning processes. I would say those are the
11 main focus areas.

12 Q. Okay. Can you explain to us kind of the nuts
13 and bolts of the job of supporting Transmission Line.

14 A. What do you mean by "nuts and bolts"?

15 Q. The basics of what you were doing.

16 A. Got it.

17 A lot of pulling reports from the internal
18 database, financial reports, in terms of numbers spent or
19 costs spent. Looking at that to prepare a budget. A lot
20 of other things in regards to the accounting;
21 reconciliation, creating orders, moving costs to the
22 right orders in case there's any misalignments. Those
23 are some areas that I worked on as an associate analyst
24 supporting technician operations.

25 Q. Okay. Did you have any power over what
26 projects either did or did not get done?

1 A. No.

2 Q. Did you have any power over how money was
3 spent?

4 A. No.

5 Q. In essence, would it be safe to say that your
6 job was just tracking how the money was spent?

7 A. Yes.

8

9 (Grand Jury Exhibit 1224 introduced.)

10

11 Q. All right. You should have in front of you a
12 stack of exhibits with exhibit tags. We have them up on
13 the big board. And first, I'm going to ask you to look
14 at Exhibit 1224.

15 A. Okay.

16 Q. Got that?

17 A. Got it.

18 Q. Recognize 1224?

19 A. I vaguely recall it.

20 Q. Okay. Can you explain to us briefly what 1224
21 is.

22 A. Which part of 1224?

23 Q. Just give us a general idea of what it is.

24 A. Sure thing.

25 So reading this document, Doug Durbin at that
26 point was my supervisor, and he's introducing myself and

1 Michael Olson, my counterpart on the same team, to the
2 Transmission Line's team as Business Finance Support for
3 the organization.

4 Q. All right. So first, this is a copy of an
5 email; correct?

6 A. Correct.

7 Q. And this is an email from somebody named Doug
8 Durbin?

9 A. Yes.

10 Q. And this is an email that happened or came out
11 on January 3rd, 2014?

12 A. Yes.

13 Q. All right. So this email was sent out to a
14 bunch of people. Can you tell us who all, or any, of
15 those people are?

16 A. I can tell you who I remember.

17 Q. Sure.

18 A. First person on the "to" line, Harold Taylor,
19 was the senior director of Transmission Lines at that
20 point. Bob Daniels, I believe he was a manager of
21 Engineering. Clint Hulsey (phonetic) was a principal
22 portfolio manager. I don't recall the specific roles of
23 these next few individuals, but I'll name who I see that
24 I recognize. Sean Cleason (phonetic) was the Expense
25 Program Manager.

26 And then moving on down to the CC portion of

1 the email, I recognize my teammate. Jennie Lou
2 (phonetic) was our manager at that time. Michael Olson,
3 who I alluded to earlier, was my counterpart on the
4 Transmission Lines team, who was also an analyst. Damon
5 Calver (phonetic), as mentioned in this email, previously
6 supported Transmission Lines supporting the Expense
7 Program as Business Finance. And then Vincent Long was a
8 supervisor supporting Substations at that point in time.

9 Q. Okay. Try to define a couple of terms that you
10 mentioned. What is a principal portfolio manager?

11 A. I can't describe that fully.

12 Q. How about an expense program manager?

13 A. I can't define the role.

14 Q. Okay. Now, you said that you were on the
15 expense side; correct?

16 A. In 2014?

17 Q. Yes.

18 A. Yes.

19 Q. Can you explain to us the difference between
20 expense and capital?

21 A. Sure. At a high level, they fall within two
22 different cost categories. A lot of capital work
23 involved larger capital projects. On the expense side,
24 that's where you see patrols and inspections as well as
25 any sort of expense maintenance repair work as well.

26 Q. Do you budget?

1 A. Yes.

2 Q. Money comes from two different sources?

3 A. I can't fully answer that question.

4 Q. Okay. So you can't fully explain, but why
5 don't you just let us know what, give us your
6 understanding of it.

7 A. My own understanding?

8 Q. Yes.

9 A. If I had to provide my own understanding of it,
10 capital projects eventually do get -- at PG&E, capital
11 projects, or capital expenditures, do eventually get,
12 they eventually come back to PG&E by investing in certain
13 capital projects. They eventually do get that money paid
14 back. As far as expense, those go straight to the bottom
15 line. My understanding.

16 Q. Right. So the expense projects would come out
17 of profits; right?

18 A. I'm not in the position to answer that since I
19 didn't support the profit side at PG&E.

20 Q. Okay.

21 A. Or the revenue side.

22 Q. All right. So you started in this position
23 supporting the T-line expense budget in January of '14;
24 correct?

25 A. Correct.

26 Q. So explain to us what your duties were, how it

1 was that you supported the Transmission Line expense
2 budget?

3 A. Sure thing.

4 In 2014, I would help out with budgeting,
5 financial reporting, as well as finance forecasting.

6 Q. So can you go a little deeper on budgeting.
7 How did you -- what did you do in terms of budgeting?

8 A. So in regards to budgeting, as part of the
9 budgeting cycle at PG&E, we would plan around the
10 September time frame for the following year. So in
11 regards to what we did for budgeting, we would collect --
12 we would extract the historical information from the
13 system, take that number, review it with the Transmission
14 Line's operation team. And ultimately we would get
15 numbers from their team as well as what they manage
16 various projects, various programs. Then we would
17 ultimately put those numbers in the system as a budget
18 number. And then actually -- sorry, taking a step back
19 -- before I get to put in the system, gets reviewed and
20 approved by the Transmission Line's organization first,
21 all the way up to the senior director. And then
22 ultimately that leads to more discussions with the
23 overall transmission team. And then we end up planning
24 those numbers in the system for the budget for the
25 following year.

26 Q. So what type of historical info would you

1 extract?

2 A. Mainly around hours per unit. So total amount
3 of hours spent on doing certain jobs. How many units
4 were complete on those jobs. And then ultimately getting
5 back hours per unit number.

6 Q. All right. You also said you did financial
7 reporting. What is financial reporting?

8 A. Financial reporting was mainly done on a
9 monthly basis. So that would be extract reports, actual
10 costs spend versus budget or versus forecast. Just to
11 compare how we're trending, to basically give leadership
12 an assessment how we're performing so far.

13 Q. Why is that important?

14 A. That is important to see the financial health
15 of the program, to see whether or not we're trending
16 high, trending low; what can we do to help out if we're
17 trending high, above budget; what areas where we can
18 increase spending if we're low on budget. That's why I
19 feel that it's important.

20 Q. Okay. And finally, what was financial
21 forecasting?

22 A. Yes. Financial forecasting was done on a
23 monthly basis. That is a reassessment of the budget.
24 Basically called out anywhere where we're maybe trending
25 high or trending low, and adjust that in the forecast.

26 Q. All right. You did this job you said until

1 what 20, 2017?

2 A. Yes.

3

4 (Grand Jury Exhibit 1225 introduced.)

5

6 Q. You should have in front of you Exhibit No.
7 1225. Do you see Exhibit 1225?

8 A. Yes.

9 Q. And this is an email chain, but it starts at
10 the top an email from you. Do you recognize it?

11 A. Yes, I do.

12 Q. All right. This email's dated August 28th,
13 2017. All right. So this is an email you sent August
14 28th, 2017 --

15 A. Yes.

16 Q. -- correct?

17 A. Correct.

18 Q. And so tell us what this email is about.

19 A. Sure thing.

20 This email is in regards to specific
21 Transmission Line Business Finance Support that happened
22 in August of 2017. At this point in time, my supervisor
23 left to an opportunity within Business Finance. And so
24 at this point in time, my supervisor went on to a new
25 opportunity within Business Finance, and I ended up
26 taking a different role -- still supporting Transmission

1 Line -- but my role was a business finance analyst
2 expert. I was no longer supporting the expense program
3 anymore. And I was basically introducing the
4 Transmission Line team to my backfill, which I mention
5 here is Nisha Patel. So that's what this email is about
6 is basically giving them an update around Business
7 Finance support changes, and there was a soft transition
8 occurring where we're going to slowly backfill the
9 position.

10 Q. So what was your new job?

11 A. My title was a Business Finance Analyst Expert.

12 Q. And what does that mean?

13 A. I was more high-level Transmission Line
14 support. Basically consolidating input from the capital
15 analyst, which was Michael Olson, and the expense
16 analyst, which is Nisha Patel, rolling up that, helping
17 lead overall monthly financial reviews of leadership, and
18 then funneling that back up to my manager to have my
19 manager provide financial review and support to the
20 overall Transmission operations organization.

21 Q. Okay. And a few names in here. Who is Matt
22 Heitzmann?

23 A. Matt Heitzmann was my former supervisor at that
24 point in time who took on a new role.

25 Q. Okay. And who is Eric Back?

26 A. Eric Back at that time was the senior director

1 of Transmission Lines.

2 Q. And Robert Cupp?

3 A. At that point in time, I don't specifically
4 recall his role, but he was in the Maintenance and
5 Construction organization.

6 Q. Greg Gabbard?

7 A. At that point, I'm not sure if he was a
8 director or senior manager, but he oversaw the
9 Engineering Services Department.

10 Q. Okay. Jefferson Heidelberger?

11 A. He was in the Transmission Line Department at
12 that specific time frame. I don't recall his exact
13 position.

14

15 (Grand Jury Exhibit 1241 introduced.)

16

17 Q. Okay. All right. So next up you have Exhibit
18 1241. Should be right there. It was there.

19 A. Sorry. I don't see the document.

20 Q. Because I left it out the first time around,
21 and had to -- so I put it --

22 All right. Do you recognize 1241?

23 A. I vaguely remember this.

24 Q. Okay. What is 1241?

25 A. It looks like this is an org chart showing
26 support for certain programs within the capital and

1 expense budget.

2 Q. Okay. So you're listed down there?

3 A. Yes.

4 Q. Finance support. Are you familiar with what

5 the, what each column is?

6 A. Not fully. I vaguely remember these MWC

7 numbers.

8 Q. All right. Do you recall what MWC 93 is?

9 A. I don't recall everything within MWC 93.

10 Q. Okay. And then you have the expense that

11 you're supporting, which includes Maintenance, P and I,

12 Mark and Locate, and Special Projects?

13 A. Yes.

14 Q. Does P and I stand for patrol and inspection?

15 A. Yes.

16 Q. Okay. So that last column on the right would

17 be all the people that were supporting the Transmission

18 Line patrol and inspections; correct?

19 A. No. It would be everybody supporting expense,

20 which includes various other programs listed in the box

21 as well.

22 Q. But expense would include the patrol and

23 inspection?

24 A. Yes.

25 Q. Do you remember what the MWC stands for?

26 A. MWC stands for Major Work Category.

1 Q. And what do you remember about the different
2 numbers 70, 71, 72, 93?

3 A. In regards to what I remember, MWC 70
4 represented primarily the Pole Replacement Program as
5 well as a Steel Structure Replacement Program, I believe.

6 Q. Okay. Did you ever work in that area?

7 A. Briefly.

8 Q. What was briefly?

9 A. I can't recall the specific time frame. I
10 would jump in whenever my teammates needed help.

11 Q. What do you recall about the Steel Structure
12 Replacement Program?

13 A. I don't recall a lot. I was more involved
14 around the Pole Replacement Program.

15 Q. And then what do you recall about MWC 71 and
16 72?

17 A. I don't recall much around that. I do remember
18 that, just looking at the description here, roads,
19 boardwalks, those are some of the capital projects that
20 were within that MWC.

21 Q. All right. Did you ever work in those
22 projects?

23 A. I supported it for a bit. Mainly just looking
24 at the forecast that was put in the system from the
25 project manager and rolling that up into the overall
26 forecast for Transmission Lines.

1 Q. Okay. What do you mean by "forecast"?

2 A. There would be various project managers that
3 would manage those programs, or these projects, and they
4 would put their system, or put their forecast in the
5 system that we extract to roll up into overall
6 Transmission Lines forecast.

7 Q. Can you explain to us what is a forecast.

8 A. It's an estimated amount of spent.

9 Q. Okay. So forecast is how much that they
10 believe they're going to spend on something?

11 A. Yes.

12 Q. And then finally, the MWC 93, what do you
13 recall about that Major Work Category?

14 A. Main program I can recall from that MWC 93 is
15 capital maintenance.

16 Q. What is capital maintenance?

17 A. For example, insulator replacements. I don't
18 remember all the other items within that MWC.

19 Q. How is capital maintenance different from
20 expense maintenance?

21 A. I'm not an expert in this field, but it's due
22 to capital accounting guidelines within PG&E.

23 Q. Are you familiar with those guidelines?

24 A. No.

25 Q. Who is, who -- if you had to ask a question
26 about the capital accounting guidelines, who would you go

1 to?

2 A. I would recommend somebody from the Capital
3 Accounting Department. I believe at that point in time
4 our capital accounting support was Weiwen Wang.

5 Q. So there's actually a division, the Capital
6 Accounting Department?

7 A. Yes.

8 Q. And for the court reporter, do you know how to
9 spell Weiwen Wang?

10 A. I think I remember. Weiwen is W-E-I-W-E-N, I
11 believe. Last name W-A-N-G.

12 Q. I think the middle is W-E-I-N. Same thing, I'd
13 have to check it.

14 All right. So is that who you would go to if
15 you had a question about capital expense budgets or
16 capital accounting issues?

17 A. Yes. In regards to any sort of capital
18 accounting issues or capital accounting I needed, I would
19 reach out to her.

20 Q. All right. Are you familiar -- well, the term
21 that we know of it, you may have a different term, is
22 "allotments." The amount of time that is allotted for
23 patrols and inspections.

24 A. Okay.

25 Q. Were you involved in determining that?

26 A. In regards -- can you clarify allotments one

1 more time?

2 Q. The amount of time allotted to the troublemen
3 or to the individual T-line headquarters to do individual
4 patrols or inspections.

5 A. We would help out during the budgeting cycle in
6 regards to setting targets.

7 Q. Okay. So what are, what the targets? Explain
8 that to us.

9 A. Sure thing.

10 As I alluded to earlier, as part of budget
11 planning process, which happens around the September time
12 frame, for the following year, we extracted historical
13 information from the system as a starting point.
14 Basically take all hours done on inspections divided by
15 all units done on inspections, getting an approximate
16 hours per unit. And then we would review those numbers
17 as a starting point with the Operation team starting with
18 the front line supervisors to ensure that they are
19 comfortable with the numbers.

20 If they don't -- if they're not comfortable
21 with the numbers, we'll go ahead and they'll provide
22 adjustments or modifications. We'll take that feedback,
23 we'll adjust it, and then we ultimately get their
24 approval.

25 That goes up to another round of review, and it
26 results with the superintendents. After the

1 superintendent reviews those numbers and ultimately
2 approve or review and change, we'll take that feedback
3 and will review with the senior director to get their
4 approval.

5 Once we get final approval, we plan those
6 numbers in the system and then those are the targets.

7 Q. What's your role? In the process you just
8 described, what was your role?

9 A. Extracting historical information from the
10 system and then reviewing that with the supervisors,
11 superintendent, and then with the senior director;
12 although the senior director meetings, depending on which
13 year we were talking about, were led by whoever led the
14 T-line Business Finance team.

15 Q. Okay. And who was the Business team Finance
16 team at the time?

17 A. Which year are we discussing?

18 Q. When you were supporting T-line.

19 A. There's been various leads.

20 Q. Right. Name them, please.

21 A. Starting in 2014, Doug Durbin. I can't recall
22 the exact years, but it was Matt Heitzmann afterwards.
23 And then once Matt Heitzmann left, as part of Exhibit
24 1225, then I became the lead in 2017.

25 Q. Okay. So you were the guy in charge in 2017;
26 is that correct?

1 A. Starting in August of 2017.

2 Q. Okay. Can you please explain this concept of
3 extracting historical information.

4 A. Sure thing.

5 What do you mean by "concept"?

6 Q. What is it? What do you mean? What kind of
7 historical information?

8 A. Sure.

9 So we're pulling from SAP, which is PG&E's
10 system, our internal database, total amount of hours
11 spent on inspections, total amount of units done on
12 inspections. And that's how we're getting in hours per
13 units number. And that's the concept of how that works
14 is we take a query in Excel and then you're able to
15 choose these parameters, you're able to extract that data
16 into Excel. And that's how we get the numbers.

17 Q. So creating Excel spreadsheets, are those done
18 per line or for all lines?

19 A. That was for all lines. It's basically at the
20 order level.

21 Q. What do you mean the order level?

22 A. Order is basically represented a collection of
23 where units and hours are charged to, and that's what it
24 represents.

25 Q. Okay. So walk us through in a general year,
26 let's say 2015, how you would come up with the target

1 number for, say, the Caribou-Palermo line.

2 A. We never set a target for a specific line. If
3 we are going to walk through, can you remind me where
4 Caribou-Palermo was in regards to headquarters? Was
5 that --

6 Q. Feather River Canyon. Butte County.

7 A. In regards to Transmission Line headquarters,
8 would that be within Table Mountain?

9 Q. Yes.

10 A. Okay. So if we were in September of 2015, so
11 our planning processes vary, but around that time frame
12 we'd pull all of the orders within Table Mountain,
13 historical information that is, and then we would get an
14 estimated amount of all hours charged as well as all
15 units complete for Table Mountain. And then that would
16 lead to hours per unit amount. And then we would review
17 that number with the supervisor of Table Mountain to
18 ensure that they are comfortable with that number for the
19 next year's cycle of inspections.

20 Q. How far back do the historical records for the
21 hours or the units go?

22 A. I can't recall exactly how far back it went.

23 Q. How far back would you go in looking at
24 historical data?

25 A. Typically around three to five years.

26 Q. So you'd look at all the data for the last

1 three or five years, get an average time for how much
2 time they have to, how much time they had spent doing
3 patrols and inspections in previous years?

4 A. Yes.

5 Q. And then based upon that you'd give them a
6 target number for total number of hours for patrol and
7 inspections the following year?

8 A. We wouldn't give them that as a target. We'd
9 use that as a baseline for review with the supervisors
10 first. And typically it would start with various points,
11 like a year-to-date number, basically showing how many
12 months have we gone through the year, through maybe
13 August or September. That's what you guys are running at
14 right now. And then we'd review that with the supervisor
15 to see if they're comfortable with that number for the
16 next year to see if that's an attainable target.

17 If they feel that that is not a number that
18 they are, that's attainable, they'll get back to us and
19 we'll adjust as needed.

20 Q. So did you meet with the T-line supervisors
21 from, say, Table Mountain to go over these numbers?

22 A. What do you mean by meet? I person or --

23 Q. Just in general.

24 A. Yes.

25 Q. How did you meet with them?

26 A. We'd have reviews. Whether it's in person or

1 through a web conference. Video conference, that is.

2 Q. Okay. So basically video chat?

3 A. Yes.

4 Q. Or what is it? I can't remember the name of
5 the service the state uses, but Skype?

6 A. I don't recall the actual tool or application
7 used.

8 Q. So you would actually meet with the supervisors
9 of Table Mountain and go over the proposed target numbers
10 each fall?

11 A. Yes.

12 Q. And they had input as to the target, what the
13 target number was eventually going to be?

14 A. Yes.

15 Q. Did the supervisors from Table Mountain ever
16 express that their target numbers were too low?

17 A. I can't recall specifically.

18 Q. Do you recall specifically who the supervisors
19 were that you talked to?

20 A. Which year are we --

21 Q. Any year.

22 A. I can't recall who was the supervisor in Table
23 Mountain. Yeah, I'm sorry, I'm trying my best to
24 remember, but there were roughly 10 to 11 supervisors.

25 Q. Do you recall the name (WITNESS #12)?

26 A. Yes, I do.

1 Q. And what do you recall about (WITNESS #12)?

2 A. He, during my times, according to Transmission

3 Lines, he filled in as a superintendent at some point,

4 but he was also a supervisor.

5 Q. Okay. How about (EMPLOYEE #16)?

6 A. I recall the name; don't recall specifically

7 his role.

8 Q. (WITNESS #22)?

9 A. I remember (WITNESS #22).

10 Q. What do you recall about (WITNESS #22)?

11 A. He was a supervisor during my time at PG&E. I

12 believe he was a supervisor on the Tower side as well as

13 on the Maintenance side.

14 Q. Do you ever recall any of them expressing any

15 objections to the target numbers being set for Table

16 Mountain?

17 A. I can't recall any specific examples.

18 Q. So if you're using historical data to set

19 target numbers for the future, you're relying upon the

20 credibility of that historical data; correct?

21 A. As a starting point, yes.

22 Q. Okay. So if that historical data is garbage,

23 then ultimately where you end up is garbage; correct?

24 A. That would be the case.

25 Q. So let's, let's look at, say, 2014. Let's say

26 in 2014 the inspection, detailed inspection, for line X

1 on paper took 91 hours.

2 A. Okay.

3 Q. In reality, it took 121 hours. When you're
4 setting the schedule then for 2015, you're relying upon
5 that 91 hours; correct?

6 A. We never looked at line level detail in regards
7 to how many hours it took.

8 Q. Okay. So you're looking just at -- in a whole?

9 A. Yes.

10 Q. So if the T-men at, let's say, headquarters Y
11 were under reporting their hours spent on inspections and
12 patrols every year, then the numbers that you had would
13 be greatly minimized; correct?

14 A. If they were under reporting, then yes.

15 Q. Yes?

16 A. Then yes.

17 Q. So if it wasn't uncommon, like we talked about
18 on transmission line X, that the inspection actually took
19 121 hours, but 91 were reported, if you had another ten
20 lines that the same thing was being done on, your numbers
21 or what you ultimately came up with for a target for the
22 next year would be skewed extremely; right?

23 A. As a starting point, they would be, but that's
24 the reason why we review with the Operational team to get
25 their feedback to see if they're comfortable with those
26 numbers.

1 Q. Who is the Operational team?

2 A. The supervisors, the superintendents, as well
3 as the NNC director, if we're still speaking about that
4 time frame, also the senior director ultimately.

5 Q. You keep saying this is just a starting point.
6 So now walk us through. Let's say in 2014 you've got
7 the, all of the numbers, how many hours were spent doing
8 detailed ground patrols or detailed ground inspections
9 and aerial patrols in headquarters Y.

10 A. Okay.

11 Q. Now walk us through how you ultimately come to
12 the end of the target.

13 A. Sure thing.

14 So we'd review the historical information with
15 the supervisor at headquarter Y, get their feedback. If
16 they want to make any adjustments, they'll let us know.
17 We'll ultimately adjust that historical information to
18 account for their feedback. That leads to review with
19 the superintendents to get the review, their feedback,
20 and ultimately their approval. Then at the very end,
21 that rolls up now to a higher level meeting with the
22 senior director to ultimately get review and approval.
23 And that's where the targets are set.

24 Q. How often, in your experience doing this, did
25 the Operational team say that they weren't comfortable?

26 A. I can't recall how often.

1 Q. I mean, was it common for the Operational team
2 to say this isn't enough time?

3 A. What do you mean by common?

4 Q. I mean, every year you would go back to these
5 people and say, "Okay, here's what the numbers show, are
6 you comfortable with this number?" How often do they say
7 "No, we need more time"?

8 A. I don't recall how often. But in the event
9 that they needed more time, we would go ahead and put
10 that in as part of adjustments for the budget planning
11 process.

12 Q. Did you ever -- were you ever told by any of
13 the Operational team not only are we not comfortable but
14 last year we had to misreport time because we were so
15 over our time on certain lines?

16 A. I don't recall any examples of misrepresenting
17 of time, at least from the Operational team.

18

19 (Grand Jury Exhibit 577 introduced.)

20

21 Q. So we have up here in front of us Exhibit 577.
22 And this is a spreadsheet for Table Mountain headquarters
23 2014 patrols and inspections. Do you recognize this
24 document?

25 A. I do not recognize this document.

26 Q. Okay. What we're talking about here is this

1 column that says "work"; right?

2 A. Okay.

3 Q. And this number, 89 hours.

4 A. Okay.

5 Q. That's the target number that you were talking
6 about earlier; correct?

7 A. I don't recall this 89 hours, since I've never
8 seen this document before.

9 Q. Right. Now, we have been told that this
10 number, this 89 number, was produced by the Transmission
11 asset specialist based upon a formula that they were
12 provided by you.

13 A. For this specific example, looks like it's
14 2014, I did not plan the budget for 2014.

15 Q. Right. We are just talking in general right
16 now. We're talking about this target number. We're
17 talking about how we're coming to this number right here.

18 A. Okay.

19 Q. Not just in 2014, in any -- 2015, 2016, 2017.

20 A. Got it.

21 Q. So we're told that the Transmission asset
22 specialists get that number by applying a formula that
23 they were provided by you. Is that correct? Are we
24 understanding that correctly?

25 A. In regards to the formula, do you know what
26 formula they mentioned?

1 Q. Nope. They said that to figure out how much
2 time for each line, that they plugged in a formula with
3 numbers that were provided by you and it spat out a
4 number for that line for that year.

5 A. I'm not familiar with the specific formula that
6 they use.

7 Q. Okay. So what did you provide to the
8 Transmission asset specialists to allow them to determine
9 how many hours per transmission line?

10 A. They would get the target hours-per-unit number
11 that I was discussing earlier. That's part of budget
12 planning process.

13 Q. Okay. What is that number?

14 A. What do you mean by what it is? I can't recall
15 the exact number.

16 Q. Okay. But what does that number represent?

17 A. It represents the amount of hours it takes to
18 complete one unit.

19 Q. And what is one unit?

20 A. One unit is one asset or one structure.

21 Q. Okay. So a unit is a structure. And so you're
22 figuring out how much time should be spent by a
23 troubleman to patrol or inspect each unit?

24 A. Yes.

25 Q. And how are you doing that?

26 A. That's based on the budget planning process

1 where we set the targets, where we look at, as I
2 mentioned earlier, all hours spent doing inspections, how
3 many units are complete. You get an estimated amount of
4 how many hours does it take to complete one unit. That
5 goes through the whole review process, as I mentioned
6 earlier, the supervisors, superintendents, and senior
7 director. That's how we ultimately land on a target for
8 hours per unit.

9 Q. So you're actually setting the targets of how
10 much time per unit for patrol and inspection?

11 A. Not just me. It's a collaborative effort with
12 the Transmission Line's team as well.

13 Q. All right. So you tell the Transmission
14 specialist how much time can be spent on each structure
15 each year; right?

16 A. Yes.

17 Q. And that number changes year to year?

18 A. It could vary.

19 Q. And sometime it varies several times during the
20 year; correct?

21 A. The target shouldn't change throughout the
22 year.

23
24 (Grand Jury Exhibit 578 introduced.)

25
26 Q. Okay. Well, 577 that we have up here shows 89

1 hours for Caribou-Palermo. And then 578 shows 90.5. So
2 -- and both of these are for 2014. And I understand you
3 didn't have anything to do with this, this precedes you,
4 but why would those numbers change during the course of
5 the year?

6 A. I don't know why that number would change.

7 Q. Now, are you given, or were you given an
8 overall maintenance and inspection budget each year?

9 A. That would be part of the budget planning
10 cycle, yes.

11 Q. Okay.

12 A. You would have an overall number for budget.

13 Q. How would the budget fit into or affect the
14 target per unit, the target time per unit calculation?

15 A. So how the hours per unit target plays a role
16 in the overall budget; is that correct?

17 Q. Yes.

18 A. Sure.

19 So once we land on a target hours per unit,
20 that's ultimately multiplied by a fully burdened hourly
21 rate to get a unit cost. There's also, there could be
22 also other costs that play a role in the unit, which
23 could be materials, contracts, et cetera. But ultimately
24 what that formula, you get a unit cost, you multiply your
25 unit cost by total amount of units for the next year to
26 get a dollar amount with regard to the budget for the

1 following year.

2 Q. Okay. So budgets generally go up and down year
3 to year; correct?

4 A. Yeah, it can vary.

5 Q. And on the expense side, you have -- did you
6 have hard budget parameters?

7 A. What do you mean by "parameters"?

8 Q. I mean, here's your budget, you can't overspend
9 this?

10 A. I don't recall any examples of hard parameters
11 during my time supporting the program.

12 Q. Okay. And talk a little economics. General
13 economics. Costs, certain costs are part of doing
14 business and can't be avoided; correct?

15 A. Yes. There are certain face costs.

16 Q. Things like employee salaries; correct?

17 A. Yes.

18 Q. Cost of materials?

19 A. Yes.

20 Q. Other things that you can't control. Things
21 like inflation also affect the budget; correct?

22 A. Yes.

23 Q. So is it safe to say that the same amount of
24 money doesn't buy as much today as it did in 2014?

25 A. I'm not sure if it would be safe to say. It
26 would vary on what we're discussing here.

1 Q. Okay. So if the budget stays the same every
2 year, but the related costs continue to go up, then you
3 have less money for each one of the units; correct?

4 A. If that was the case, yes.

5
6 (Grand Jury Exhibit 618 introduced.)

7
8 Q. Okay. All right. So let's move on, this is
9 Exhibit 618, another one of the spreadsheets showing the
10 hours.

11 A. Okay.

12
13 (Grand Jury Exhibit 587C introduced.)

14
15 Q. Now we're moving on to 587C, I believe it is.
16 This is an email. And I don't expect that you -- that
17 you're not part of this, but what I want to know is can
18 you explain this chart down here?

19 A. So I didn't track this document, but I can help
20 explain if you'd like.

21 Q. Yes, what we want.

22 A. Okay.

23 Q. And you can stand up and walk over and use the
24 board as much as you want.

25 A. Sure thing.

26 So in regards to the table, on the far left,

1 that represents your MAT code, which is -- I forget what
2 the acronym stands for, but the description of that MAT
3 code is on the right. It shows annual ground patrols for
4 BFU and detailed ground inspection for BFZ.

5 Column third from the left, "HQ," represents
6 your headquarters. All headquarters are listed.

7 "2016 Units," from what I can see here,
8 represents the total volume of units for that MAT code
9 for that headquarter.

10 "UC Target" represents the unit cost target
11 that I mentioned earlier as part of budget planning
12 process.

13 "HRS tar" should stand for target.

14 Q. Okay. What's H-R-S?

15 A. Hours.

16 Q. Okay.

17 A. Should represent hours per unit target that was
18 basically approved in the budget planning process. Since
19 I didn't draft this email, I don't recall exactly where
20 these numbers came from, but they should be as part of
21 the budget planning process in regards to the targets.

22 Q. Okay. So down here, BFZ, we have detailed
23 ground inspections for the year, and this is done in May
24 of 2016. For Table Mountain, 9,919 units. So that means
25 they have 9,919 structures to be inspected, or detailed
26 ground inspection?

1 A. Yes, according to this table.

2 Q. And 30.5, does that mean they're supposed to
3 spend \$30.50 per structure?

4 A. Yes.

5 Q. And then .30 hours on target, which would be a
6 little bit less than one third, so little bit less than
7 20 minutes per structure?

8 A. Yes, according to the table.

9 Q. Okay. So those numbers they're coming up with
10 are reached based upon the historical general numbers for
11 all the previous inspections; correct?

12 A. Yes. And historical can vary between time
13 frames, depending on how the budget planning process
14 went.

15 Q. And the hours on target doesn't take into
16 account the individual attributes of a line; correct?

17 A. What do you mean by taking into account the
18 individual attributes of a line?

19 Q. It doesn't differentiate between a line that's
20 running up in the mountains and a line that's running
21 right next to Highway 70 in the valley?

22 A. Yes. Essentially, it would be an average
23 across all the lines within that headquarters.

24

25 (Grand Jury Exhibit 1226 introduced.)

26

1 Q. All right. Let's move on to 1226. We've been
2 talking about unit costs. You have in front of you
3 what's marked as 1226. First off, can you tell me if you
4 recognize 1226?

5 A. I vaguely remember the, this specific email,
6 but I do recall the format here and the report.

7 Q. Okay. What is 1226?

8 A. 1226 is a monthly email sent out to the
9 Transmission Line's team in regards to unit costs
10 performance.

11 Q. Okay. Unit cost is how much it costs to do any
12 single job; correct?

13 A. Can you clarify what you mean by a job?

14 Q. Inspect a tower, fix a tower?

15 A. Yes.

16 Q. All right. So walk us through this email and
17 how to, how to read this and similar emails.

18 A. Sure thing.

19 Starting with the top, in the summary, it's
20 basically a high-level description of how we're
21 financially performing in regards to unit costs, actual
22 performance versus unit costs target performance.

23 As we can see here in the specific example for
24 September 6th, 2016, YTD represents year to date through
25 August. It looks like we're achieving an unfavorable
26 financial impact of 1.2 million. Looks like that's

1 mainly driven by actually preventive maintenance, which
2 is the Expense Repair Budget. You'll notice that patrols
3 and inspections actually performed favorably, came under
4 budget by \$.11 million. And expense repairs performed
5 above budget at \$1.3 million.

6 Areas below that are just showing areas of
7 focus showing which unit cost has trended high over the
8 past month, which unit costs have trended lower over the
9 past month. And various notes around the actual report
10 itself on the bottom of the email.

11 Q. All right. So, first off, who is this email
12 going out to?

13 A. It is -- well, starting off, Eric Back, who is
14 the senior director of Transmission Line at that point in
15 time. And also the superintendent, Robert Cupp. Trevor
16 Hammon I believe was a superintendent at that point in
17 time as well. Also goes out, as you can see, on the
18 two-line email to the M&C North Leadership Team, M&C
19 South Leadership Team, and M&C Central Leadership Team.

20 Q. Okay. What is the M&C North and South
21 Leadership Team? What does that mean?

22 A. That means the Maintenance and Construction
23 North Leadership Team. I don't recall everyone who was
24 in that specific email box, but involves or includes the
25 superintendent, the front line supervisors, and there
26 could have been various other individuals.

1 Q. How often did you send out these emails?
2 A. This was on a monthly basis.
3 Q. All right. So every month you're sending these
4 emails out to the, to the Transmission Line supervisors,
5 charting how they did this past month financially?
6 A. Yes.
7 Q. So let's walk through this. What does it mean
8 to have an unfavorable financial impact?
9 A. That means if we take all units done through
10 August of that year times the difference between their
11 unit cost, actual number versus their unit cost target
12 number, that means, with that equation, we are performing
13 1.2 million above unit cost.
14 Q. So to put that in layman's terms, does that
15 mean we're over budget?
16 A. For these two categories of work, yes.
17 Q. All right. And we go down here, P&I, does that
18 stand for patrol and inspection?
19 A. Yes.
20 Q. What is a favorable financial impact?
21 A. That means they are performing below unit cost
22 target for however many units they completed at that
23 point in time.
24 Q. So patrol and inspection is under budget
25 basically; correct?
26 A. I can't recall the exact number, but if you

1 looked at just unit cost performance, yes.

2 Q. Now, we go down in this little area here, areas
3 of focus, and we have trending higher with this red
4 arrow?

5 A. Yes.

6 Q. And, actually, I should back up. This email
7 and the other one similar to it, monthly emails, are in
8 color with green and red and blue; right?

9 A. Let me look through the other ones. They
10 should be.

11 Q. Okay. I'm guessing green means good; red means
12 bad?

13 A. If we're looking at financial performance,
14 above, above budget or below budget, then yes.

15 Q. Okay. So here this month we have the red arrow
16 going up, trending higher, and we have ICI, BFX, and ICW.

17 So BFX says annual air patrols unit cost
18 increase of 8 percent from last month, \$10 per unit to
19 \$10 -- looks like -- 70 cents, 10.7 per unit. Am I
20 reading that correctly?

21 A. You are.

22 Q. So what does that mean?

23 A. That means that we're looking at unit costs
24 based on the report that was sent out a month before,
25 which is in August, comparing that to the report now in
26 September. We notice about an 8 percent increase in unit

1 cost.

2 Q. Okay. And then trending lower, this month we
3 have green arrow going down. BFX and ICD both are going
4 down; correct?

5 A. Yes.

6 Q. So what are these reports, these monthly
7 reports, that you're sending out to the T-line
8 supervisors used for?

9 A. It would be used for providing unit cost
10 information, just how they're performing compared to
11 target. Supervisors would look into their area to look
12 at specific jobs at a lower-level detail.

13 Q. Do you know if supervisors were rewarded for
14 coming in under budget?

15 A. I don't know.

16 Q. Or punished for coming in over budget?

17 A. I don't know.

18

19 (Grand Jury Exhibit 1227 introduced.)

20

21 Q. All right. So let's move on to 1227. And I'll
22 ask you -- look at 1227 and tell us what 1227 is.

23 A. Okay. So this is a similar layout to the
24 Exhibit 1226. Essentially, this is a report sent out on
25 December 5th, 2016. Looks like it compares performance
26 through November of the year, and looks like there was an

1 unfavorable financial impact of about \$3 million during
2 this year. Mainly on the Expense Repair side, which is
3 labeled under "preventive maintenance."

4 Q. Okay. Do you know what ICW means?

5 A. This was a MAT code. I believe that was around
6 expense repairs on wood structures.

7 Q. So -- and then here in patrol and inspection
8 for the year, you're under budget by .1 -- I'm guessing
9 "M" means million?

10 A. Yes.

11 Q. So basically a hundred thousand dollars?

12 A. Yes.

13 Q. So what happens when one side of the equation,
14 or one, one MAT code or area goes over its budget to the
15 other sides, the other areas?

16 A. Ultimately, if we see a certain area over
17 budget, we'll look at ways to reallocate maybe other
18 areas under running. If we can't do that, it goes
19 ultimately to a higher level, looking at various
20 organizations that may be under running.

21 Q. When you're talking about reallocating, taking
22 from Peter to pay Paul; correct?

23 A. Yes.

24 Q. So if one area is overrunning its budget, then
25 you've got to go get that money from somewhere else?

26 A. Yes.

1 Q. All right. So here, this preventive
2 maintenance is way overrunning the budget, so to pay for
3 that in the expense side, you're going to have to take
4 money from other places, for instance, patrol and
5 inspection budgets?

6 A. I don't recall if it was ever taken from the
7 patrol, patrol and inspection budget.

8
9 (Grand Jury Exhibit 1228 introduced.)

10
11 Q. All right. Let's move on. 1228.

12 A. Okay.

13 Q. Tell us, what is 1228?

14 A. Sure. Same run through as before. Looks like
15 this was sent out March 3rd of 2017. Showing performance
16 through February. Looks like net financial impact was
17 essentially zero; roughly, rounding to the closest
18 number, \$0.0 million.

19 Looks like P&I was pretty much on target, net
20 financial impact \$0.0 million as well.

21 Preventive maintenance, judging by the red,
22 rounded to \$0.0 million, slightly unfavorable.

23 Q. All right. Now, areas of focus here where we
24 have trending lower, go down to BFZ, what's the detailed
25 ground inspection.

26 A. Okay.

1 Q. Unit cost decrease of 63 percent from last
2 month; from \$57 per unit to \$22 per unit?

3 A. Okay.

4 Q. What does that mean?

5 A. That means they improved unit cost combining
6 January and February data. It improved from the January
7 performance, just looking at January data.

8 Q. Okay. How do you improve your unit cost for
9 doing a detailed ground inspection?

10 A. I am not in a position to answer that in
11 regards to how you improve that.

12 Q. What do you look at to see that, that this is
13 happening? How can you tell that there's been a unit
14 decrease of 63 percent on detailed ground inspections?

15 A. Yeah. So we extract that information from SAP
16 as well. It's a query that we pull data from. Look at
17 all of the orders that had costs charged to during that
18 time frame, as well as looking at all the units on that
19 specific order. That way we can get an approximate unit
20 cost dividing your total cost on that order divided by
21 total units complete on that order.

22

23 (Grand Jury Exhibit 1229 introduced.)

24

25 Q. Okay. Let's move on to 1229. And what is
26 1229?

1 A. Okay. Running through the same example, looks
2 like this was sent out an April 5th, 2017, showing data
3 through March. Looks like at this point in time
4 favorable financial impact of .3 million, favorable
5 financial impact on P&I of .2 million, favorable
6 financial impact on preventative maintenance at .1
7 million.

8 Q. All right. So now we're trending lower. We
9 have BFX, annual air patrols, unit cost decrease of 42
10 percent from last month; \$14.5 per unit to \$8.4 per unit;
11 correct?

12 A. Correct.

13 Q. Again, do you have any idea how you decrease
14 the unit cost for an aerial patrol?

15 A. I'm not in a position to answer how you
16 decrease unit cost for aerial patrols, but if we're
17 talking from a systemic standpoint from pulling this
18 information, it would basically be the amount of cost on
19 those orders divided by unit. And looks like that ratio
20 improved, essentially leading to improved unit cost.

21

22 (Grand Jury Exhibit 1230 introduced.)

23

24 Q. Okay. 1230.

25 A. Okay.

26 Q. Can you explain 1230 to us.

1 A. Sure thing.

2 This was sent out on May 3rd, 2017. Looks like
3 this is performance through April. Favorable financial
4 impact of \$.2 million.

5 On the P&I side, favorable financial impact of
6 \$.1 million.

7 Favorable financial impact of .1 million on
8 preventive maintenance as well.

9 Q. Okay. And then trending higher, now we have
10 the BFX again, the annual air patrols, increase 22
11 percent, from 8.4 to 10.3?

12 A. Correct.

13 Q. All right. So this month they've almost
14 bounced back to where they were in April -- in March;
15 correct?

16 A. It's trending towards that direction based on
17 what I'm seeing.

18 Q. Okay. Was it common to see those unit costs
19 and inspections vary like that from month to month?

20 A. I don't recall those common, but we would see
21 fluctuation in cost every month.

22

23 (Grand Jury Exhibit 1231 introduced.)

24

25 Q. Okay. All right. 1231.

26 A. Okay.

1 Q. Did I get those out of order? We went -- now,
2 this is '18, I'm sorry. I saw April.

3 A. Gotcha.

4 Q. Tell us what you're looking at.

5 A. Sure thing.

6 Sent out April 4th, 2018, showing financial
7 performance through year-to-date March. We're achieving
8 a favorable financial impact of about 251k.

9 Looks like the formating is a little different
10 on this one, but looks like P&I was experiencing
11 unfavorable financial impact of about \$7,000.

12 On the preventive maintenance side, favorable
13 financial impact of roughly \$257,000.

14 Q. So in patrol and inspection they're over their
15 budget by \$700,000 or 7,000?

16 A. Seven thousand.

17 Q. All right. Seven thousand.

18 Okay. We go to areas of focus. And then BFZ,
19 detailed ground inspections, unit cost decrease. Unit
20 cost decrease of 14 percent from last month; \$28 a unit
21 to \$24 a unit. Reading that correctly?

22 A. Correct.

23 Q. So costs are going down for detailed ground
24 inspections?

25 A. Yes.

26 Q. All right.

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(Grand Jury Exhibit 1232 introduced.)

Q. All right. So this is 1232. Look at 1232.
We're going to start with the email on the bottom. We
always read the emails here. Emails are backwards.

A. Okay.

Q. So the second half of the page, basically front
page, starts with an email from you. If you'll let us
know what we're looking at here.

A. Yes. In regards to the email that I sent out
at the bottom of the page, looks like this was sent out
October 6th of 2015. Looks like that is a link to the
unit cost report that was sent out to the Transmission
Line Leadership team.

Q. Okay. And that would be the reports like we
were just looking at or --

A. It should be very similar. Looks like this is
in 2015, so could have been a different iteration of that
report.

Q. All right. Above that, who is John Parks?

A. At that point in time, he was the senior
director of Transmission Lines. Also noted in the
signature of the email.

Q. Right. And he says, "T-line supervisors, thank
you for your continued focus on your unit costs. Your

1 efforts have yielded about \$1.5 million year-to-date in
2 expense savings while all along working safely. Please
3 pass on thanks to the crews and troublemen."

4 Am I reading that correctly?

5 A. You are reading it correctly.

6 Q. Then above that there's an email from (WITNESS
7 #12). You said earlier (WITNESS #12) is a T-line
8 supervisor or superintendent?

9 A. Yes.

10 Q. So he says, "You appear to be doing a good job.
11 Thank you for all your efforts."

12 Correct?

13 A. Yes.

14 Q. So you send out these monthly emails to the
15 supervisors, tracking how they did this week, this month.
16 Is it common for -- when they're saving money, they're
17 under budget, that's a good thing; right?

18 A. In regards to financial performance? Yes.

19 Q. In regards to everything.

20 A. In regards to financial performance, we're
21 under, typically that would be a good thing. But it also
22 depends on other areas within the budget as well.

23 Q. Okay. All right. This would probably be a
24 good time to take a break.

25 GRAND JURY FOREPERSON: Okay.

26 MR. NOEL: We've been going for almost an hour

1 and a half.

2 GRAND JURY FOREPERSON: Fifteen-minute break.

3 Admonition?

4 MR. NOEL: Yep, admonition.

5 GRAND JURY FOREPERSON: Mr. Ma?

6 THE WITNESS: Yes.

7 GRAND JURY FOREPERSON: You are admonished not

8 to discuss or disclose at any time outside of this jury

9 room the questions that have been asked of you or your

10 answers until authorized by the Grand Jury or the Court.

11 A violation of these instructions on your part may be a

12 basis for a charge against you of contempt of court.

13 This does not preclude you from discussing your legal

14 rights with your own attorney.

15 Mr. Ma, what I have just said is a warning not

16 to discuss this case with anyone except the Court, your

17 lawyer, or the district attorney.

18 THE WITNESS: Okay.

19 GRAND JURY FOREPERSON: Do you have any

20 questions?

21 THE WITNESS: No questions.

22 GRAND JURY FOREPERSON: Thank you.

23 THE WITNESS: Thank you.

24 MR. NOEL: Take a break.

25 (Break taken.)

26 [PROCEEDINGS OMITTED.]

1 GRAND JURY FOREPERSON: Everyone's back, and
2 all members of the Grand Jury are present. We shall
3 proceed.

4 Mr. Ma, I'd like to remind you that you're
5 still under oath.

6 THE WITNESS: Okay.

7 Q. (By MR. NOEL) Before we get back, one of the
8 questions I neglected to ask you earlier, I had asked you
9 about if other people's compensation was tied to how well
10 they performed. How about your compensation? Was your
11 compensation ever tied to the budget and how well the
12 T-lines performed or did not perform?

13 A. I don't know. It was one of our goals, but I
14 don't know if that was directly tied to my compensation.

15 Q. So you don't know if you got bonuses for good
16 performance?

17 A. For overall performance. Not in regards to
18 budget. That -- depending on how well you performed each
19 year, there's a year-end evaluation that dictates a bonus
20 percentage.

21 Q. And you, just to confirm, make sure we got this
22 clear, you don't work for PG&E anymore; correct?

23 A. Correct.

24 Q. When you left PG&E did you have to sign a
25 nondisclosure agreement?

26 A. I don't recall.

1 Q. Did you have to sign anything saying that you
2 would not cooperate with any investigations or speak ill
3 of PG&E?

4 A. I don't recall.

5 Q. And you left after the Camp Fire; correct?

6 A. Yes.

7 Q. At any time did you have to sign for PG&E a
8 nondisclosure agreement or anything that limited your
9 ability to talk about the company?

10 A. I don't recall.

11 Q. Now, we talked a little bit about historical
12 data. You said you pulled the historical data to make
13 determinations for the targets. And you said that the
14 prior three to five years. How did you decide whether to
15 use three years or to go all the way to five years?

16 A. We would just pull all the historical
17 information as a reference point. In case we ever wanted
18 to use a certain time frame, we would start as a basis
19 with the year-to-date performance, which is basically
20 whatever year it is -- or whatever month we're in.
21 September, say, for example, we'd use year-to-date August
22 performance as a starting point. And we'd have
23 historical information before that year as a reference
24 point if we ever needed to utilize that.

25 Q. Right. If you're doing the, say, the '16
26 budget, you're going to be starting in September of '15;

1 correct?

2 A. Yes. That simple.

3 Q. So your base level, you're going to be looking
4 at the year-to-date numbers as of August?

5 A. Yes.

6 Q. And part of your job, you compiled those
7 year-to-date numbers on a monthly basis; correct?

8 A. Yes.

9 Q. And then you sent them all out to all of the
10 T-line supervisors, superintendents, and above, to track
11 budgetary performance to that point, or for that month?

12 A. Yes.

13 Q. And why did you leave PG&E?

14 A. I left because I was given an opportunity to
15 work for a different company that would help me out with
16 my own personal career development and growth.

17

18 (Grand Jury Exhibit 1233 introduced.)

19

20 Q. Okay. All right. So now I want to go back.
21 We left off, we were at 1233. And I'm not going to ask
22 you if you recognize this because you're not involved in
23 this, but what I want to know is the terms on 1233.

24 "YTD," year-to-date?

25 A. Okay.

26 Q. All right. You're familiar with all these

1 terms?

2 A. With most of them.

3 Q. Okay. Which ones are you not familiar with?

4 A. Scanning through the list, I don't recall

5 everything within ICQ or ICS or ICW.

6 Q. And those would be -- steel structure

7 preventative maintenance for the towers is ICQ, and ICS

8 is steel structure preventative maintenance for the line

9 itself, the T-line; correct?

10 A. Based on the description we're seeing, yes.

11 Q. Then we talked earlier about what was ICW.

12 This means the maintain wood structures?

13 A. Yes.

14 Q. I want to bring the actual emails itself.

15 A. Okay.

16 Q. We'll have page 2 of the email and a large

17 chart. I'll ask you if you recognize that chart or what

18 that chart is.

19 A. I vaguely recognize this. It looks like it's

20 showing unit cost performance by month, by region, MAT

21 code, and headquarter.

22 Q. Okay. So can you explain to us how to read

23 this chart? And, like I said, feel free to get up and

24 use the board.

25 A. Sure thing.

26 So the far left, that grouping is central and

1 north, which represents the region.

2 Right next to that you see MAT, which is your
3 maintenance -- I forget, forgot what that stands for. I
4 think it's maintenance activity type of -- essentially
5 you see the description for that in the third column from
6 the left.

7 Annual air patrols associated with BFX, and
8 detailed ground inspection associated with BFZ.

9 Column next to that on the right, "HQ"
10 represents headquarters. See all the headquarters listed
11 down.

12 Then across these columns, January, February,
13 March, April, May, that shows your monthly unit cost
14 performance associated to each of these groupings.

15 Q. All right. So let's see if we can go down.
16 And there we have the north and Table Mountain. So under
17 BFU, annual ground patrols, for Table Mountain, we have
18 nothing in the right-hand columns; correct?

19 A. Correct.

20 Q. So what does that mean?

21 A. That can mean that there might not have been
22 unit complete. It could mean other things. Jobs were
23 scheduled later on in the year. Basically what it
24 indicates with zero showing up is either you have no
25 units or you have no costs hitting BFU for Table
26 Mountain.

1 Q. Okay. So, now going through the north and the
2 BFU column, we show 122 -- in January, 122.0 for Concord;
3 19.3 for Metcalf; then we have nothing for Eureka,
4 Lakeville, and Table Mountain. Am I reading that
5 correctly?

6 A. Yes.

7 Q. But then in the shaded column, it says -- BFU
8 total, it says 55.1. Explain to us how that comes about.

9 A. That would be a weighted average between the
10 Concord numbers and the Metcalf numbers.

11 Q. What do you mean a "weighted average"?

12 A. So we take all the costs in BFU for these
13 headquarters and divide all the units for all these
14 headquarters to get the 55.1.

15 Q. Okay. Well, 122 and 19 would be 141; correct?

16 A. I'm not sure how you get to the 141 you
17 mentioned.

18 Q. Well, you get 122 plus 19 would be 141?

19 A. That's if you add it, yes.

20 Q. 141.3. So 141.3 divided by 5 doesn't equal
21 55.1. So how, how are you coming up with this figure?
22 What does it mean to be a weighted average?

23 A. Where did you get the 5 from?

24 Q. Well, there's five columns. One, two, three,
25 four, five. Concord, Eureka, Lakeville, Metcalf, and
26 Table Mountain. And you said this 55.1 represents a

1 weighted average.

2 A. Yes. So what's not shown here in this table is
3 the amount of units complete and the costs associated to
4 these units. This is a unit cost chart showing your
5 dollars spent divided by units complete. So you don't
6 get the full picture from just looking at this.

7 Q. So this means for \$55.1, so \$55 and 10 cents,
8 per unit for annual ground patrols in January; correct?

9 A. Yes. For all of those headquarters.

10 Q. Okay. Now, we go to air patrols. And Concord,
11 Lakeville, Metcalf, Sacramento, Table Mountain. They all
12 are checking in here, everybody but Eureka. So that's
13 \$67, that's the cost per unit air patrols that month --

14 A. Yes.

15 Q. -- overall?

16 A. For those headquarters, yes.

17 Q. For the northern headquarters.

18 And for Table Mountain we see 108.8 in January.
19 And then it goes down to 6. Then it goes down -- it goes
20 up to 28. Then it goes down to 16.1. Then it continues
21 down to 8.5. And we see the same in the totals: 67,
22 12.1, 18.3, 20.8, 15.7. Why are all those vacillating so
23 wildly?

24 A. I don't know why they're vacillating so wildly.

25 Q. Is that common?

26 A. We would see unit costs fluctuate over per

1 month.

2 Q. Okay. So now the next chart on page 2, can you
3 explain to us this chart.

4 A. Sure.

5 Basically this chart is showing your
6 headquarters for your region on the far left. Looks like
7 in the first row you have your actual units complete.
8 And you have your actual dollars. Then you have unit
9 costs variance. And then target unit cost. And it shows
10 your actual unit cost on the bottom right here.

11 Then across the columns, from left to right,
12 you have your MAT codes.

13 Q. All right. So for Table Mountain there's
14 nothing under BFK, nothing under BFR, nothing under BFS,
15 nothing under BFT. And for BFU, which would be annual
16 ground patrols --

17 A. Yes.

18 Q. -- \$16. That's the cost per unit that an
19 annual ground patrol for Table Mountain headquarters
20 should be costing, \$16 per structure?

21 A. Based on this table, yes.

22 Q. And then BFX is annual air patrols. And it
23 should be \$15 per structure for an annual air patrol;
24 correct?

25 A. Correct. Based on what we're seeing in this
26 table.

1 Q. All right. Then BFZ, which is the detailed
2 ground inspection, \$51 per structure; is that correct?

3 A. Correct. Based on the table.

4 Q. And this is what you'd use to form your budget
5 for this, this headquarter?

6 A. I don't recall if this is what we used.

7 Q. Okay. And then down at the bottom we have the
8 actual costs. And so BFU, which is annual ground
9 patrols, looks like they're costing a whole lot more than
10 they're supposed to. \$143 per unit. Am I reading that
11 right?

12 A. You are.

13 Q. And it's supposed to cost \$16, so they're way
14 overspending. But it looks like in actual dollars they
15 only spent \$573?

16 A. Yes.

17 Q. All right. What does that unit cost variance
18 mean?

19 A. Based on what I'm seeing in this table, it
20 looks like it is taking the difference between your
21 target unit cost and your actual unit cost.

22 Q. Okay. So -- all right. So actual unit cost,
23 BFU, which is very, very slight, is way over budget, but
24 BFX, which is the annual air patrols, is actually a
25 dollar per unit under budget; correct?

26 A. Correct.

1 Q. And BFZ, which is the detailed ground
2 inspections, is \$5 under budget; correct?

3 A. Correct.

4 Q. Okay. And do you remember who Mary Hvistendahl
5 is?

6 A. Yes. She was a superintendent.

7 Q. Okay. And this is an email from 2014. "Your
8 HQ is way over --" and this is directed towards (WITNESS
9 #12) and (EMPLOYEE #16) -- "Your HQ is way over in BFU
10 unit costs. Only shows one month of them."

11 So is that true based upon the spread chart?

12 A. Let me take a look at the table and see.

13 Q. Yep.

14 A. Looks like the table might be cut off since I
15 don't see BFU Table Mountain unit cost. But I do see in
16 the bottom table, which is the one we just reviewed.

17 Q. Right.

18 A. And that one shows that it's over target unit
19 cost.

20 Q. All right. So -- and going back to how you're
21 involved in this one, all the way back to the beginning
22 it starts with an email from you; correct?

23 A. Correct.

24 Q. Year-to-date July performance. And then Robert
25 Cupp. Who did you say that was?

26 A. He was a superintendent at that time.

1 Q. And he's asking you to break out the north and
2 the south by HQ and total for each department for all the
3 unit costs; correct?

4 A. Correct.

5 Q. And you did so and sent it back to he and Mary
6 Hvistendahl?

7 A. Yes.

8 Q. So that's the chart that we've been looking at,
9 breaking down all those costs?

10 A. Correct. Correct.

11

12 (Grand Jury Exhibit 1234 introduced.)

13

14 Q. All right. Let's move on to Exhibit 1234.
15 1234.

16 A. Okay.

17 Q. Who is Jennifer Burrows?

18 A. She was the Transmission Line's work management
19 manager.

20 Q. All right. And who is Kelly Leal?

21 A. I don't recall that specific time frame that
22 she was on Jennifer's team.

23 Q. Who is Jake Meyers?

24 A. He was also on Jennifer's team, but I don't
25 recall his exact title.

26 Q. All right. This is an email and a response to

1 an email, the email that you sent on September 18th,
2 2017, to Eric Back and Jennifer Burrows. And remind us
3 who Eric Back is.

4 A. He is the senior director of Transmission
5 Lines, at least at that point.

6 Q. So tell us what you're, what you're doing in
7 this email.

8 A. So it looks like I was providing Eric and
9 Jennifer an update on the latest budget adjustments based
10 on feedback from Eric and Jennifer. This is a roll-up
11 summation of the changes that were going into the latest,
12 looks like S2 Ask numbers.

13 Q. That's why we're having you explain this.

14 Here you're involved -- this is September of
15 '17, and you are involved in putting together a budget
16 for T-line division for '18; is that correct?

17 A. Yes.

18 Q. All right. So explain this chart to us.

19 A. Sure. I can explain at least what I know.

20 Q. You put together that chart; right?

21 A. I did. I did.

22 Q. So you should know everything that's in that
23 chart.

24 A. I can't recall all the definitions of S1, S2
25 Guidance, Ask. I got those targets from a different
26 department. But essentially the table starts out Major

1 Work Category. Far left. These are the five rows listed
2 outside the -- that is how the budget was composed. So
3 like we talked about earlier with MAT codes, those MAT
4 codes go into certain major categories. This is a
5 hire-level roll-up of the budgeting.

6 Starting with BF, CH, DF, IB, and IC, there is
7 a description associated to each category as well next to
8 it.

9 And then there's various columns here that
10 shows target budget for 2018 based on different iteration
11 on targets we've received.

12 S1, S2 Guidance, ultimately S2 Ask.

13 Then a variance between basically your guidance
14 from CH versus your S2 Ask.

15 Q. So, just in general, can you define for us what
16 S1 is? What does it represent?

17 A. I can't define the process of S1.

18 Q. Just what it means.

19 A. That represents a target that was set in 2018,
20 targeted budget number for each major category.

21 Q. Targeted by who?

22 A. I can't recall who gave us the targets. It was
23 a different department than within the company.

24 Q. All right. So somebody else sat the budget for
25 Electric Transmission Distribution Patrol and Inspection
26 at 5,606, or is that a truncated number?

1 A. That is 5.6 million.

2 Q. All right. So the budget is 5.6 million.
3 Somebody has set that as the target for the budget?

4 A. Yes.

5 Q. What is S -- just in general, what is S2
6 Guidance?

7 A. It looks like S2 Guidance had changes from S1.
8 Based on what I recall during that process, they were
9 different iterations of prioritization led by different
10 departments. So that's why you can see the number is
11 different from S1. In regards to what change, I can't
12 recall what changed.

13 Q. Right. But just in general, what does S2
14 Guidance mean? It's a process that you go through every
15 single year, so there has to be some definition for what
16 S2 Guidance is.

17 A. That is a recommended target. I don't know the
18 whole process around S2 Guidance and how those numbers
19 were calculated.

20 Q. So, same question, S2 Ask?

21 A. Yes. So as soon as I received the targets for
22 S2 Guidance, we basically went back to the Transmission
23 Line's team with Eric and Jennifer listed in this email
24 to get their feedback in regards to those numbers and
25 take anything back and make those adjustments, which you
26 see here listed in S2 Ask. That's the reason why I sent

1 out that email back to Eric and Jennifer here.

2 Q. Okay. And then the final column, D, Gold Ask?

3 A. Looks like that is the variance between S2
4 Guidance and S2 Ask.

5 Q. Okay. So you're asking for \$187 million more,
6 or hundred 1.87 million more than what some unknown
7 person has set as your target for that year?

8 A. It would be \$187,000.

9 Q. A hundred eighty-seven thousand.

10 Okay. All right. And the number that you're
11 asking is what you're being told by, for lack of a better
12 term, the subject matter experts as to how much they need
13 to do the job correctly; correct?

14 A. Yes.

15

16 (Grand Jury Exhibit 1235 introduced.)

17

18 Q. All right. Now, moving on to 1235.

19 A. Okay.

20 Q. And can you explain to us the chart? This is
21 your email from Monday, October 26th, 2015, somebody
22 named Jefferson Heidelberger. And can you explain to us
23 this chart.

24 A. Okay. I don't recall exactly what this
25 analysis regarding, analysis of a file, but I know from a
26 high-level what I'm seeing here and explain the table.

1 Q. Right.

2 A. So just going over the table here, you'll
3 notice breaks down your headquarters in the far left,
4 shows your regions -- north, south.

5 Obviously short for "headquarters" right next
6 to it.

7 Head count. I can't recall exactly if those
8 were actual head count numbers or projected head count
9 numbers.

10 In the middle here you'll see FY, FTE billable
11 capacity. That's the estimated amount of total billable
12 hours for a Transmission Line maintenance employee.

13 Q. What does FY mean?

14 A. I believe that represents full year.

15 Q. What is FTE?

16 A. Full-time employee.

17 Q. Okay.

18 A. In 2012, 2013, 2014, these columns, based on
19 what I'm reading in the email, it looks like those are
20 average -- looks like those are 2012, 2013, 2014 hours
21 billable from T-line, T-man based on what's described in
22 the email.

23 Q. Okay. So, for instance, Table Mountain, 4
24 T-men, 5 on the crew; total billable hours, 1,725. And
25 is this year-to-date?

26 A. I don't know.

1 Q. But it shows 2012, 6,731; 2013, 5,355; 2014,
2 4,288. So am I correct in reading those numbers that the
3 billable hours that are being put in by the Table
4 Mountain crew are going down every year?

5 A. Based on what we're seeing, yes.

6 Q. And going down substantially?

7 A. Can I clarify what you mean by "substantially"?

8 Q. Big.

9 A. If we're looking at percentage change, I would
10 say yes.

11 Q. Okay.

12 GRAND JUROR #13: Marc, could you make the
13 chart a little bigger so we can see it, please.

14 Thank you.

15 Q. (By MR. NOEL) So looks like the billable hours
16 for Table Mountain are going down. And do you see any
17 other trends in here?

18 A. I do.

19 Q. What's that?

20 A. Other headquarters are actually increasing.
21 And then at the bottom, grand total area, you can see
22 that as an increasing as well.

23 Q. Okay. For instance, Fresno 2012 starts off
24 with 2,566. '13 goes up to 4,960. And '14, that's up to
25 6,279. So that's a pretty substantial increase in man
26 hours; correct?

1 A. Yes.

2 Q. And this is just the man, the billable hours
3 for the T-men and -- well, just for their T-men; correct?

4 A. Based on what's described in the email, yes.

5 Q. Okay. That's your email. That's what you say
6 in the email.

7 A. Yes.

8

9 (Grand Jury Exhibit 1236 introduced.)

10

11 Q. All right. Let's move on to 1236.

12 A. Okay.

13 Q. See No. 1236?

14 A. Yes.

15 Q. And this is an email, it's not really addressed
16 to you, but the question is talking about a training, and
17 it says, "Unit cost reporting review, Warren Ma."

18 So do you remember providing training on those,
19 on that topic?

20 A. I vaguely recall.

21 Q. Was it common for you to go out and give
22 training to the actual crews?

23 A. Not the actual crews, but the supervisors at
24 times.

25 Q. And what -- explain for us the training that
26 you were giving to the supervisors.

1 A. It was primarily around how to navigate through
2 the unit cost report. It was on Excel, so a lot of
3 supervisors needed help navigating through that report to
4 see where their areas were and kind of how to read and
5 digest those reports.

6 Q. So you're talking about the monthly reports you
7 sent out tracking year-to-date spending?

8 A. Yes.

9 Q. Did you teach them how to be able to read it to
10 be able to identify how they're doing on a month-to-month
11 basis?

12 A. Yes.

13

14 (Grand Jury Exhibit 1237 introduced.)

15

16 Q. All right. Let's go on to 1237.

17 A. Okay.

18 Q. Do you recognize 1237?

19 A. I don't recognize the first email here from
20 Mary. I was not on that email.

21 Q. Then the second email is from you?

22 A. Yes.

23 Q. And then when you go back -- we've learned you
24 have to review these things from back to front --

25 A. Okay.

26 Q. -- chronological.

1 So these things start off, this exhibit starts
2 off with an email on August 5th, 2014, from you to a
3 whole bunch of people. "Year-to-date July performance by
4 HQ"; correct?

5 A. Correct.

6 Q. And then, again, Robert Cupp is asking you to
7 break it down by headquarters and by region?

8 A. Yes.

9 Q. And, again, we've already gone through this,
10 this is a similar chart to the one we went through
11 earlier; is that correct?

12 A. Correct.

13 Q. And you say that there's columns missing on
14 these charts; correct?

15 A. There could be. I don't know if they were cut
16 off or not, but looks like since this is a year-to-date
17 July performance email, there should be June and July
18 there as well.

19 Q. Okay. And then there's your email. You're
20 sending out this chart to everybody. What does it mean
21 when you say, "I've modified the Unit Cost Report to
22 split the data between north and south"?

23 A. That is based on Robert's request in the prior
24 email saying, "Hey, Warren, can you break out the north
25 and south by HQ and total?"

26 Yeah, basically what he mentioned earlier.

1 Q. And you say, "Please feel free to let me know
2 if you'd like to make any additional modifications."

3 What type of modifications could be made?

4 A. I don't know. Depending on what Robert and
5 Eric were thinking, I would take that feedback into
6 account and make any modifications as requested if it
7 made sense.

8

9 (Grand Jury Exhibit 1238 introduced.)

10

11 Q. Let's move on. This is -- let's move on to
12 1238.

13 A. Okay.

14 Q. And can you explain to us what we're looking
15 at, 1238.

16 A. Sure.

17 Looks like this is an email from me to the
18 T-line Leadership team basically going over high-level
19 how the T-line performed year-to-date through August in
20 this case.

21 Q. It says, "Day 2 summary of financial results."
22 What does that mean?

23 A. Day 2 is a day when we typically get all of our
24 cost information for the prior month. And that's -- if
25 you go back in this email, you'll notice there at the
26 very beginning, if we're going in order here,

1 chronological order that is, there should be an email
2 from our director that kicks off this chain. And, yes,
3 there is.

4 Q. There's 39. So this is a long email chain;
5 right?

6 A. Yeah. There's a lot of tables in here. It's a
7 piggyback off several emails.

8 Q. Okay. So let's start walking through some of
9 these tables and what they mean. I'm going to actually
10 have to lower this down a little bit so we can actually
11 see the context.

12 So we're starting off, we're on page 8 of 9 in
13 this email with some tables marked as "30-day Forecast."

14 Can you explain to us what that means.

15 A. Thirty-day forecast represents comparison of
16 the August spend versus forecast to spend. And you'll
17 see the variance to forecast versus actual spent.

18 Q. All right. So in the expense budget, again,
19 red bad, green good, yellow neutral?

20 A. I wouldn't necessarily say it's good or bad,
21 but it's over if it's red; yellow if it's about the same;
22 and then, then red would be over.

23 Q. All right. So explain to us how to read that
24 expense chart for the month of August.

25 A. Sure.

26 Starting at the very far left, you'll see "LOB

1 Hierarchy." LOB represents Line of Business.

2 At the very top you'll notice Operations as a
3 whole, which includes all of the different organizations
4 under Operations. Starting again, Electric Distribution,
5 Electric Transmission, Emergency Preparedness and
6 Response, and Fleet Service.

7 On the column here, you'll see actual spend.

8 Then you'll see forecast right next to that,
9 which represents the forecast amount of spend to the
10 month.

11 Then you'll notice the variance between all
12 that.

13 And forecast on the far right.

14 Q. All right. Overall, for Electrical Operations
15 the forecast was \$72,262; in actual you spent \$79,907;
16 correct?

17 A. 72.3 million versus actual 79.9 million.

18 Q. Okay. On the distribution side, forecast was
19 24.1 million; correct?

20 A. Yes.

21 Q. And the actual spending to that point was 29.2
22 million?

23 A. Yes.

24 Q. Transmission forecast, 23 million; actual is 22
25 million?

26 A. Yes.

1 Q. And Electric Transmission actually is in the
2 green, \$792,000; is that correct?

3 A. That is correct.

4 Q. All right.

5 A. Actually, let me clarify what you meant by
6 green, red, yellow here in this case.

7 Q. Okay.

8 A. I don't remember the exact percentages, but if
9 it's green, that means it's within a certain percentage.
10 It's red -- or yellow, that means it's within a certain
11 percentage beyond green. If it's red, that means it's
12 beyond a certain percentage beyond that.

13 Q. And the bottom, it says, "Electric
14 Distribution, 5.1 million." That's how far over its
15 forecast is. "Driven primarily by distribution support,
16 1.4 million, and small variance." Do you understand what
17 that means?

18 A. I don't besides Electric Distribution being
19 over by 5.1 mill.

20 Q. Okay. Now, up above here on page 7 we have
21 another chart, MTD, year-to-date results, expense. Can
22 you explain that to us.

23 A. Sure thing.

24 Based on what I'm seeing here, looks like far
25 left we're seeing again Electric Operation, then Electric
26 Distribution, Transmission, et cetera.

1 Across the columns to the right of that,
2 up-to-date performance here in August showing actual
3 budget and variance. Actually, looks like this is
4 showing variance to the original budget instead of
5 forecast. I just want to keep emphasis from what we saw
6 earlier.

7 Then YTD on the far right here shows
8 year-to-date actual performance, year-to-date budget, and
9 then year-to-date variance.

10 Q. Okay. So, again, overall Electric Operations,
11 year-to-date in the red, \$12.8 million; is that correct?

12 A. Correct.

13 Q. Transmission, in the green, 10. That
14 represents, what, \$10 million?

15 A. Yes.

16 Q. And the variance to budgeted, all these things
17 are what are causing, what, the overruns in certain
18 areas?

19 A. Based on what I'm reading here, it looks like
20 those are high-level call-outs.

21 Q. What's a "call-out"?

22 A. An explanation for why there's a variance in
23 the budget.

24 Q. All right. Now, next up we have a whole bunch
25 more charts.

26 And, let's see. All right. We want to focus

1 on the top one up there, "ED Expense." If you could
2 explain that chart to us.

3 A. Okay. Looks like ED Expense represents
4 Electric Distribution expense, part of T-O portion only.

5 On the far left, it shows budget level 3, which
6 is just, is a hierarchy of where these different
7 organizations sit. Level three is where Transmission
8 Operations sits. Then it shows the associated programs
9 that are under ED Expense on that second-to-left column.

10 Q. Okay.

11 A. Then you'll notice performance on the right.

12 Q. There's ET capital, there's TE expense. This
13 is on page 4. Can you explain to us this chart.

14 A. Sure.

15 It looks like all the budget level 3s are
16 listed in the far-left. Distribution Operation,
17 Electrical, Transmission Operation, et cetera.

18 Then the associated programs are on the right
19 next to it.

20 And then you'll notice the far right is those
21 August actual costs, August DET, which represents budget
22 and variance to the budget. Shows August forecast on the
23 far right.

24 Q. Again, it looks like this cuts off and doesn't
25 have the entire chart?

26 A. It appears to.

1 Q. Okay. And what does DET mean?

2 A. I don't know what it stands for, but that is

3 the budget that we set the year before the actual budget

4 year.

5 Q. Can you explain the hierarchies? You used the

6 term "hierarchy."

7 A. I can't fully explain the hierarchy.

8 Q. What does that term mean to you?

9 A. It means different groupings of organizations.

10 So, as you can see here, in budget level 3 you see

11 Transmission Operations. Hierarchy above that would be,

12 it could be Electric Operations. I don't know if that

13 was specifically the case. But it shows groupings

14 depending on the organization structure.

15 Q. And what were the range of numbers in the chart

16 here?

17 A. What do you mean by range?

18 Q. Range of hierarchy. I'm sorry, budget level 3,

19 is there a budget level 2, budget levels below this?

20 A. It starts budget level 1, but I don't know how

21 many budget levels it goes down to.

22 Q. What would be budget level 1?

23 A. I don't know what is in budget level 1. My

24 guess is it would be --

25 Q. Don't guess.

26 A. -- company level.

1 Q. How about budget level 2?

2 A. That would be, say, for example, Electric
3 Operation, Gas Operations, et cetera.

4 Q. Okay. Any idea what budget level 4 would be?

5 A. It would be one level lower than Transmission
6 Operations. So that would probably -- the Transmission
7 Lines transmission substations.

8 Q. Okay. And these numbers in here, thousands
9 ranging to, ranging down to hundreds, are these true
10 numbers or do they represent millions?

11 A. This would be in thousands.

12 Q. Thousands. So if it says 194, that would
13 actually be 194,000?

14 A. Yes.

15 Q. Thirteen would be 13,000, and so on; correct?

16 A. Correct.

17 Q. Do you know where on this chart patrol and
18 inspections would fall?

19 A. Yes. It would be within this Transmission
20 Lines group.

21 Q. Okay. So in this year, Transmission Lines is
22 actually under budget by \$66,000 at the time of this;
23 correct?

24 A. That would just be for August.

25 Q. Just for August. Okay. We can't see the
26 year-to-date because the chart cuts off; is that correct?

1 A. Yes.

2 Q. All right. Who is David Young?

3 A. At that point in time, he was my counterpart.
4 He supported I believe substation at that point. Just
5 another member of our Business Finance Team.

6 Q. All right. And then some more charts by you.
7 If you could explain these for us.

8 A. Sure.

9 This is essentially a breakdown of the
10 Transmission Line budget and actual costings for the
11 months.

12 So top table represents Transmission Line
13 capital, with all the associated major category
14 descriptions of major categories. You can see actually
15 spent for the month major categories.

16 DET, which is the budget for the, for those
17 categories.

18 Then PRM is the forecast that would be used for
19 that month for those categories.

20 Then on the far right, those are variance
21 columns, actual performance compared to DET, percentage
22 variance DET -- I'm sorry, actual PRM and percentage
23 variance.

24 Middle table represents expense.

25 Bottom table, looks like that's a different
26 type, capital portfolio and programs.

1 Q. When you use the term "portfolio," what do you
2 mean?

3 A. Essentially everything within the capital
4 budget.

5 Q. Okay. All right. Let's go back to this. And
6 I think our last one --

7 MS. DUPRE-TOKOS: On 1239 now.

8
9 (Grand Jury Exhibit 1239 introduced.)
10

11 Q. (By MR. NOEL) 1239.

12 Okay. Let's talk about 1239. If you could
13 explain to us what we're looking at here in 1239.

14 A. Sure.

15 I vaguely recall this meeting, but it looks
16 like Jake Meyer sent out this email to Eric, who was the
17 senior director of Transmission Lines at that point in
18 time. And it looks like, based on what I'm reading here,
19 Jake is exploring areas where expense costs could be
20 reduced. And that's listed in the 126 items in the
21 middle of the email.

22 Q. Right. So this is scheduling a meeting;
23 correct?

24 A. Yes.

25 Q. And the meeting is on, this is in August of
26 2016, and the meeting's for 2017 expense funding request;

1 correct?

2 A. Correct.

3 Q. And you're one of the required attendees for
4 this meeting; correct?

5 A. Yes.

6 Q. Now, specifically of interest is the line,
7 "This input is important given the expense reduction
8 pressures being pushed down on Transmission Operations
9 for 2017."

10 Correct?

11 A. Correct.

12 Q. So do you remember budget reduction pressure in
13 2017?

14 A. I don't recall specifically in 2017.

15 Q. Okay. But expense reduction would refer to the
16 expense budget; correct?

17 A. Yes.

18 Q. And the expense budget in Transmission
19 Operations would include patrol and inspections; correct?

20 A. Correct.

21 Q. Do you remember why there was pressure to
22 reduce the budget in the expense budget and Transmission
23 Operations?

24 A. I don't recall what the drivers were.

25 Q. And the term "drivers," is that the causes
26 or --

1 A. Yes.

2

3 (Grand Jury Exhibit 1240 introduced.)

4

5 Q. All right. And finally, 1240. Again, can you
6 tell us what 1240 is.

7 A. Sure.

8 Can you give me a moment to read through?

9 Q. Yes. Go ahead.

10 A. Yes. This looks like a similar exploratory
11 exercise from Jake Meyer. Looks like he's looking for
12 areas where, areas where for the year you can reduce the
13 expense budget.

14 Q. Okay. Let's back up a little bit. First, this
15 is a meeting invitation; correct?

16 A. It appears so, yes.

17 Q. And you're, on this one, one of the optional
18 attendees --

19 A. Yes.

20 Q. -- correct?

21 And the subject of this meeting, the discussion
22 is expense reduction opportunities. Am I reading that
23 right?

24 A. Correct.

25 Q. And it goes down and says, "Team, please join
26 me for a discussion around our patrol and inspection

1 cycles and standard due dates for our maintenance tags as
2 laid out in the *ETPM*. I'd like to explore these areas
3 for opportunities to reduce our operating expenses
4 without reducing public safety by refining and adjusting
5 the due dates and/or frequencies for this work."

6 Did I read it correctly?

7 A. Yes, you did.

8 Q. It says, "Area of opportunity number 1, patrol
9 and inspection frequencies. Idea, are there any
10 opportunities to reduce our patrol and inspection
11 frequencies without reducing public safety?"

12 Read that correctly?

13 A. Yes.

14 Q. So did you, in fact, make any changes or
15 reductions to the patrol and inspection frequencies?

16 A. I don't recall if I did.

17 Q. Okay. Do you remember attending these
18 meetings?

19 A. I don't recall.

20 Q. And, now, who are these other people that are
21 in this meeting that were invited to this meeting? Boris
22 Andino?

23 A. I remember Boris Andino was in the Asset
24 Management Department.

25 Q. Ron Nixon?

26 A. I don't recall who Ron Nixon was.

1 Q. Chuck Stinnett?

2 A. I don't recall his exact role.

3 Q. Mike Peterson?

4 A. I don't know Mike Peterson.

5 Q. Robert Cupp?

6 A. Superintendent.

7 Q. Jefferson Heidelberger?

8 A. I believe at that point in time he was the

9 T-line work manager manager.

10 Q. Mickey Willy?

11 A. Also a superintendent.

12 Q. (EMPLOYEE #11)?

13 A. Also a superintendent.

14 Q. Stacie Doyle?

15 A. I believe at that point she was asset

16 maintenance planner.

17 Q. Greg Gabbard?

18 A. He was either manager or director of Project

19 Delivery.

20 Q. Wayne Pouncey?

21 A. At that point, I believe he still might have

22 been a superintendent. I don't recall specifically.

23 Q. All right. So in early 2017 you're invited to

24 a meeting to look at ways to reduce patrol and inspection

25 frequencies, or to reduce the budget for patrol and

26 inspections; correct?

1 A. Yes. As part of those meetings, I would be
2 involved to basically make any changes, if needed.

3 Q. In terms of the language "expense reduction
4 opportunities" -- that's the term used by PG&E; correct?
5 Or by Jake Meyer?

6 A. Yes.

7 Q. So if you didn't actually reduce the patrol and
8 inspections frequencies, how could you reduce the patrol
9 and inspections budget, or how much they would cost?

10 A. Can you clarify what you mean by how can you
11 reduce the spent?

12 Q. Yeah. You know, frequency would mean how often
13 you do the inspections; correct?

14 A. Correct.

15 Q. If you can't reduce that, but you still want to
16 reduce the budget, how would you reduce the budget?

17 A. I don't know. I'm not in a position to answer
18 that question. I would have to refer to somebody from
19 the operational side.

20 Q. Well, you'd want to get down your unit costs;
21 correct?

22 A. If you were to reduce the budget, yes, your
23 cost would have to go down.

24 Q. So if you were, say, averaging \$10.2 per unit
25 for a patrol, the way to reduce your budget would be to
26 reduce that unit cost down to \$8; correct?

1 A. Yes. If you went down from 10.2 to 8, yes.

2 Q. And are you familiar with how you would reduce
3 the, those actual unit costs?

4 A. That would be based on if we received feedback
5 from the operational side, if they were to reduce their
6 hours per unit.

7 Q. And did you ever receive that?

8 A. I can't recall.

9 Q. Did you ever have any discussions with the
10 operations side as to how they can reduce their costs per
11 unit?

12 A. Not from me.

13 MR. NOEL: Anything else? I think that's all I
14 have with this witness. Do the members of the jury have
15 any questions?

16 I see heads shaking.

17 The jurors are allowed to ask questions,
18 follow-up questions, or ask anything they want. They do
19 so in writing by giving those to us, we review them, and
20 make a determination if they're --

21 (Counsel and Grand Jury Foreperson confer).

22 Q. (By MR. NOEL) All right. How did you
23 reconcile charges in SAP versus actual expenses so that
24 over- and under-reporting could be determined?

25 A. I was not able to reconcile that. That would
26 be done more the operational side.

1 Q. When discrepancies occurred, what procedures
2 were followed to address?

3 A. What kind of discrepancies?

4 GRAND JUROR #13: If there were discrepancies
5 between actuals what were in SAP and actuals of what
6 happened.

7 THE WITNESS: As in accruals in the month.
8 There could be days where accruals are posted. Accruals
9 are estimate for the contract cost for the month that
10 would essentially be up in the next month.

11 GRAND JUROR #13: I'm saying what was reported
12 by -- live in SAP, S-A-P, what was actuals as opposed
13 to --

14 THE WITNESS: Those could be corrected in the
15 following months in case there was any discrepancies. I
16 was not involved in that process, though.

17 Q. (By MR. NOEL) When unit costs between HQ
18 differed significantly, was this questioned?

19 A. Yes. If a superintendent or supervisor had
20 questions on that, there would be questions around what's
21 causing it.

22 Q. And who would be the ones questioned and what
23 would be done?

24 A. I think it would depend on what the questions
25 are.

26 Q. Was there a protocol established, an

1 established protocol to determine why the differences?

2 A. No established protocol.

3 Q. What is the process to readjust the hours given
4 if the supervisor disagrees with the original allotment?

5 A. As part of the budget planning?

6 Q. Yes.

7 A. If they disagree, we would go ahead and adjust
8 based on their suggestion or recommendation, and then
9 ultimately that would lead to review with the
10 superintendent to get their approval as well.

11 Q. Is terrain or access to the structures factored
12 in when providing the number of hours per unit?

13 A. That would depend on the supervisor reviewing
14 the information.

15 Q. You used the term "fully burdened" in regards
16 to calculating budget expenditures. What does that mean?

17 A. I am not an expert on the fully burdened rate,
18 but if I were to explain, it would include salary and
19 various other costs that are overheads on top of the
20 salary of the employee.

21 Q. In your analysis of assets, expenses, and
22 budgeting, were the specific age of any specific assets
23 brought to your attention?

24 A. Not to my attention, but I do recall other
25 teams potentially looking at that.

26 Q. Do you think having that information would be

1 helpful in allocating unit costs?

2 A. Depending on what the supervisor provides as
3 feedback, I think it could be helpful.

4 Q. As a finance analyst, would you say capital
5 expenditures have a direct or indirect relationship to
6 operational expenses?

7 A. I don't know.

8 Q. Who at PG&E utility was responsible for
9 approving capital expenditures?

10 A. That would go through various individuals.

11 Q. Who are they?

12 A. I can't recall the names, but it would go
13 through directors, senior directors, VPs.

14 Q. Dave Gabbard?

15 A. Dave Gabbard would be a person involved in
16 capital expenditures.

17 Q. Who would be the top person?

18 A. I don't know who the top person would be.

19 MS. DUPRE-TOKOS: Do you know the title?

20 THE WITNESS: I don't know the title.

21 Q. (By MR. NOEL) Who at PG&E Corporation was
22 responsible for capital expenditures?

23 A. I don't know.

24 Q. When exactly did you leave PG&E?

25 A. June 2019.

26 Q. Do you know the exact date you left, you last

1 spent working a full day at PG&E?

2 A. I don't recall the specific date, but it was
3 early June.

4 Q. Have you ever heard the phrase "accounting
5 legerdemain"?

6 A. No.

7 Q. You've never heard that phrase?

8 A. Accounting legerdemain?

9 Q. Legerdemain.

10 GRAND JUROR #4: Legerdemain; sleight of hands.

11 THE WITNESS: No.

12 Q. (By MR. NOEL) Why are PG&E employees cycling
13 through positions so frequently, as in you stated "at
14 that time" when asked about employee status?

15 A. I don't know what the drivers were for
16 turnover.

17 Q. PG&E, or you as an analyst, relies on the
18 historical data. Did PG&E consider global warming in
19 data analysis?

20 A. I don't know.

21 Q. Would it be correct to say that a project
22 involving repairing or replacing significant segments of
23 transmission aging infrastructure would be considered a
24 capital project?

25 A. It would depend on the job.

26 Q. Who within the Business Finance Division would

1 be responsible for approving aging infrastructure capital
2 projects?

3 A. I don't know if anyone in the Business Finance
4 would be approving capital projects.

5 Q. In attracting -- extracting historical data,
6 was the average age of any given asset considered in
7 setting inspection hour targets?

8 A. I don't know.

9 Q. If the feedback from Operational Team was way
10 off, varying from historical data by more than 20
11 percent, how would the decision for a target number be
12 made?

13 A. Supervisor would have to provide justification
14 for that change. And then ultimately that justification
15 would roll up through the superintendent.

16 MR. NOEL: Anything further?

17 GRAND JUROR #13: So I'm confused. And maybe
18 you can help explain this. If all your budgeting was out
19 of SAP, is that correct, then how would you go from
20 actuals in budgeting? Did you use actuals or did you use
21 what was entered in SAP in your budget?

22 THE WITNESS: Could you please clarify that, as
23 in you mentioned using actuals in budget; right?

24 GRAND JUROR #13: Budget versus actual. If SAP
25 only contained cost --

26 THE WITNESS: Yep.

1 GRAND JUROR #13: -- and that was what budgets
2 were based off of in the calculation, that is different
3 than what is in actuals of what was incurred in cost.

4 THE WITNESS: Yeah. Sure thing.

5 So we plan the budget for the current year in
6 the year prior.

7 GRAND JUROR #13: Uh-huh.

8 THE WITNESS: So we'll leverage historical
9 information, get feedback from other project managers and
10 program managers on their costs and forecast, and we roll
11 all that up into a system within SAP. And that plan is
12 called DET, which is uploaded into SAP. Then once we
13 head into the next year, we're able to track actual costs
14 that come in that year versus that plan or budget that's
15 put in the system. So that's how we can compare month
16 over month.

17 GRAND JUROR #13: Okay.

18 Q. (By MR. NOEL) So the final follow-up question,
19 who had a financial interest, other than the company, in
20 decreasing the expense budget?

21 A. I don't know.

22 Q. I mean, you're not aware of any bonus program
23 or anything for saving money in the expense budgets?

24 A. Not aware of any bonus programs.

25 Q. And you didn't, you weren't getting bonuses for
26 the expense budget coming in, or the expense coming in

1 under budget?

2 A. I don't recall.

3 MR. NOEL: All right.

4 GRAND JURY FOREPERSON: Mr. Ma?

5 THE WITNESS: Yes.

6 GRAND JURY FOREPERSON: I need to read the
7 admonishment.

8 You are admonished not to discuss or disclose
9 at any time outside of this jury room the questions that
10 have been asked of you or your answers until authorized
11 by this Grand Jury or the Court. A violation of these
12 instructions on your part may be the basis for a charge
13 against you of contempt of court. This does not preclude
14 you from discussing your legal rights with your own
15 attorney.

16 Mr. Wah, what I have just said is a warning not
17 to discuss this case with anyone except the Court, your
18 lawyer, or the district attorney.

19 THE WITNESS: Okay.

20 GRAND JURY FOREPERSON: Any questions?

21 THE WITNESS: No questions.

22 GRAND JURY FOREPERSON: Okay. Thank for your
23 time.

24 THE WITNESS: Thank you.

25 MR. NOEL: All right. You're done. Thank you.

26 [DISCUSSION OMITTED.]

1 GRAND JURY FOREPERSON: Ms. Mihretu, before you
2 have a seat, I need to swear you in.

3 THE WITNESS: Okay.

4 GRAND JURY FOREPERSON: Ms. Mihretu, please
5 raise your right hand.

6
7 FEVEN MIHRETU
8 having been called as a witness in
9 the matter now pending, having been first
10 duly sworn, testifies as follows:

11
12 THE WITNESS: Yes.

13 GRAND JURY FOREPERSON: Thank you. Have a
14 seat, please.

15
16 EXAMINATION

17
18 BY MR. NOEL

19 Q. All right. Now, could you state your full
20 name, spell your last name for the record.

21 A. Feven Mihretu, M-I-H-R-E-T-U.

22 Q. Ma'am, are you employed?

23 A. Employed with PG&E.

24 Q. Let's turn this microphone. You're very soft
25 spoken. Everybody has to be able to hear you, so it's --

26 A. Sorry.

1 Q. That's okay. Have you ever done this before?
2 A. No.
3 Q. So are you nervous?
4 A. Yes.
5 Q. We'll try and make this as easy as we can. All
6 these people are nice, smiling at you.
7 All right. Again, where are you employed?
8 A. Yes, at PG&E.
9 Q. And how long have you been with PG&E?
10 A. Since 2008.
11 Q. What do you do for PG&E?
12 A. I'm an engineer.
13 Q. What kind of engineer?
14 A. Electrical engineer.
15 Q. What is an electrical engineer?
16 A. What is an electrical engineer --
17 Q. Yeah.
18 A. -- at PG&E?
19 Q. No, just in general what's an electrical
20 engineer?
21 A. It depends what we do.
22 (Court reporter interrupts proceeding.)
23 Q. Okay. All right. Did you go to school to be
24 an electrical engineer?
25 A. Yes, sir.
26 Q. Where did you go to school?

1 A. Cal Poly, San Luis Obispo.

2 Q. What year did you go to Cal Poly?

3 A. I graduated in 2008.

4 Q. Okay. How did you like Cal Poly?

5 A. I loved it.

6 Q. Nice area, huh?

7 A. Very nice.

8 Q. How did you get to come to work at PG&E?

9 A. I guess a lot of different companies come to

10 campus and then you pass on your resumes and you

11 interview through the process. And I got the -- a job at

12 PG&E.

13 Q. Okay. Why did you pick PG&E?

14 A. Well, my -- the focus that I, electrical

15 engineering, we have various specialties that we study.

16 So what I focused on was on power electronics.

17 Q. On what?

18 A. Power electronics.

19 Q. What does that mean?

20 A. It means that you focus on how power flows and

21 mainly focus on power engineering.

22 Q. All right. As a little girl did you grow up

23 dreaming of one day working for PG&E?

24 A. No, I didn't even know PG&E. I was a kid.

25 Q. So why PG&E? Why did you choose PG&E?

26 A. My grandfather actually used to work for PG&E

1 for, I don't know, 25, 30 years. And that would have
2 something to do with it.

3 Q. All right. Some of the -- walk us through your
4 PG&E career from when you started to the present.

5 A. I started off on engineering rotational
6 program. My home base was Distribution Planning
7 engineer, but I rotated in various groups because that's
8 what the program is. In the program you rotate every
9 four months in different departments to learn what they
10 do.

11 So I started the Distribution Planning for one,
12 then I did at one with Operation Engineering for another
13 four months, then I also did underground engineering for
14 another four months.

15 Q. Okay. Once you finished your rotational
16 assignment, what did you do?

17 A. I liked the underground engineering aspect of
18 it, so I wanted start working with Asset Management and
19 underground.

20 Q. Okay. What is Asset Management?

21 A. Well, Asset Management is big, but it -- in
22 Asset Management we have various departments. I was, I
23 was in strategy engineering group, so my role of an
24 associating engineer was to learn from the seniors and
25 consulting engineers. So look to see what they do and to
26 learn assets, how they perform.

1 Q. Are you still an associate engineer?

2 A. No, I'm a senior engineer now.

3 Q. So you are -- you've risen to senior engineer

4 status; correct?

5 A. Yeah. I worked my way to become a senior

6 engineer.

7 Q. All right. And you're in Transmission Asset

8 Strategy?

9 A. Yes.

10 Q. What is Transmission Asset Strategy?

11 A. What --

12 Q. What do you do?

13 A. What's our role?

14 Q. Why does Transmission Asset Strategy exist?

15 A. So the Transmission Asset Strategy looks at all

16 the conditions that come from the field and look at

17 different types of criteria, study how the assets are

18 performing, and developing a strategy.

19 Q. What kind of strategy?

20 A. A repair or replace strategy.

21 Q. All right. How do you make a repair or replace

22 strategy?

23 A. From -- to speak from me, I look at the

24 notifications that come from the field to determine what.

25 Q. Notifications, you're talking about the tags

26 that are filled out by the workers in the field, for

1 instance, the towermen or the linemen or the troublemen,
2 of issues that they see; correct?

3 A. That's correct.

4 Q. Okay. So if somebody sees an issue in the
5 field, they generate a tag, that comes up to you as a
6 notification, and you decide what to do with it?

7 A. No. It goes through their supervisors, and the
8 supervisors -- this is before Camp Fire. That's how it
9 was done.

10 Q. Okay.

11 A. They process -- the supervisors process the
12 tag, and then I have the visibility to see the tag
13 afterwards.

14 Q. Okay. You made a very good point right there.
15 We're talking, we want to continue to talk about pre-Camp
16 Fire. So we don't really want to talk about what
17 happened post-Camp Fire.

18 All right. So if a supervisor's making a
19 decision on the tag, why do you need to see it?

20 A. To look at, to add other factors to it to make
21 sure that, that we may need a replacement, or repair is
22 sufficient enough.

23 Q. Okay. So --

24 A. What I develop is long-term solution; they
25 might be developing a short-term.

26 Q. You used the term repair, replace -- repair or

1 replace. Are there protocols within PG&E or standards
2 for how you make a decision whether to repair or replace?

3 A. I don't know.

4 Q. Well, you're the one that's partially making
5 that decision; right?

6 A. I recommend based on what the criterias that I
7 think should be. But --

8 Q. Okay.

9 A. I'm not the only one that makes that decision.
10 Various departments get involved.

11 Q. Okay. So how do you recommend -- on what basis
12 do you make a decision to recommend repair or replace?

13 A. On top of my head?

14 Q. Yeah.

15 A. The -- like I said, the notifications. Age,
16 environmental, public safety, or reliability, and others.

17 Q. Okay. How big a part does reliability play in
18 that decision?

19 A. I have to look at the data to see what
20 percentage we contributed to it.

21 Q. Well, reliability is a life blood of PG&E;
22 correct?

23 A. I don't understand. What do you mean?

24 Q. Reliability is what CALISO, CPUC, FERC, NERC,
25 WEC (phonetic), all of the regulatory agencies look at;
26 correct?

1 A. I don't make that determination. My boss tells
2 me which, what are we focusing on. Could be reliability,
3 could be --

4 Q. Okay. So -- but reliability is one of the main
5 focuses of your work; correct?

6 A. In the past, yes, it has been.

7 Q. And we're talking about pre-Camp Fire, that a
8 great detail of your work was based upon the simple
9 metric of reliability; correct?

10 A. That's when I was a reliability engineer.

11

12 (Grand Jury Exhibit 1242 introduced.)

13

14 Q. All right. You should have in front of you a
15 stack, and I have up on the big board Exhibit 1242. Do
16 you see Exhibit 1242? Do you see it?

17 A. Yes. I'm sorry.

18 Q. Can you tell us what 1242 is.

19 A. It's a, looks like it's a, the team that we're
20 at, Jon Eric Thalman.

21 Q. Okay.

22 A. Organizational chart.

23 Q. This org chart doesn't have any date or
24 anything on it. Do you remember when this was
25 approximately?

26 A. I don't remember.

1 Q. Well, who is Jon Eric Thalman?
2 A. He was my director.
3 Q. Is Jon Eric Thalman still with PG&E?
4 A. As far as I know, yes.
5 Q. Okay. Is he still your director?
6 A. No.
7 Q. How long has it been since Jon Eric Thalman was
8 your director?
9 A. How long was he my director?
10 Q. No. How long has it been since he's not?
11 A. I don't remember.
12 Q. Okay. And this is you --
13 A. Yes, sir.
14 Q. -- Feven Mihretu; correct?
15 A. Yes.
16 Q. And you were part of the Transmission
17 Reliability Division --
18 A. Yes, sir.
19 Q. -- correct?
20 What was Transmission Asset Reliability?
21 A. We looked at outage reports, and based on the
22 safety, and we determined which ones were performing
23 worse performance.
24 Q. Bingo. What is an outage report?
25 A. When an asset had a fault, when a circuit had a
26 fault, a momentarily or sustained outage.

1 Q. So basically a line stops working, that's an
2 outage; correct?

3 A. Yes.

4 Q. Electricity stops flowing through from point A
5 to point B, that's an outage?

6 A. Yes, sir.

7 Q. And so, and so a reliability, you're tracking
8 outages; correct?

9 A. Dave Gregory was tracking the outages.

10 Q. What were you doing?

11 A. The outage that he tracked, I look at the data
12 and analyze it.

13 Q. Analyze what data?

14 A. The data that Dave Gregory generates, which is
15 the outage report. When there's an outage, he has a
16 document that he tracks about the outage.

17 Q. Why is it important to have outage reports?

18 A. To make sure that the outage doesn't recur
19 again.

20 Q. Okay. Do you know where those outage reports
21 go outside PG&E?

22 A. I don't know who it was.

23 Q. Okay. So you don't know what's being done with
24 the outage reports?

25 A. What I know is what I used it for.

26 Q. What did you use it for?

1 A. To see how the asset, how the circuit is
2 performing.
3 Q. And did you generate reports?
4 A. Did I generate reports based on --
5 Q. Yes.
6 A. I believe so.
7 Q. Okay. Is that to identify the worst performing
8 circuits? Correct?
9 A. Yes, sir.
10 Q. And what happened to the worst performing
11 circuits?
12 A. So I was also part of a team where we went out
13 in the field and we looked structure by structure to see
14 if there is anything that is causing that outage to have
15 to occur.
16 Q. Did you ever go out in the field and look at
17 the Caribou-Palermo line?
18 A. I don't remember. Too many lines.
19 Q. Ever been up here?
20 A. It looked familiar, actually, when I was
21 driving here.
22 Q. Ever been up in the Feather River Canyon?
23 A. I don't remember.
24 Q. So I think I cut you off. What happens to the
25 worst performing circuits?
26 A. Like I mentioned, we look at all the worst

1 performing circuits and then we go out in the field and
2 we look at them --

3 Q. Okay.

4 A. -- line-by-line.

5 Q. And looking at the, at the circuit for what
6 purpose?

7 A. To make sure that the outage doesn't occur
8 again.

9 Q. Okay. How do you do that?

10 A. By walking tower to tower or structure to
11 structure.

12 Q. But how does your walking tower to tower,
13 structure to structure, prohibit or reduce the chances of
14 an outage happening again?

15 A. We're trying to see what, what could -- if you
16 have -- I'm going to give you an example.

17 Q. Okay.

18 A. If there is corroded insulator, then that might
19 be an indication of that we may need to replace that
20 insulator. So that's what the walk is. So I'm not
21 walking alone by myself, obviously; I have my boss and
22 other field folks with me.

23 Q. Right. So you go out and you walk these lines
24 and you find the source of the outages, then what?

25 A. We recommend for repair or replace.

26 Q. Recommend to who?

1 A. To the Implementation Team.

2 Q. Who is the Implementation Team?

3 A. That's a different group in Asset Management.

4 Q. Okay. Who are they? What's the -- is there a
5 special name for them or what?

6 A. The Asset Implementation Team.

7 Q. Okay. Do you know the names of any of the
8 people in the Asset Implementation team?

9 A. Prior to Camp Fire?

10 Q. Yeah.

11 A. I don't remember their names.

12 Q. Okay. You still work for PG&E; right?

13 A. I still work for PG&E.

14 Q. Have you been asked to sign any kind of
15 nondisclosure agreement?

16 A. No. I don't think so.

17 Q. Nobody's told you not to talk about the, how
18 the process works inside PG&E?

19 A. No.

20 Q. Is there anything you've been told not to talk
21 about?

22 A. No. In fact, my boss told me to be honest.

23 Q. All right. Let's move on to -- well, there's
24 page 2, I forgot about of that, 1242. Transmission Asset
25 Management and Regulatory Strategy.

26 Now, at the time that you were in Reliability;

1 right?

2 A. Yes, sir.

3 Q. "Developing and refining reliability strategy,
4 separated to increase focus." What does that mean?

5 A. So reliability strategy, to my understanding,
6 is that, like I mentioned, we look at the outage reports
7 and we identify the -- so the way I look at it,
8 reliability strategy is a short-term plan. You're trying
9 to fix from the outage recur. Where Asset Strategy
10 develops long-term solution.

11 Q. Okay. Asset strategy, where you're at now?

12 A. Yes.

13 Q. All right. So you said when outages occur that
14 you look at the line, that circuit, and you said to make
15 a decision repair, replace; correct?

16 A. I make recommendation to repair, replace with
17 my other -- at that time I was an associating engineer,
18 so I had senior engineers and subject matter experts.

19 Q. Are there other options besides repair or
20 replace?

21 A. Before Camp Fire?

22 Q. Yeah.

23 A. No, I don't really know. There might be. I
24 don't know. I didn't know of one.

25 Q. How about ignore? That was an option, wasn't
26 it?

1 A. It wasn't an option for me.

2 Q. Okay. But that was an option that was
3 available by the company, that when things went wrong you
4 simply just ignore them; correct?

5 A. I can't speak for everybody else. I can only
6 speak for me.

7 Q. Familiar with the term run to failure?

8 A. Yes.

9 Q. What does run to failure mean?

10 A. To me, run to failure is you still, you inspect
11 but you don't have a plan to replace it.

12 Q. What's the role of run to failure in PG&E Asset
13 Strategy?

14 A. I never really liked to use the term run to
15 failure. I use the term "assess and replace" or
16 "conditioned failure."

17 Q. Explain to us what those things mean and how
18 they differ from run to failure.

19 A. Because run to failure sounds like we don't
20 have any inspection program, where I think that we have
21 a, inspection programs. It's in our book.

22 Q. Well, in certain areas run to failure is
23 accepted industry standard; correct?

24 A. What was that?

25 Q. In certain areas in Transmission, run to
26 failure is an industry standard; correct?

1 A. Yes.

2 Q. Okay. So run to failure is not a bad word?

3 A. Yeah, I just never liked it as a person.

4 Q. You're preferred "run to condition"?

5 A. Condition to failure.

6 Q. Right. And failure being one of the

7 conditions?

8 A. Yeah. But if you're seeing an issue out in the

9 field, they will, they will repair it or they will

10 replace it. They do have that ability.

11 Q. Okay. So how about, how about if they can't

12 repair or replace it in the field?

13 A. Then they will involve the engineering.

14 Q. And how does an engineering make a decision

15 whether they're just going to ignore and let it fail or

16 repair or replace?

17 A. The T-line engineering group, I don't know how

18 they do it, but --

19 Q. But it would come to you at some point;

20 correct?

21 A. It will come to an SAP as a notification.

22 Q. Right. And you would be involved in the

23 ultimate decision of what are we going to do with this;

24 correct?

25 A. I recommend, I recommend to the Implementation

26 Group.

1 Q. Right. So your recommendation is either ignore
2 and let it go, repair it, or replace it; correct?

3 A. No, I didn't say ignore it. I never ignored a
4 condition that I'm aware of.

5
6 (Grand Jury Exhibit 1243 introduced.)

7
8 Q. Okay. All right. Let's move on to December
9 31st, 2017, Exhibit 1243. Do you see that?

10 A. Blurry, but yes.

11 Q. You can get up. You can walk around. You can
12 look. There's also printed copies of everything sitting
13 right in front of you.

14 A. Okay. Is this the copy, sir?

15 Q. Yes. That's the one we just got done looking
16 at. There's the one we have up right now.

17 Do you recognize what is Exhibit 1243?

18 A. Yes, sir.

19 Q. What is Exhibit 1243?

20 A. It's an organizational chart.

21 Q. From when?

22 A. Year says 12/31/2017.

23 Q. Okay. So as of 12/31/17 this shows you T-line
24 Asset Strategy and Reliability; correct?

25 A. Yes, sir?

26 Q. And you were reporting directly to Boris

1 Andino, the Electrical Transmission Asset Strategy
2 manager?

3 A. Yes, sir.

4 Q. Okay. And who are these other people?

5 A. The first one, Jeff Lockwood, Karla
6 Valenzuela --

7 Q. We can read the names. Can you tell us who
8 they, what they do, what their positions are, what their
9 jobs are?

10 A. Jeff Lockwood is the Reliability specialist.
11 Karla Valenzuela is an Asset Strategy engineer. Dr. Doug
12 Cannell, who is an Asset Strategy engineer. Michael
13 Best, he's specialize on -- I don't know exactly what his
14 title is, but he deals a lot with bird stuff.

15 Q. All right. And then looks like in your job and
16 T-line Asset Strategy and Reliability you have two other
17 people, looks like Michelle Sakamoto, and who is the
18 other person?

19 A. Vipin.

20 Q. Vipin?

21 A. Yes, Vipin Mathew.

22 Q. And then there's three positions there that are
23 open. Or is that something else?

24 A. Open positions, yes.

25 Q. And then down here there's Dave Gregory?

26 A. Yes, sir.

1 Q. And what does Dave Gregory do?

2 A. He's a Reliability. I don't know what his
3 title is, but I know him by the person that collects all
4 the data for T-line outages.

5

6 (Grand Jury Exhibit 1244 introduced.)

7

8 Q. All right. And 1244, now we're up to June of
9 2018. Do you recognize this?

10 A. Yes, sir.

11 Q. Explain to us what we're looking at here.

12 A. It's, again, another organizational change.

13 Q. Okay. So am I right in assuming that you will
14 no longer report directly to Boris Andino?

15 A. No. We had a supervisor between us.

16 Q. Okay. And at that, at this point in June that
17 position is vacant?

18 A. Yes, sir.

19 Q. All right. So if that position is vacant, who
20 do you actually report to?

21 A. We were still reporting to Boris.

22 Q. Okay. All right. And then we have some more
23 here. Going up the corporate chain, can you explain to
24 us on page 2 what we're looking at.

25 A. It's another organizational chart.

26 Q. Okay. So where do you fit in in this, this

1 chart?

2 A. Can I -- may I get up?

3 Q. Absolutely. No, no, always feel free to get
4 up, use the board.

5 A. So blurry I can't see my name.

6 Q. I don't think your name is going to be on
7 there. This is T-line Asset Strategy; correct?

8 A. Yes, sir.

9 Q. And they report directly to Boris Andino, and
10 this is an open supervisor position; correct?

11 A. Yes, sir.

12 Q. So that would be the supervisory position
13 directly above you; right?

14 A. Yes. I'll be underneath of the supervisor.

15 Q. All right. And now let's move on, move up to
16 the next level here.

17 Now we're up ultimately -- let's see -- you're
18 in Boris Andino's organization; correct?

19 A. Yes, sir.

20 Q. Boris Andino is right here; correct?

21 A. Yes, sir.

22 Q. And Boris Andino reports directly to Dave
23 Gabbard; that is correct?

24 A. That's correct.

25 Q. So ultimately you work under Dave Gabbard?

26 A. Yes, sir?

1 Q. Who is Dave Gabbard?

2 A. Dave Gabbard was the senior manager of Asset
3 Management.

4 Q. Was?

5 A. Yes, he was.

6 Q. Is he still with PG&E?

7 A. Yes, sir.

8 Q. Okay. What's his position now?

9 A. He got a new position as a senior director of
10 engineering and something. I don't remember his new
11 title.

12 Q. Okay. All right. Let's go through a few of
13 these others. You know Joscelyn Wong?

14 A. Yes, I do.

15 Q. Who is Joscelyn Wong?

16 A. She was the manager of Implementation Team, I
17 believe, at one point.

18 Q. So that's the team that when you make
19 recommendations about which jobs should be done or what
20 should be done about a problem, you said the
21 Implementation Team is the team that actually you send it
22 up to with the recommendation?

23 A. I send the recommendation through a tool.

24 Q. Right.

25 A. I don't directly send it to her.

26 Q. Right. But it's the Implementation Team that's

1 making a decision as to whether or not to do that
2 project; correct?

3 A. I don't know if it's up to them to make the
4 decision, but what I recommended, and then they --

5 Q. At the very least, though, the next step?

6 A. Above me, the next step, yes.

7

8 (Grand Jury Exhibit 1245 introduced.)

9

10 Q. All right. Now, let's move on to one more.
11 Now we're talking about October of 2018. Can you explain
12 to us what we're looking at here.

13 A. This is when we have the supervisor that we
14 report to.

15 Q. All right. What's your supervisor's name?

16 A. Mukul -- I'm going to probably mess up his last
17 name, but Shekhar.

18 MR. NOEL: Madam Reporter, that's first name
19 Mukul, M-U-K-U-L; last name Shekhar, S-H-E-K-H-A-R.

20 Q. (By MR. NOEL) All right. So your group here,
21 Transmission Line Asset Strategy, yourself working for
22 Mr. Shekhar; correct?

23 A. Yes, sir.

24 Q. All right. And goes up, ultimately Mr. Shekhar
25 reports to who?

26 A. I don't know. Report to Boris Andino. I can't

1 see.

2 Q. Boris Andino. Feel free, you can get up and
3 walk around, stand up, use the board.

4 Reports of -- for Andino, who it looks like on
5 this now reports to somebody named Tom Wright?

6 A. Yes, sir.

7 Q. Who is Tom Wright?

8 A. Tom Wright was senior director of Asset
9 Management and Rotation.

10 Q. When did Tom Wright take over?

11 A. He was there in Rotation. I don't remember
12 what day he took on.

13 Q. What does it mean to be "there in Rotation"?

14 A. The temporary assignment is how I understand
15 it.

16 Q. All right. So explain to us exactly what is
17 your job at Asset Strategy.

18 A. In Asset Strategy, my job is to look at the, to
19 look at the notifications in SAP, to look at other
20 factors; as I mentioned, age and other criteria to
21 determine to recommend repair or replace. That's really
22 like in the short way of explaining it.

23 Q. How much of your job in Asset Strategy is
24 engineering and how much of it is budgeting or finance?

25 A. I don't do much of finance. The only finance
26 that I consider in my job is to do net present value

1 analysis, which means that it helps me where I make a
2 recommendation whether to repair or replace. Sometimes I
3 look at it from what makes sense; if the repaired cost is
4 more than the replacement, then it don't make any sense
5 to recommend for repair.

6 Q. So is the decision to, repair-replace decision
7 in some part financially based?

8 A. You can say that, if it's relevant.

9 Q. All right. Moving on to 1241, can you explain
10 to us what 1241 is.

11 A. It's the various Major Work Categories that we
12 have.

13 Q. Okay. Looks like there are five columns --

14 A. Yes, sir.

15 Q. -- is that correct?

16 And going from left to right, it looks like the
17 left-hand column that doesn't have a name on it would be
18 a position; is that correct?

19 A. Yes.

20 Q. And then the columns go MWC 70, then MWC 71,
21 72, and MWC 93. And those are under the heading
22 "Capital." And then "Expense," MWC BF CH DF IB IC,
23 Maintenance, P&I, Mark and Locate, Special Projects."

24 Am I reading that right?

25 A. Yes, sir.

26 Q. All right. So your name appears on this chart

1 twice; correct?

2 A. That's right.

3 Q. So can you explain to us what your jobs were,
4 what the --

5 A. From what I can remember, there's one under
6 Major Work Category 93, and then it has my name on it, in
7 parenthesis "switches." So I was manager the assets
8 called, the assets that are switch assets.

9 On that one column where it says "Expense," it
10 shows assessments and underground under my name. The, if
11 I remember correctly, that would be the underground
12 projects that I had for expense work which repair or
13 recommend for inspection.

14 Q. What does "assessments" mean?

15 A. Assessment means you assess that asset and then
16 you make a determination. So I recommend: I would like
17 you to assess the underground system because I have this
18 and that concerns.

19 Q. Okay. So the patrol and inspections, does that
20 mean you're reviewing the patrol and inspection data?

21 A. If it's in SAP, I will review it once a year.

22

23 (Grand Jury Exhibit 1246 introduced.)

24

25 Q. Okay. Let's move on. 1246. Do you recognize
26 1246?

1 A. I'm sorry, but I don't.

2 Q. Okay. This appears to be a White Paper. Are
3 you familiar with the term "White Paper"?

4 A. Yes, sir.

5 Q. What is a White Paper?

6 A. It's a summary.

7 Q. Okay. And this is a White Paper dealing with
8 EO Transmission. That would be Electric Operation
9 Transmission; correct?

10 A. That's correct.

11 Q. Let's start with the back. We are all the way
12 to the end. And it lists subject matter experts. Is
13 that your name?

14 A. Yes, sir.

15 Q. And lists as a subject matter expert in
16 transmission line failures; correct?

17 A. I might have provided data. I don't remember
18 this document. I mean, I've seen it because it was sent
19 to me recently, but I couldn't recollect it.

20 Q. Well, how did you come, how did you come to be
21 an expert on transmission line failures?

22 A. Like I said, I might have provided data and
23 somebody just decided to put my name. I'm not sure.

24 Q. Okay. What kind of data?

25 A. I don't know. Whatever data they asked me.
26 I'm assuming. I don't remember giving them any

1 information. I just couldn't remember this document,
2 what my involvement was on this.

3 Q. Okay. But you've read this document; right?
4 You're familiar with all the statistics and numbers in
5 this document?

6 A. Yeah, the voltage classes, of the circuit
7 miles, yes. The type of conductor that we have in the
8 system, yes.

9 Q. So we're looking at figure 1. Can you explain
10 to us what a Root Cause Pareto Chart is?

11 A. I don't know who developed this. I don't know
12 what they were thinking.

13 Q. Okay. How about figure 2, trend of three
14 highest root causes?

15 A. Do I know what it means?

16 Q. Yeah. Can you explain this to us, tell us how
17 to read this?

18 A. If I were going to read this document and I was
19 going to make a speculation, it looks like, by year,
20 every year there is a number of outages that occur due to
21 tree, hardware, or conductor jumper, and they are trying
22 to see for a trend.

23 Q. Okay. Conductor failures by voltages?

24 A. Conductor failures by type.

25 Q. How about figure -- what is this? There's no
26 figure number on this. "Wire down events by year and

1 kV."

2 A. Yes. Looks like color coded by the voltage
3 class, kV.

4 Q. Okay. So what do the numbers in each of the
5 columns mean?

6 A. If I was going to speculate, what would be the
7 number, the numbers -- number of outages. Or could be
8 the number of failures, I'm not sure.

9 Q. So number of wires down events in a year?

10 A. That's what it looks like.

11 Q. Okay. All right. Let's move on.

12 All right. At some point were you involved in
13 something called the T-line Structures Committee?

14 A. Do I remember it?

15 Q. Yes.

16 A. Yes, sir.

17 Q. What was the T-line Structures Committee?

18 A. This was when I first started with the team. I
19 was an associating engineer scheduling the meetings and
20 taking notes, organizing the meeting. That was my role.
21 And then T-line Structure Committee, the purpose of the
22 team, the committee, was to look at various conditions in
23 the system and to determine what, what's a higher
24 priority. That's what I remember of it.

25

26 (Grand Jury Exhibit 1247 introduced.)

1
2 Q. All right. So what is 1247?
3 A. 1247. 1247?
4 Q. Yes. What is this document?
5 A. Oh, looks like meeting minute. At that
6 meeting, what the people that were assigned with an
7 action item.
8 Q. Okay.
9 A. That's what it looks like to me.
10 Q. So first it says "T-line Structures Committee,"
11 then it says "2009, 2010 goals"; correct?
12 A. Yes.
13 Q. And then we have three columns: Items, who,
14 and status. And you're listed in the item, "Define and
15 implement a structure rehabilitation and replacement
16 program"; correct?
17 A. Yes, sir.
18 Q. And who are the other people in your group that
19 are assigned to that project?
20 A. Rick Stockand was my supervisor; Randy Hopkins,
21 who was the senior consulting engineer; Nick Bhatt, who
22 was also a senior consulting engineer; and I believe
23 Cheung, that could be Mike Michael Cheung. I'm not sure
24 who the Cheung is.
25 Q. All right. So tell us about how you defined
26 and implemented a structure rehabilitation and

1 replacement program.

2 A. In 2009 and 2010?

3 Q. Yes.

4 A. Imagine young engineer following all the senior
5 engineers. I was pretty much taking notes at that point.

6 Q. Okay.

7 A. But later on I developed a, strategies when I
8 became a senior.

9 Q. So it says under "Status," "In progress,
10 program outline due by June 30th, 2010"; correct?

11 A. Yes, sir.

12 Q. So did you guys come up with a strategy for
13 structure rehabilitation and replacement?

14 A. I don't remember.

15 Q. Now, it also lists, "All, review draft Quanta
16 Component Strategy Report"?

17 A. Yes, sir.

18 Q. So what does, is a Quanta Component Strategy
19 Report?

20 A. Quanta is a contractor company that was hired
21 by PG&E to do a strategy recommendation. So they look at
22 every asset and they recommend what the strategy should
23 be for that asset.

24 Q. So that says postponed by September 18th, 2009;
25 date is recast to February 1, 2009."

26 All right. So eventually did you receive the

1 Quanta Strategy Report?

2 A. Yes, sir.

3 Q. And what did you do with it?

4 A. What did I personally do with it?

5 Q. Well, as your committee, it says T-line
6 Structures Committee, what did you do with the report?

7 A. The report, when the report was finalized, I
8 moved from the Reliability Strategy to T-line Asset
9 Strategy.

10

11 (Grand Jury Exhibit 1248 introduced.)

12

13 Q. Okay. I want to move on to 1248 that you have
14 in front of you.

15 A. Yes, sir.

16 Q. This is the report we're talking about,
17 correct, the Transmission Line Component Management
18 Report Summary?

19 A. That's correct.

20 Q. This is the, the report that your committee was
21 waiting for back in 2010 -- 2009? I'm sorry.

22 A. Yes, for the Quanta report to be completed.

23 Q. Okay. But you don't recall what, if anything,
24 was done with this report?

25 A. If anything was done with the report?

26 Q. Yeah.

1 A. We had a reorganize, and I -- they put me in
2 T-line Asset Strategy.

3 Q. Okay. But wouldn't a report on component
4 management be relevant to your position at Asset
5 Strategy?

6 A. Yes, it will.

7 Q. Okay. So the report was still relevant to what
8 you were doing with the T-line Structures Committee;
9 correct?

10 A. That's correct.

11 Q. So what was done with this report?

12 A. I used it to -- in 2017 and 2018 strategy that
13 I developed, I used this document to refer to.

14 Q. Okay. But in 2010, when this report came out,
15 did this report result in any changes within the Asset
16 Strategy Asset Management portion of PG&E?

17 A. I don't know.

18

19 (Grand Jury Exhibit 826 introduced.)

20

21 Q. Okay. And 1249 we're going to withdraw. So
22 put a big X across 1249.

23 All right. Let's move on. This one you're
24 going to have to use the paper one because that is a bad
25 copy of a bad copy of a bad copy. But you should have in
26 front of you Exhibit 826. It's already been entered into

1 evidence. Should be right after. That's right. I
2 forgot to pull them. We didn't pull them.

3 Okay. Well, the best we can do here, this is
4 -- come here and look at this. This is a meeting notice
5 for the T-line Structures Committee in 2010. You're the
6 organizer. Required attendees: Yourself and this whole
7 list of people. And it says that, the Quanta Structures
8 Report; correct?

9 A. I'm --

10 Q. It should say Quanta Report T-line Structure.
11 She has the actual exhibit there for you.

12 A. Thank you.

13 Yes, sir. T-line Structures.

14 Q. Okay. So that's another separate report from
15 Quanta; correct?

16 A. No, I think this was -- if I remember
17 correctly, this was the day the Quanta people came and
18 presented the report to the team.

19 Q. That's the T-line Structures Report, Exhibit
20 827, but it is being referred to?

21 A. I think it was the whole package of the Quanta
22 Report.

23 Q. Okay. Quanta did lots of reports; right?

24 A. Yes. For every asset.

25 Q. Right. One of those is the T-line Structures
26 Report, Exhibit 827; correct?

1 A. Yes.

2 Q. And you reviewed the T-line Structures Report?

3 A. I have reviewed it before, yes.

4 Q. Why were none of the recommendations of the

5 Quanta T-line Structures Report ever adopted at PG&E?

6 A. I don't know.

7 Q. Whose decision is it to not adopt these

8 recommendations?

9 A. It wasn't my decision.

10 Q. Whose was it?

11 A. I don't know, to be honest with you.

12 Q. Well, you're part of T-line Structures

13 Committee, you're part of the committee that's reviewing

14 this document right here; right? You're setting meetings

15 to review this document?

16 A. Yes, sir, but I was associating engineering;

17 pretty much take notes at that point.

18 Q. Right. You're not a decision maker?

19 A. No, not at all.

20 Q. Right. That's why you're sitting here. What

21 we want to know is who is the decision makers? Who are

22 the people that looked at this report and did not act on

23 those recommendations?

24 A. The senior directors, the directors; I don't

25 know.

26 Q. Okay. Well, you're part of the committee

1 that's advising them; correct? You're making
2 recommendations on what should be done; correct?

3 A. For this, no. I was an associating engineer;
4 didn't have the leverage to recommend or --

5 Q. You're still there; right?

6 A. Yes, sir.

7 Q. And now it's, it's, now it's ten years later
8 almost, and you're now a senior, senior engineer;
9 correct?

10 A. That's right.

11 Q. And let's go back to 2017. You were a senior
12 engineer in 2017; correct?

13 A. I became a senior engineer 2017, I believe,
14 2018.

15 Q. Do you ever go back and look -- do you remember
16 the Camp Fire happening?

17 A. Yes, I remember the Camp Fire happening.

18 Q. Did you watch and participate in all of the
19 emergency stuff at PG&E?

20 A. I was in the G-O, but I was part of the
21 Wildfire Inspection Enhancement Program.

22 Q. So -- and did you track the progress -- or
23 track why the Camp Fire happened?

24 A. That wasn't my role. My role was to look at
25 the notifications that were coming in and review and
26 assign priority.

1 Q. But you're talking about the post-Camp Fire?
2 A. Yes.
3 Q. You're talking about the CERT team. You're one
4 of the people who was evaluating the inspections that
5 were being done all over the place; correct?
6 A. In tier 2 and tier 3.
7 Q. And you knew what caused the Camp Fire by that
8 point; correct?
9 A. I don't know what caused the Camp Fire.
10 Q. You still don't know?
11 A. I mean, personally I don't know.
12 Q. Okay. What do you mean personally you don't
13 know? Have you been told by your employer what caused
14 the fire?
15 A. Yes. They said a C-hook.
16 Q. Right. A C-hook that broke?
17 A. Yeah.
18 Q. Okay.
19 A. I never seen the C-hook.
20 Q. You've seen the C-hook?
21 A. Not that C-hook that --
22 Q. You've seen other C-hooks?
23 A. Yes.
24 Q. You've seen lots of pictures of C-hooks with
25 lots of wear on them; correct?
26 A. As part of the CERT team?

1 Q. Right.

2 A. Yes.

3 Q. Did you ever go back and ask yourself, or ask
4 anybody else, why did we not adopt the recommendations of
5 the Quanta T-line Structures Report?

6 A. Well, in my Strategy I don't recommend.

7 Q. But you were on the committee that was
8 appointed to review this document. You were waiting --
9 you were setting up meetings for this document; correct?

10 A. Yes, sir.

11 Q. And none of these recommendations in that
12 document were ever adopted, correct, prior to the Camp
13 Fire?

14 A. I wouldn't say none of them. I implemented --
15 for example, I revised inspection forms to make sure that
16 I get the right information.

17 Q. Okay. Well, one of the biggest things in this
18 Structures Report was age of infrastructure; correct?

19 A. Yes, sir.

20 Q. Sixty-eight years is the mean life span of a
21 transmission structure; correct?

22 A. I don't remember top of my head, but that
23 sounds about right.

24 Q. If you want your old structures, if you want
25 your aged infrastructure to continue, you need to up your
26 game when it comes to inspection and maintenance;

1 correct?

2 A. Yes.

3 Q. Climbing inspections?

4 A. Yes.

5 Q. Enhanced, other enhanced inspections for older
6 structures; correct?

7 A. Yeah. So I don't know if you seen the 2018
8 Steel Structure Strategy that I developed, but all of
9 them --

10 Q. We're going to get to that in a few minutes.

11 A. Okay.

12 Q. Because you actually quote from this document;
13 correct?

14 A. Yes, I did.

15 Q. In 2018, when you're talking, and in 2017, when
16 you're talking about strategy going forward, you're
17 quoting from this document?

18 A. Yes, I do.

19 Q. And the question is why weren't those things
20 adapted, adopted prior to the Camp Fire and who made that
21 decision?

22 A. I don't know who made that decision, but I know
23 that at one point this was published or handed to PG&E
24 and went to Asset Strategy. And I wasn't in charge of
25 the T-line Steel Structures. I had a new boss, Erick
26 Corona, who assigned me different assets. I was in

1 charge of insulators, conductors.

2 Q. Okay. What was your boss's name?

3 A. Erick Corona.

4 Q. How do you spell that?

5 A. Erick, I believe it's E-R-I-C-K.

6 Q. We get that. I --

7 A. Corona?

8 Q. Yeah.

9 A. Like the beer Corona.

10

11 (Grand Jury Exhibit 1250 introduced.)

12

13 Q. Okay. 1250. And I got to go back and forth
14 here because some of these are lengthy documents and --

15 All right. So you recognize 1250, and you have
16 it in front of you, also?

17 A. I remember this email, yes.

18 Q. Okay. So tell us what we're looking at here.

19 A. This is --

20 Q. Well, just in general tell us what we're
21 looking at, then we'll get to specifics on the email
22 itself.

23 A. Okay. I see project, the Bay Water and Salt
24 Pond Foundation Detailed Inspection, the year, and the
25 money that was allocated for it.

26 Q. All right. So, in general, what is this email

1 chain about?

2 A. In general, this email is -- I raised a concern
3 with my boss that we need to look at the Bay Waters
4 structures and the salt ponds, another project along with
5 that, foundation structures that we have in our system,
6 and we presented this. My boss wanted me to review with
7 him for technical purposes technical information. And we
8 presented to the -- I believe he was a senior manager of
9 Maintenance and Inspection.

10 Q. Okay. So what was the Bay Waters Project?

11 A. Bay Water Project, we have 505 I believe steel
12 structures that are either in the water, of the Bay
13 water, crossing the bridge or in marshland. That was
14 the, those are the towers that I'm referring to when I
15 say Bay Water towers.

16 Q. Okay. So am I correct in reading this that
17 money's being taken from the Bay Waters towers to pay for
18 an underground transmission program?

19 A. No. This was multiple projects being discussed
20 in one email, and Bay Water being one of them and then
21 the underground being one of them.

22 Q. Okay. So I guess we'll just get into the meat
23 of this, which is this chart. Here in the middle on page
24 4 of 8, who is Raymond Trinh?

25 A. That was my manager at one time.

26 Q. Okay. What is PE?

1 A. PE?

2 Q. Yes.

3 A. Professional engineer.

4 Q. Okay. All right. So page 4, this is where we
5 end up. We have this chart that breaks down, I'm
6 guessing, spending; is that right?

7 A. So Jefferson was, I believe he was in charge
8 of, might have been Capital and Expense. So we're
9 asking, we're telling him that this is how much money we
10 need to have those towers for the underground project to
11 be inspected.

12 Q. All right. So --

13 A. And the money usually comes from the account
14 number that we're assigning to do the work.

15 Q. So Mr. Trinh is saying, "For the overhead tower
16 inspections, I don't think we would be able to do any
17 repairs and incur any land costs shown in items 3 and 4
18 in 2015."

19 So is 3 and 4 "Severe Deterioration Repair" and
20 "Land and Environmental"?

21 A. That's how I read it.

22 Q. So am I reading this right that Mr. Trinh is
23 saying those budgets are going away?

24 A. Yes, that's what it reads.

25 Q. Okay. So the budget for Transmission, that
26 budget, that \$1.1 million that was forecasted for severe

1 deterioration repair and land and environmental weren't
2 actually there, they disappeared for 2015; correct?

3 A. I, actually I went to maternity -- that's how
4 -- I went on maternity leave necessary when I had my son
5 and child. That's why you'll see in the email up saying,
6 "out."

7 Q. There's another one -- you're right. There's
8 an email saying that Feven is out.

9 A. I went on maternity leave.

10 Q. What is the severe deterioration repair of the
11 Tower Department?

12 A. Tower Department had notifications on towers
13 that were corroding. They were deteriorating. So they
14 were in need of repair.

15 Q. Okay. Repair as opposed to replace?

16 A. Tower Department recommend them to be repaired.

17 Q. Okay. But they're severely corroded, but now
18 they're not going to be done; right?

19 A. That's what it says from the, Raymond's email.

20

21 (Grand Jury Exhibit 1251 introduced.)

22

23 Q. Let move on to 1251.

24 Do you recognize -- you read 1251. I
25 specifically want to focus on the email June 10th, 2016,
26 from Raymond Trinh to a group of people that includes

1 yourself.

2 A. Yes, sir.

3 Q. All right. Who is Laszlo Forgo?

4 A. He is the corrosion engineer.

5 Q. Jake Meyer?

6 A. He was, he was, he worked with Jefferson. He
7 was, he was in the finance side.

8 Q. Okay. Logan Magness?

9 A. I actually don't remember him.

10 Q. Okay. How about Manho Young?

11 A. Manho Young was my liaison; he was a senior
12 director.

13 Q. What was his job at this time?

14 A. I believe he was the, still a senior, senior
15 director.

16 Q. All right. Now, "Thank you for your time this
17 morning. Here are some action items and notes I took.
18 Let me know if I missed anything. Develop a
19 comprehensive plan for tower risk with an emphasis on
20 steel corrosion risks."

21 A. Yes, sir.

22 Q. At this point, PG&E had no plan for,
23 comprehensive plan for tower risk and steel corrosion
24 risks?

25 A. Not that I know. The Quanta report is the only
26 one I knew. Raymond Trinh, before he became my manager,

1 he was the person that was managing the asset, steel
2 structure assets.

3 Q. Okay. And then, "Plans should include
4 maintenance plans, detailed inspections specification,
5 repair versus replace criteria, capital and expense cost
6 estimates, risk database, and update standards."

7 Do I read that correctly?

8 A. Where are you reading? I wasn't following.

9 Q. I'm sorry, right here. First bullet point
10 under "Develop comprehension plan."

11 A. Yes, sir.

12 Q. Okay. So, to your knowledge, was there ever a
13 maintenance plan developed, comprehensive maintenance
14 plan, for tower risk with emphasis on steel corrosion
15 risks?

16 A. Prior to, prior to this date?

17 Q. No, prior to the Camp Fire.

18 A. Yes, the one that I developed in 2017 and 2018.

19 Q. Okay. And how about are there developed
20 written established repair versus replace criteria?

21 A. I had developed one for the Bay Water and the
22 standard one that I used throughout.

23 Q. Okay. But is there a PG&E standard criteria
24 for making repair versus replace determinations for
25 everything for all of the transmission assets?

26 A. Not that I'm aware of.

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(Grand Jury Exhibit 1252 introduced.)

Q. Let's move on to 1252. 1252, right there in front of you.

A. Yes, sir.

Q. What is 1252?

A. Looks like a meeting requested by David Gabbard.

Q. Who is Dave Gabbard?

A. He was, at this time he was the senior director of Asset, Assets Management.

Q. All right. And this is a meeting that you were attending?

A. To answer, I don't remember attending this meeting. I wasn't even -- I'm not even sure why I was being invited.

Q. All right. Well, the subject for the meeting says, "Discuss Aging Infrastructure Initiative"; correct?

A. That's what it says here, yes, sir.

Q. What is the Aging Infrastructure Initiative?

A. I don't know what they talked about. Like I said, I don't remember going to this meeting.

Q. Have you ever heard of anything called the Aging Infrastructure Initiative within PG&E?

A. I have heard of the aging infrastructure.

1 Q. Well, "infrastructure" is just a description --
2 A. Yes.
3 Q. -- of PG&E's, basically, assets; correct?
4 A. Yes.
5 Q. But what about the Aging Infrastructure
6 Initiative?
7 A. I might have heard the word before, I don't
8 remember. But I just don't remember this document.
9 Q. All right. So you don't remember attending
10 this meeting?
11 A. No, I don't remember.
12 Q. There's a PowerPoint that's listed herein,
13 Aging Infrastructure Initiative?
14 A. Yeah.
15 Q. Do you remember the Deteriorating Transmission
16 Assets Project?
17 A. Deteriorating Asset, a program?
18 Q. Okay. Could be a program.
19 A. I know the Tower Replacement Program.
20 Q. That's going to be the next one.
21 A. That's the one that I remember.
22 Q. All right. What's the Tower Replacement
23 Program?
24 A. The Tower Replacement Program was put by
25 various subject matter experts to come up with when and
26 how do we replace a tower --

1 Q. And --

2 A. -- was the plan.

3 Q. -- when did the Tower Replacement Program

4 start?

5 A. The Tower Replacement Program started, I want

6 to say, either late 2017 or early 2018.

7 Q. What was the goal of the Tower Replacement

8 Program?

9 A. Well, just like every other utilities, we have

10 an aging structures, so before we have a cascading

11 failure, we want to make sure that we start replacing

12 them based on different criteria.

13 Q. What do you mean by "cascading failure"?

14 A. Meaning like we may not, we don't want to have

15 a bubble of failures.

16 Q. Of what?

17 A. Failure. Like a structure failure. We had --

18 there was one structure that fell, river crossing, so we

19 start noticing that maybe there might be other ones that

20 look like that.

21 Q. By "failure," do you mean tower falling down?

22 Right?

23 A. Yes, sir.

24 Q. That's not a good thing; right?

25 A. Not at all.

26 Q. Okay. So five towers on the Caribou-Palermo

1 fell down in December of 2012. How was that viewed?

2 A. I don't know.

3 Q. You're the Transmission Line transmission
4 failure expert, the structure failure expert; correct?

5 A. Not at that time.

6 Q. Okay. All right. So you don't remember
7 anything about this Aging Infrastructure Initiative;
8 right?

9 A. No, I don't.

10 Q. And you never heard of the Deteriorating
11 Transmission Assets Project or Program; correct?
12 Deteriorating Transmission Assets Replacement Program?

13 A. I don't recall.

14 Q. But you're in Asset Strategy?

15 A. We hear the word, I heard the word "aging,
16 deterioration," but what was throwing me off is the
17 "program."

18 Q. So in your time in Asset Strategy, has there
19 been any actual program to replace the aging
20 infrastructure? For instance, the Caribou-Palermo line?

21 A. The Caribou-Palermo line?

22 Q. Yeah. Like the Caribou-Palermo line?

23 A. Can you ask the question again, a different way
24 maybe?

25 Q. Do you know of any programs, projects,
26 initiatives, anything else in PG&E that actually started

1 replacing these transmission assets that have survived
2 past their useful life?

3 A. We were, have a lot of projects, the Bay Waters
4 and the salt pond, the high risk structures, identified
5 in my strategy.

6 Q. Right.

7 A. Yes.

8 Q. But how old are the Bay Waters towers?

9 A. It varies. Some of them go up to 92.

10 Q. Ninety-two years old or --

11 A. Ninety-two year old.

12 Q. -- 1992?

13 A. Ninety-two year olds.

14 Q. Okay. Outside the Bay Waters -- now, the Bay
15 Waters, that's all down in the inner Bay Area; correct?

16 A. That's correct.

17 Q. Those are the transmission lines that feed San
18 Francisco, Marin County -- or not Marin County -- San
19 Francisco and the peninsula; correct?

20 A. Correct. And we have salt water, Delta water,
21 and other identified high-risk steel structures that have
22 been within PG&E territory or system.

23 Q. And those, all of those systems, all those
24 areas you're talking about are high-density population;
25 correct?

26 A. Can be.

1 Q. If you get a failure in those, in one of those,
2 it's going to affect a lot of people; right?

3 A. In my strategy, I focused on various things.
4 Public safety was one of them. Reliability was one of
5 them. Age was one of them. The environmental impact.
6 So I considered all that and more to determine to
7 nominate the work.

8 Q. What was your budget for the Bay Waters towers
9 for repair and replace? Didn't I see something?

10 A. I'm an engineer. My focus is I try to stay
11 away from the finance part.

12 Q. Right.

13 A. Because it doesn't help me with the
14 determination. Conditions really helps me to nominate.

15 Q. But didn't I see somewhere that your budget in
16 the Bay Waters was something like \$500 million for repair
17 and replace?

18 A. I think I had gotten a quote for replacement of
19 a tower in the Bay Waters before. I believe that was
20 roughly about 10 million per structure.

21 Q. Okay. All right. So other than the Bay Watch
22 [sic], are you aware of any other project in the 12 years
23 you've been with PG&E now at Asset Strategy, any other
24 projects that actually replaced, repaired aging
25 infrastructure?

26 A. Yes.

1 Q. What?

2 A. I don't remember the name of the line, but it
3 was in what is -- I'm trying to remember the city name or
4 the -- it's past San Jose. That there was a line that I
5 developed a repair, replace strategy for.

6 Q. Do you remember when that was and why?

7 A. That was in, that was before Camp Fire, I want
8 to say either late 2017 or early 2018. Might have been
9 late 2018. But the reason was because the inspectors
10 had, the linemen and the troublemen had concerns with the
11 condition of the structures, and they created
12 notifications. And once I look at the notifications, I
13 told them to use a different format to capture the
14 conditions better for me so I can analyze the data and
15 help them.

16 Q. What kind of conditions?

17 A. The deterioration of the asset, like material
18 losses.

19 Q. What kind of deterioration? Where was it
20 deteriorating?

21 A. It could be because it wearing in the
22 environment it was in.

23 Q. No, no, I'm talking about what parts of the
24 tower were deteriorating.

25 A. Oh, mainly those ones, if I remember correctly,
26 were of the stand angle, where the foundation comes and

1 is placed with the structure.

2 Q. Okay. We've got to move on because I know you
3 have a child you have to go pick up.

4 A. Yes, I do.

5 Q. So we need to get you out of here.

6 Now we've moved on. 1239. This is another
7 meeting notice. It's probably out of -- we've already
8 talked about it. This is another meeting you're being
9 invited to, you're a required attendee here; right?

10 A. Yes, sir.

11 Q. And this is a meeting that's being called by
12 Jake Meyer?

13 A. Yes.

14 Q. And who is Jake Meyer?

15 A. He was working closely with Jennifer and with
16 Jefferson. He was in the, in the Finance side of the
17 house.

18 Q. Okay. And this, the subject is Expense Funding
19 Request; correct?

20 A. Okay. Yeah. Yes.

21 Q. So you're being invited to a meeting to talk
22 about expense funding requests?

23 A. They wanted to inform me -- or if they needed
24 technical support, they would invite me to a meeting.

25 Q. Okay. And actually I shouldn't say "invited."
26 You're being told you're going to a meeting; correct?

1 You're a required attendee?

2 A. They required me to go, yes.

3 Q. All right. So, "The purpose of the meeting is
4 to obtain leadership guidance of which items to pursue
5 and where." Let's see. Oh, the, "This input is
6 important given the Expense reduction pressures being
7 pushed down on Transmission Operations for 2017."

8 So can you explain that to us.

9 A. In my role, it doesn't really mean anything to
10 me. I attend the meeting for technical purpose. And I'm
11 assuming Eric and -- Eric Back, who was in charge of the
12 Expense, so it was mainly for him to make a decision
13 which ones he wanted to move forward with first.

14 Q. So am I reading this right, pressure is being
15 put on to reduce expense budget for Transmission in '17?

16 A. Yes.

17 Q. And that would include things like patrol and
18 inspection?

19 A. I would assume so.

20 Q. Okay. So that would affect you; right?

21 A. Yeah, it would. It would affect me because I
22 wouldn't get all the information from the, from the field
23 if they are not inspecting the --

24 Q. Right. Walk us through how it is that a,
25 basically a project goes from notification to happening.

26 A. So linemen or troublemen or towermen will go to

1 the site and they inspect. It they find something, they
2 will create a notification. And the notification goes to
3 their supervisors. And the supervisors would either
4 agree with what they are saying or they will go out into
5 the field. At least that's the process that I was told.
6 And then they make the notification in LC. From what we
7 call it, S5, which is the stage, becomes a line
8 corrective. They give it a priority code, how long the
9 repair needs to take.

10 And once that has been closed, I want to see
11 like what repairs have been done to the asset, because
12 that would help me. How many times are we repairing this
13 asset in terms of maybe now it's time to retire the
14 asset, meaning replace the asset.

15
16 (Grand Jury Exhibit 1253 introduced.)
17

18 Q. Okay. All right. Let's move on to 1253. Do
19 you recognize 1253?

20 A. Yes, sir.

21 Q. What is 1253?

22 A. The Steel Structure Strategy I developed in
23 2017.

24 Q. All right. What is a Steel Structure Strategy?

25 A. A Steel Structure Strategy in 2017, basically,
26 basically it look at the highest risk of structures that

1 I know of or other supervisors send me an email for. So,
2 as I say, oh, in our area -- because I send them an email
3 saying, "Do you have any area of concerns with the towers
4 that are in your area?" And some of them responded
5 saying, "Yes, we have those." And I included those into
6 this, into the 2017 strategy.

7 Q. Why are you writing a 2017 strategy?

8 A. This was actually the first time I was told to
9 develop a Steel Structure Strategy. Remember, I told you
10 earlier I had conductors and --

11 Q. Right.

12 A. This is the first time that Raymond, Raymond
13 Trinh became my boss. And he had me the Steel Structure
14 Strategy.

15 Q. Should there be Steel Structure Strategies
16 written before this by other people?

17 A. I can't speak for them. Yeah, Raymond should
18 have developed one.

19 Q. Okay. All right. Let's go through this.

20 So, "Transmission Line Steel Structure Strategy
21 will manage the asset life cycle based on risk."

22 What does that mean?

23 A. "Based on risk" means based on different
24 criteria that we have to come with up with. A risk in
25 Asset Management has been defined, probability of failure
26 times the consequence. The consequence could be the

1 consequence of public safety, reliability, or
2 environmental.

3 Q. Which of those is the most important?

4 A. Public safety comes first. Public safety comes
5 first.

6 Q. Comes first in the section, but in reality
7 which is the most important of those criteria?

8 A. To me it's -- safety is the, always been the
9 highest.

10 Q. Okay. So the first thing you want to look at
11 when you're making a decision is safety?

12 A. Yeah. The condition first and then safety.
13 Meaning like as they go hand-in-hand with the other. If
14 the asset is in held condition, then probability of asset
15 failing is less, so impact from a safety perspective is
16 also less.

17 Q. All right. So we have short-term goals, we
18 have long-term goals; correct?

19 A. That's correct.

20 Q. Structure count?

21 A. Yes, sir.

22 Q. Age of steel structures. Explain this chart to
23 us.

24 A. This is the age that we have on steel
25 structures in the system, color coded by the voltage
26 class.

1 Q. Okay. Blue is 230, green is 115, and purple is
2 500?

3 A. Yes, sir.

4 Q. Then down at the bottom it says, "Structures
5 age data life expectancy is from a 2010 Quanta Technology
6 study"; correct?

7 A. That's correct.

8 Q. So those are the studies that we talked about
9 earlier that you were looking -- you were on the T-line
10 Structures Committee in 2010, you guys were waiting for?

11 A. Yes, sir.

12 Q. The same report to which the recommendations,
13 none of the recommendations were ever adopted; correct?

14 A. You can say that I guess.

15 Q. So the mean life expectancy is 65 years. The
16 average age of PG&E's asset inventory is 68 years;
17 correct?

18 A. Yes, sir.

19 Q. All right. Let's see what we got. This is
20 interesting. Over six years, 2011 to 2016, outage has
21 claimed one tower failure. Can you explain to us what
22 that means?

23 A. Where were you?

24 Q. The top.

25 A. Over outage history, one tower failure.

26 Q. Right here.

1 A. Yes.

2 Q. Talks about the Moss Landing. One tower fell
3 down from Moss Landing?

4 A. Yes, sir.

5 Q. So are you saying that this is the only tower
6 failure in PG&E at that time?

7 A. From the data that I was looking at, that's the
8 only one that I found.

9 Q. 2011 to 2016, the 2015 Moss Landing is the only
10 tower failure you found?

11 A. Yes, sir.

12 Q. You didn't find that five towers on the
13 Caribou-Palermo fell down in December of 2012?

14 A. Not on the data record that I was looking at,
15 no.

16 Q. Any idea why the fact that five towers --
17 that's a pretty big thing, five towers just falling down;
18 right?

19 A. Yes, sir.

20 Q. You're in Asset Strategy. Why would you not
21 know about five towers falling down?

22 A. I was an associate engineer. I didn't know.
23 But the record that I was looking at was in the outage
24 history.

25 Q. That is then. This is now. This is 2017.
26 You're now a senior consulting engineer; right?

1 A. Not at this time when I developed this.

2 Q. All right. This is an exhibit that was
3 submitted by PG&E to FERC proceedings; correct?

4 A. It might have been. I know that it was
5 approved in that fashion.

6 Q. In the United States of America, before the
7 Federal Energy Regulatory Commission, docket number ER
8 162320, Exhibit PUC 0057, Steel Structure Strategy. And
9 then you have the markings up in the right-hand corner,
10 Exhibit, PUC 0057, page 1 of 17, and so on.

11 All right. So can you explain to us the, this
12 chart on page 11, how we read this?

13 A. Yes. The, on the bottom it's the year, and on
14 the right-hand side -- may I?

15 Q. Go, please do.

16 A. Emergency T-line replacement. How many are
17 replacing 2012. And they are color coded. So the blue
18 one is emergency, the red one is T-line replacement, and
19 the green is NERC compliance replacement.

20 So the blue under emergency 2012, I was
21 informed that we had one tower replacement. And then our
22 steel structure replacement appears to be the power pole.

23 Q. Right.

24 A. Then red had the T-line replacement, replace
25 three.

26 Q. Right.

1 A. Then the NERC is on this side. So NERC
2 compliance, for example, so 2014 we NERC replaced nine,
3 nine steel structures.

4 Q. Right. Because we have, on the left side we
5 have 0 through 6, then on the right side we have 0
6 through 140?

7 A. Yes.

8 Q. So how do you read a chart like that?

9 A. So the reason for the chart like that is
10 because the numbers on the NERC, for example, is higher.
11 So it wouldn't fit in one, in one graph. Like here you
12 would not be able to see the 1s and the 3s --

13 Q. Right. So --

14 A. -- wanted to.

15 Q. -- why not just do two separate charts?

16 A. I'm an engineer; we complicate things.

17 Q. Next one, transmission steel structures average
18 installations next five years. So this is looking in the
19 future; correct?

20 A. Yes, sir.

21 Q. This is forecasting what you're going to be
22 doing in the future; right?

23 A. Yes, sir.

24 Q. So explain to us how to read this chart.

25 A. Based on historical emergency data, capital,
26 Capital projects are due to increase due to the load of

1 the conductor, and it might require the towers to be
2 replaced. Because with the newer, bigger conductor the
3 structure on the foundation may not be able to handle it.
4 So the Capital project, I asked them, "How many
5 structures do you plan to replace in the next five
6 years?"

7 Q. Okay.

8 A. And so that's those.

9 Then this is the T-line replacement and NERC.
10 So out of the worst model that I followed, I anticipated
11 that in 2018 replace this many, in 2019 replace 160.

12 Q. And in 2019, 2018 you were predicting that you
13 would replace 42 towers for NERC compliance?

14 A. Yes.

15 Q. And in 2019 that would be 15 towers?

16 A. Yes. And the program was --

17 (Court reporter interrupts proceeding.)

18 A. The NERC program was ending, so that's why you
19 don't see any more green on 2020 and 2021.

20 Q. Now, this, on page 13, those are all the plans,
21 steel structure replacements; correct?

22 A. Yes, sir.

23 Q. Okay. Finally, page 18, can you explain to us
24 how to read this page?

25 A. This slide was put together by Boris Andino,
26 who was my manager. He has his own ways of explaining

1 things I don't understand. This is, this is the asset
2 conductor steel structures and then the counts and the
3 miles. I believe he got this from the PAS 55 document on
4 what a risk is. And this is his way of defining a life
5 cycle for a low risk, medium risk, and high risk that he
6 defined.

7 Q. So what would be considered low risk?

8 A. That would be a question for Boris. Boris.
9 And he would have put his name on it.

10 Q. So low risk. It says, "Life cycle, low risk;
11 strategy, run to failure." Correct?

12 A. Yes.

13 Q. "Create low end controls." Do you understand
14 what that means?

15 A. I don't.

16 Q. "Utilize minimal patrols to continuously assess
17 risk"; is that correct?

18 A. That's what it says.

19 Q. "Maintain, no maintenance. Renew, only
20 replacement. No repairs. And dispose, leave and do not
21 maintain."

22 So if it's a low risk asset, whatever this is,
23 basically you're just going to run it to failure, you're
24 going to do the very least that you can and let it go;
25 correct?

26 A. Like I said, that question should be better

1 answered by Boris Andino.

2 Q. But this is attached to a report that you
3 authored; right?

4 A. Yeah, but I made sure that his name was there.

5 Q. Right. So why do you have a slide that you
6 don't understand in a report that you authored that was
7 submitted in a federal regulatory proceeding?

8 A. I -- my name was for the other slides, not this
9 specific slide.

10 Q. Right. But the report is yours. Name on the
11 front page of that report is yours; correct?

12 A. Yes, sir. I was the engineer for the, for the
13 majority of the report in this.

14 Q. But --

15 A. Contacts with PG&E, I put his name on there.

16 Q. Contacts within PG&E Asset Strategy, Boris
17 Andino?

18 A. That's right.

19

20 (Grand Jury Exhibit 1254 introduced.)

21

22 Q. Okay. Final exhibit. The last one you have in
23 front of you. Brought this up earlier. The Transmission
24 Line Overhead Asset Management Plan from December of
25 2018?

26 A. Yes, sir.

1 Q. What is this document?

2 A. This is a -- so the format that you looked at
3 earlier was of the ways that I developed the strategy,
4 what PAS 55 has, the ISO Standardized Asset Management
5 Plan. And this is the, using the ISO PAS 55 standardized
6 format for all the strategies.

7 Q. Okay. So this lists documents owner David
8 Gabbard, or Dave Gabbard; correct?

9 A. Yes, sir.

10 Q. Document approve Kevin Dasso?

11 A. Yes, sir.

12 Q. But you actually wrote this document; correct?

13 A. I didn't write the whole document.

14 Q. Okay. Did -- was this a team of people or --

15 A. Yes.

16 Q. Explain to us how this document was created.

17 A. So all the Asset Strategy engineers have assets
18 that they, we manage. So I manage three assets, so
19 anything that are related to those.

20 Q. What three assets?

21 A. Steel structures, underground system, and
22 sewages.

23 Q. Okay.

24 A. This is for the overhead portion of the
25 strategies that I have, will be the steel structures,
26 which is the steel structure will be part of mine, for

1 example. So if -- but there are other assets like
2 insulators that were developed by other people.

3 Q. All right. Who else participated with you in
4 the drafting of this document?

5 A. Michelle Sakamoto, Raymond Trinh, and Boris
6 Andino, and Mukul Shekhar.

7 Q. Okay. What was the purpose of this document?

8 A. So PG&E was moving with the standardized ISO
9 PAS 55 format.

10 Q. Okay. What is the PAS 55?

11 A. It's how all other utilities or other big
12 companies use to communicate their plan. That's how I
13 understand it.

14 Q. Okay. Was there a Transmission Line Overhead
15 Asset Management Plan prior to this?

16 A. Not to my knowledge, no. I don't think so.

17 Q. How long did it take you to draft this?

18 A. Well, Michelle was the main person drafting
19 this one. And then I was drafting the underground one.

20 Q. All right. Is Michelle still with the company?

21 A. Yes, sir.

22 Q. All right.

23 Do you have anything else?

24 MS. DUPRE-TOKOS: No.

25 Q. (By MR. NOEL) I'm guessing, just to make sure
26 it's clear --

1 A. Yes, sir.

2 Q. -- the date of publication is December 14th,
3 2018; correct?

4 A. Yes.

5 Q. But you were actually drafting this document
6 well before that; correct?

7 A. I was helping with portions of it --

8 Q. Right.

9 A. -- in 2018, yes.

10 Q. 2017?

11 A. No.

12 Q. Okay.

13 All right. Any questions?

14 The jurors have the opportunity to ask you
15 questions now that I'm done.

16 A. Okay.

17 Q. We will review their questions real quickly and
18 ask you in a second.

19 (Grand Jury Foreperson and counsel confer.)

20 Q. (By MR. NOEL) All right. In your experience,
21 do age and environmental factors have a substantial
22 effect on the reliability of a transmission asset?

23 A. Yes.

24 Q. We have seen reports generated by PG&E that
25 proposed a \$10 million Capital project made in 2010
26 through 2014 that appears to have simply disappeared from

1 consideration after 2014. Are you or any -- or are you
2 or were you aware of this proposed project?

3 A. No, I'm not aware of.

4 Q. Would the catastrophic failure of five tower
5 structures on any given transmission line move to the
6 head of the line for replacement and repair?

7 A. I don't understand the question.

8 Q. The catastrophic failure of multiple structures
9 on a line, in this case five structures on one line,
10 wouldn't that fact alone move that transmission line to
11 the head of the line for replacement or repair?

12 A. That will be a Transmission Planning proposal.

13 Q. So that would be up to somebody else?

14 A. Yes, sir.

15 Q. Who is that?

16 A. Transmission Planning.

17 Q. Who is Transmission Planning?

18 A. Transmission Planning is in charge of what
19 needs to be revealed.

20 Q. Okay. Do you have any names of people in
21 there?

22 A. Are you looking for a senior director,
23 director, manager?

24 Q. Sure. Senior director.

25 A. I believe it fell under Dave Gabbard, his
26 organization.

1 Q. That's now?

2 A. No, before.

3 Q. Before?

4 A. Before Camp Fire.

5 Q. And what about back in 2012/2013, would that be
6 Manho Young?

7 A. That would -- I believe so. I think so.

8 Q. If you recommend the urgent replacement of an
9 asset and someone above your management level simply
10 conceals or fails to move on your recommendation, what,
11 if any, mechanism do you have to have that decision
12 revisited?

13 A. I don't have much of a leverage. I nominate it
14 and people above me make the decision to whether we
15 repair or replace or not do anything at that point.

16 MR. NOEL: Anything further? Any follow-up?

17 All right. Madam Foreperson will have an
18 admonition for you. Barely getting you out in enough
19 time to go get your kids.

20 THE WITNESS: Thank you.

21 GRAND JURY FOREPERSON: Ms. Mihretu?

22 THE WITNESS: Yes.

23 GRAND JURY FOREPERSON: You are admonished not
24 to discuss or disclose at any time outside of this jury
25 room the questions that have been asked of you or your
26 answers until authorized by this Grand Jury or the Court.

1 A violation of these instructions on your part may be the
2 basis for a charge against you of contempt of court.
3 This does not preclude you from discussing your legal
4 rights with your own attorney.

5 Ms. Mihretu, what I have just said is a warning
6 not to discuss this case with anyone except the Court,
7 your lawyer, or the district attorney.

8 THE WITNESS: Yes.

9 GRAND JURY FOREPERSON: Any questions?

10 THE WITNESS: No questions.

11 GRAND JURY FOREPERSON: Thank you for your time
12 today.

13 THE WITNESS: Thank you.

14 MR. NOEL: All right. You are done. Thank
15 you.

16 [DISCUSSION OMITTED.]

17 (Lunch break taken.)

18 [PROCEEDINGS OMITTED.]

19 [ROLL CALL OMITTED.]

20 [DISCUSSION OMITTED.]

21 GRAND JURY FOREPERSON: Mr. Ho, before you have
22 a seat, would you please raise your right hand to be
23 sworn.

24

25 HENRY HO

26 having been called as a witness in

1 the matter now pending, having been first
2 duly sworn, testifies as follows:

3
4 THE WITNESS: Yes, I do.

5 GRAND JURY FOREPERSON: Thank you. Have a
6 seat, please.

7
8 EXAMINATION

9
10 BY MR. NOEL

11 Q. Mr. Ho, for the record, could you please state
12 your full name, spelling your last name.

13 A. It's Henry W. Ho. Do you want the middle name,
14 also?

15 Q. No, we don't need that.

16 A. Okay.

17 Q. Spell your last name, please.

18 A. Ho, H-O.

19 Q. Are you employed, Mr. Ho?

20 A. Yes.

21 Q. By whom?

22 A. By Pacific Gas & Electric.

23 Q. What do you do for Pacific Gas & Electric?

24 A. I was a senior consulting civil engineering
25 with Transmission Line's civil engineering group.

26 Q. What does a senior consulting engineer do?

1 A. Well, in the civil engineering department, we
2 design, construct, and -- transmission line, tower
3 foundations, and tower.

4 Q. What's the difference between a senior and a
5 junior or associate?

6 A. Well, it's just the more experienced you are,
7 the, you know, you take that title. You go from
8 journeyman to the senior level.

9 Q. Are you a licensed civil engineer?

10 A. Yes, I am.

11 Q. Please explain to us your education and
12 training that qualifies you as a civil engineer.

13 A. Okay. So I got my, I got a bachelor's degree
14 from University of California, Berkeley, and also a
15 master's degree at the same institute. That was a bit
16 back, in 1982. Besides education, you have to have your
17 13 years of minimum experience to get to your senior
18 consulting level.

19 Q. How long have you worked for PG&E?

20 A. Twenty-nine years and two months.

21 Q. Could you walk us through your, your career
22 with PG&E, please.

23 A. I started PG&E back in 2000 as a senior
24 engineer in the nuclear energy service, which is
25 supporting the Diablo Canyon Nuclear Power Plant. I can
26 -- so it's been, it's been 20 years in the Transmission

1 and Substation Department.

2 Q. I'll draw your attention to Exhibit 1247. It's
3 up there on the board. Do you -- it's also up on the
4 table. Do you recall the part of a T-line Structures
5 Committee back in 2009, 2010?

6 A. Yes. I was called to attend a committee,
7 structure committee meeting around that time.

8 Q. Okay. What can you tell us about the T-line
9 Structures Committee?

10 A. I think they formed the committee to kind of go
11 over some of the T-line, the mainly maintenance program
12 requirements, and some of the stuff that's relating,
13 because we had a lot of issue with these big tower
14 foundation, the towers around the San Francisco Bay,
15 which has a lot of corrosion issue.

16 Q. Uh-huh.

17 A. So -- and that committee was mainly focusing on
18 how to tackle the maintenance issues of those towers.

19 Q. All right. So looks like there are several
20 subcommittees here. And the first one says, "Finalize
21 and implement detailed tower inspection proposal." It
22 looks like you're one of the people who are assigned to
23 that subcommittee. Do you recall?

24 A. I don't have much recollection on that. I
25 remember we went to, you know, Asset Strategy
26 Department's office for a, for a short meeting. And

1 afterwards I think this was what come out of it. But I
2 don't recall, you know, whether or not we generate those
3 reports or not.

4 Q. All right. Then there's also one on there,
5 "Create a guide for tower inspections"?

6 A. Uh-huh.

7 Q. Do you remember creating a guide for tower
8 inspections?

9 A. In numerous occasion, I participate in putting
10 in input on these what are called TP, T --

11 Q. *ETPM*?

12 A. *ETPM Manual*. So *ETPM* stands for *Electric*
13 *Transmission* --

14 Q. -- *Preventative* --

15 A. -- *Preventive Maintenance* program. So the
16 attributes in the tower, the inspection, part of that
17 manual I think they wanted engineer to provide input on
18 that. So I did provide input to that *ETPM Manual*.

19 Q. All right. Then it says -- well, there's
20 another committee in there. They're "Define and
21 implement a structure rehabilitation." Looks like you
22 were part of that.

23 And "Review draft Quanta Component Strategy
24 Reports." What can you tell us about that?

25 A. Again, the *ETPM Manual* input along these -- I
26 really do not recall what I, what I contributed to.

1 Q. Why would you be involved in a program to do a
2 detailed tower inspection proposal?

3 A. Because I was a civil engineer. I'm
4 responsible for the structural integrity of towers and
5 foundations.

6 Q. Same question, why would you be involved in
7 creating a guide for tower inspections?

8 A. Well, I think a lot of times we have to make
9 the call when they find anomalies. They have to seek our
10 opinion or, you know, certain things that warrant
11 immediate replacement, or we can defer that until later
12 date.

13 Q. Okay. Clarify. Was this committee looking at
14 all towers or just at the Bay towers?

15 A. I think it started out with the Bay tower
16 because there was some issue with those towers, but I
17 think it's kind of getting into other issues. Like on
18 that bottom right-hand corner, became topic of the
19 grillage foundation, which is a tower steel foundation,
20 no concrete protection, which is buried in the ground.
21 Some of the, that there's some concern about the, after
22 being buried in the ground for so many years, you know,
23 do we need to assess the condition?

24

25 (Grand Jury Exhibit 1257 introduced.)

26

1 Q. All right. Let's move on to 1257. And what
2 was your assignment within PG&E on December 21st, 2012?

3 A. My assignment? You mean my --

4 Q. Your job.

5 A. Same function.

6 Q. Okay. In December of 2012, did you get
7 assigned to assist with a project on the Caribou-Palermo
8 line in the Feather River Canyon?

9 A. Yes. I was called close to pretty late at
10 night to go out and look at, you know, some failure on
11 that line.

12 Q. Okay. And this, 1257, is a string of emails.
13 And you should have the string right there in front of
14 you.

15 All right. Bring up the emails themselves.
16 And it looks like here the first time you're mentioned is
17 in an email from (EMPLOYEE #3) on Saturday, December
18 22nd, at 6:00 p.m. And this email is addressed -- or
19 CC'd, you're one of the persons to have been CC'd;
20 correct?

21 A. That's correct.

22 Q. It says, "Bob Daniels is working on getting
23 some additional civil engineering help in to Table
24 Mountain tomorrow to support (WITNESS #12)."

25 So would that be you?

26 A. It would be me, yes.

1 Q. All right. So explain to us what happened and
2 why you were getting pulled up here to deal with it?

3 A. Well, after a failure, civil engineering would
4 get called to the site to look at the failure condition
5 and make an assessment to find out the root cause and if
6 there's a way we can, you know, mitigate that for that
7 particular instance, and also some lessons learned for
8 future potential failure.

9 Q. All right. So did you actually come up here?

10 A. Yes. I went up there, I think, that night.
11 The next morning, actually. Close to 5:00 o'clock,
12 something like that.

13

14 (Grand Jury Exhibit 1258 introduced.)

15

16 Q. All right. Let's move on to 1258. This is an
17 email string. And we always start from the end of the
18 email string.

19 All right. So this is some emails that start
20 up on Friday afternoon. Do you know who (WITNESS #5) is?

21 A. He was the -- I think in 2000 -- back, see, he
22 has different roles over time. He was at one point a
23 General Construction tower supervisor. Later on he
24 became a, what we call EMC, Engineer Maintenance and
25 Construction, engineer. So I don't recall in 2012 what
26 role he was playing exactly.

1 Q. Okay. So he sends out an email on December
2 21st, 2012, at 3:39 p.m. that's addressed to yourself,
3 somebody named Peter Ng. Can you tell us what Peter Ng
4 is?

5 A. Peter Ng was my supervisor at the time.

6 Q. Sergio Chung?

7 A. He was one of the lead T-line engineer.

8 Q. Randy Kihara?

9 A. He's also in the same row, T-line engineer.

10 Q. Email says, "Not sure if any of you are around,
11 but I got just a report of towers down on 23/191 on the
12 above line, so I'm sure T-line Maintenance will be
13 needing assistance. Contact is (WITNESS #12), and it's
14 an area that requires a snow cat."

15 Is that how you got notified of the collapse of
16 the towers on the Caribou-Palermo?

17 A. I'm not sure if the email was the first
18 notification like that, or it was a phone call from Peter
19 Ng at the time. So --

20 Q. All right. So the next email in line, Randy
21 Kihara, and it's talking about somebody named Fanuel
22 Aberra and Tony Lau. Can you tell us who those people
23 are?

24 A. Same; Fanuel Aberra is a T-line engineer. He
25 works out of the Sacramento office. And Tony Lau is one
26 of our civil engineers in the group.

1 Q. Okay. And it says, "Henry is on vacation for
2 the remainder of the year."

3 Were you on vacation?

4 A. I was on vacation, yes.

5 Q. Did you come back from vacation to deal with
6 this problem?

7 A. Yes. Unfortunately, yes.

8 Q. All right. And then we got emails from Fanuel
9 and Peter. And now it looks like your first email is
10 sent on Sunday, December 23rd, at 2:13 p.m.; is that
11 correct?

12 A. Yes.

13 Q. And can you read us your email.

14 A. You want me to read it?

15 Q. Yeah. Sure.

16 A. Okay. "So we went up to the tower sites and
17 looked at the two towers, 186 and 192, at the ends.
18 First order of business is to install anchors to hold the
19 conductors in place without trying to re-plumb the bells.

20 GC Tower will try to use Stingray, slash, Manta
21 Ray anchors about 200 feet back span from tower 192, as
22 it appears to be a soil site. At the other end, tower
23 196, rock anchor will be used to hold the conductors at a
24 point close to the collapsed tower, 187, and next to the
25 access road.

26 The immediate restoration plan is to set up

1 wood shoo-fly poles at selected locations after
2 Christmas.

3 Chuck Stinnett indicates that he will take the
4 lead to find an estimator, either call Chris Guranis,
5 Guranis (phonetic), or get Jeff Lockwood back from
6 vacation to put the shoo-fly together."

7 Q. Okay. So by the 23rd you've already been up
8 and taken a look at this collapse?

9 A. Yes.

10 Q. And you're specifically, at this point,
11 focusing in on the two end towers that are still
12 standing --

13 A. Uh-huh.

14 Q. -- opposed to the collapsed?

15 A. That's correct. Because we need to stabilize
16 these end towers, make sure that chain reaction doesn't
17 go beyond the end towers.

18 Q. Okay. Now we'll get to some of that in a
19 minute.

20

21 (Grand Jury Exhibit 1255 introduced.)

22

23 Q. All right. So next up, I'm showing you what's
24 marked as 1255. Exhibit 1255. Do you recognize Exhibit
25 1255?

26 A. That is my handwriting.

1 Q. That's your handwriting?

2 A. Yes.

3 Q. What is Exhibit 1255?

4 A. So this is an attempt to explain -- I have, I
5 have a, kind of a meeting with my group after the
6 failure, kind of explained to them what I speculated as
7 to the root cause of the failure.

8

9 (Grand Jury Exhibit 1256 introduced.)

10

11 Q. All right. And 1256, what is 1256?

12 A. This is another illustration of -- you know,
13 this is -- the top part of that document is a horizontal,
14 you know, plane view of the line of alignment. And the
15 bottom part of the exhibit is elevation view showing, you
16 know, in relation to the terrain how tall these towers
17 are and how far they are situated apart.

18 Q. All right. So this is actually the different
19 ridges along the tower line; correct?

20 A. That is correct.

21 Q. And each number represents, or X represents the
22 location of a tower?

23 A. Yes.

24 Q. So all the towers are located, looks like, on
25 peaks?

26 A. Yes. That is ideal location for a transmission

1 line.

2 Q. And the towers that went down were 87 through
3 91; is that correct?

4 A. Didn't I have some crosses -- that is correct.

5 Q. All right. And then this, the top half, can
6 you explain again a little bit better what this is.

7 A. That is an alignment of the line in plane view.
8 That shows you what line angle the line is turning. So a
9 transmission line, we have angle tower and transmission
10 tower and suspension tower. Suspension towers is taking
11 the load of the conductor. Angle tower has to take that
12 as well as the conductor line tension.

13 Q. All right. All right. Next up, 1258. And
14 this is similar to the email chain we looked at before,
15 but at the top there's an email from you to somebody
16 named Amin Ezial?

17 A. Uh-huh.

18 Q. Who is Amin Ezial?

19 A. He is a pretty experienced T-line designer.

20 Q. Okay. It starts off with Ezial sending you an
21 email that says, "I am attaching some drawings that may
22 provide some information to repair the line. Structure
23 Data Sheet Drawing. Tower type, SA erection drawing,
24 loading diagram. Tower type SA-H, drawing."

25 So can you explain to us what those drawings
26 are that he's sending to you.

1 A. Those, I believe, were the outlined diagrams of
2 the tower showing the makeup of these towers. Basically
3 showing the configurations of the failed towers.

4

5 (Grand Jury Exhibit 1259 introduced.)

6

7 Q. Okay. Next we're going to move on to 1259.
8 There's three pages for 1259.

9 All right. So there's 1259, three pages. And
10 is Exhibit 1259, are those the diagrams that you're
11 talking about that Ezial, Amin Ezial was sending to you?

12 A. Yes, I believe so.

13 Q. So explain to us what these diagrams are in
14 1259 and why they would be important to you.

15 A. The first diagram is a depiction of the stop
16 angle as buried in the ground. This is what's holding up
17 the tower in the ground. So, as I alluded earlier on,
18 some of the older towers do not have concrete encasements
19 to protect the steel portion below grade. And there are
20 a bunch of structural angles. And at the bottom of the
21 angle, we have a set of what we call the "grillage."
22 That's to, that's to provide the bearing resistance
23 against a tower leg being lifted up in case there's
24 loading that produces tension on that leg. This is what
25 we call a "direct buried grillage anchor."

26 Q. All right. Second page.

1 A. This is just a set of tower extension.
2 Different terrain, depending on the height we need how to
3 go up to, these are the additional extensions to the base
4 tower that we need to add to to make up for the height so
5 that there's conductors at the optimum height but provide
6 enough ground clearance to the surrounding.

7 Q. And page 3?

8 A. Page 3 I think this is a, a transmission
9 transposition arm for one of the SA towers. Standard
10 detail. It depicts how that arm is made up of.

11 Q. All right. So this is, this is what you're
12 being sent when you're up here in December of 2012
13 looking at, looking at these towers to figure out what
14 went wrong?

15 A. That is correct.

16 Q. All right. So I want to go back and point out
17 down there in the bottom lower right corner of page 1,
18 there's a date. Can you read us that date?

19 A. It is January 22nd, 1920.

20 Q. Okay. Then on page 2?

21 A. Same thing.

22 Q. And page 3?

23 A. This is February 2nd, 1921.

24 Q. All right. So these were documents that you
25 were provided to use in your investigation of what caused
26 the towers to fall down?

1 A. That's one of the, one of the documents, yes.

2

3 (Grand Jury Exhibit 1260 introduced.)

4

5 Q. Okay.

6

7 All right. Now, moving on 1260. Some more
8 emails. Do you know what -- well, go ahead, tell us what
9 this is.

10 A. I'm sorry, it's not quite clear.

11 Q. Yeah.

12 MS. DUPRE-TOKOS: Mr. Ho, there should be a
13 hard copy in that little stack on the desk.

14 THE WITNESS: Oh, okay.

15 MS. DUPRE-TOKOS: That might be easier.

16 THE WITNESS: Thank you. My eyes not that
17 good.

18 This is in the order of you just showed these?

19 Q. (By MR. NOEL) Yes, should be in order.

20 A. All right. I have it.

21 Q. All right.

22 A. Okay. This was an email that Amin sent me
23 after that first email we talked about. So we still in
24 the process of finding the exact drawings that pertinent
25 to the failed towers.

26 Q. Okay. Were you ever provided with specific
drawings of the specific towers you were looking at?

1 A. Yes and no. These are very old lines. We
2 don't have a lot of good records on them. So a lot of
3 times we have to go, actually go to the tower, measure
4 the tower legs and kind of do some verification.

5 Q. Yeah. All right. So what is an SDS?

6 A. It's a Structure Data Sheet.

7 Q. That's what we're talking about then?

8 A. Right.

9 Q. Okay. So these -- it goes on. This line was,
10 the plan maps were produced in the early 1920s, by Great
11 Western Power Company?

12 A. Yes.

13

14 (Grand Jury Exhibit 1261 introduced.)

15

16 Q. All right. Let's move on to 1261. What is
17 1261?

18 A. This looks to be a very old copy of a, may have
19 been original line, because the, as you can see, the
20 tower number may not be even matching up with the, what
21 we have been discussion. So also the name. The line is
22 called "Caribou Butte." So they -- we do not show
23 whether this pertains to the failed segment or not. We
24 just have based on what he can put his hands on, you
25 know, everything.

26 Q. Okay. So this is another piece of historical

1 record that was being sent to you?

2 A. Yes.

3

4 (Grand Jury Exhibit 1262 introduced.)

5

6 Q. All right. At 1262, some more emails. Do you
7 have 1262 there in front of you?

8 A. Yes.

9 Q. First off, you've got food poisoning?

10 A. I guess so. I don't recall, but I guess must
11 have.

12 Q. All right. And you got to go for a helicopter
13 ride?

14 A. Yes.

15 Q. And what was the purpose of the helicopter
16 ride?

17 A. I think this is the trip that we took with
18 Fanuel Aberra and Chuck Stinnett, if I recall. So that
19 trip was meant to, after everything stabilized, the end
20 towers were anchored properly. So we go up there and see
21 if we could retrace the failure chain to see if we can
22 find out the root cause of the failure.

23 Q. All right. Were you able to figure out what
24 went wrong?

25 A. I had some suspicion, but -- you know -- but I
26 think the very first exhibit, that, the sketch that you

1 show, was --

2 Q. Right.

3 A. -- was one of the pieces of document we put
4 together to try to explain what happened and what might
5 have been root cause? I think you have one of the email
6 that I sent to (EMPLOYEE #3).

7 Q. Okay. Well, let's go back to 1262. In your
8 email on January 4th, you say, "I think the mini tower
9 cascading started at the angled tower 188, where the line
10 turns 42 degrees. There was evidence of foundation
11 pullout on the tension legs that may have caused the
12 toppling of the tower. When the tower toppled over, it
13 hit a big boulder nearby and resulted in broken crossarm
14 conductors that unzipped in both directions. I've put
15 together a recon report Chuck requested today."

16 Can you explain to us what that paragraph
17 means.

18 A. So this is kind of a quick summary to my
19 supervisor after the trip as to what may have caused that
20 chain failure of these five or six towers.

21

22 (Grand Jury Exhibit 1263 introduced.)

23

24 Q. All right. Then 1263. What is 1263?

25 A. So this is the email I sent to the whole team,
26 including Chuck Stinnett, that there was a probable cause

1 of the failure.

2 Q. So what did you determine was the cause of the
3 failure that took out five towers on the Caribou-Palermo
4 in December of 2012?

5 A. So, as I alluded earlier on, towers of
6 different types, the suspension towers take only the dead
7 weight of the conductor, but the angle tower, in addition
8 to having to take the dead weight of the conductor, they
9 also have to take the tension from the conductor. And
10 the loading is a lot more severe in those cases.

11 So I think, based on the failure that I
12 observed on the ground, that there was a, probably some
13 unusually high loading that pulled a tower leg out. As
14 you recall, the anchor to rock, the soil anchor that was
15 depicted in one of the sketches, they're nothing but a
16 steel angle with some grillage in the bottom. And --
17 but, you know, it's been -- it had been performing
18 satisfactorily for the last 80, 90 years. But reportedly
19 during the wind storm, snow storm, there was ice
20 accumulated on the conductor. And if you ever hold a
21 rubber band with your finger, you put something in
22 between, like somebody pull on that, the rubber band, you
23 will feel it tug, additional tug from the rubber band.
24 This was exactly what happened. There is probably snow
25 on the wire that's creating additional tension that
26 pulled that angle tower.

1 Also, that is designed value. So the
2 foundation had been pulled out of the ground and
3 resulting in overall toppling of that, the tower. When
4 the tower hit the boulder around that area, likely the
5 conductor also hit the rock. When these aluminum
6 conductor hit the rock, it -- they're aluminum built,
7 built to be soft, so it could have severed. Then, when
8 you have a regular transmission line going to, straight
9 across, everything's well balanced, but if you cut the
10 wire between two of these towers, they have very high
11 unbalanced load going into opposite directions.

12 So that is what causing the additional, or
13 cascade failure which essentially is like a domino going
14 in the two different directions. So there was three
15 towers down in one direction, and one tower down in the
16 other direction in addition to the tower that failed.

17 Q. Other than this email to Eric Back, Exhibit No.
18 1263, is there any root cause analysis of that tower
19 failure?

20 A. To my knowledge, that's the only one.

21 Q. Why was there no root cause analysis in a
22 report done of this tower failure?

23 A. I'm not, I'm not sure.

24 Q. Like, for instance, are you familiar with the
25 tower failure at Moss Landing in 2015?

26 A. Yes.

1 Q. And were you involved in that?

2 A. I was down there, yes.

3 Q. How many hundreds of pages were devoted to the
4 root cause of that tower failure?

5 A. What initially the failure a little different,
6 because what happened -- well, this line is serving only,
7 you know, Caribou Powerhouse and some, you know, small
8 generators, I believe. But in that Moss Landing failure
9 that you allude to, it caused a whole Monterey peninsula
10 to go into an outage. Literally we lost about, I think,
11 I think over a hundred thousand people. So that was a
12 much more impactful event, if you would.

13 Q. So, in other words, how much time and energy
14 you put into a root cause analysis depends upon how
15 important the line is?

16 A. Well, the thing is depends on the impact of
17 outage.

18 Q. Right.

19 A. And I think that's the point.

20 Q. The impact of the outage goes to reliability;
21 correct?

22 A. Yes.

23 Q. And reliability is what the regulators look at
24 to address the company; correct?

25 A. It's one of the parameters.

26 Q. So Caribou-Palermo line falls down, nobody

1 really cares because nobody's really out of power?

2 A. Well, I wouldn't say nobody cares, but, you
3 know, it's just the, there's a local maintenance
4 organization handling the failure. It's not like, you
5 know, there was a larger area, more than a hundred
6 thousand customers, affected. You know, that's a much
7 bigger event than Caribou-Palermo, in that sense.

8 Q. Right. But, in the other sense,
9 Caribou-Palermo was five towers falling down --

10 A. Yes.

11 Q. -- and Moss Landing was one tower breaking
12 because of human error; correct?

13 A. Well, human error and also I think the quality
14 of steel may be in question as well.

15 Q. Okay. Are towers supposed to collapse under
16 load?

17 A. I hope not.

18

19 (Grand Jury Exhibit 1264 introduced.)

20

21 Q. So -- all right. 1264. Do you recognize the
22 photograph marked as 1264?

23 A. Yes.

24 Q. What is 1264?

25 A. That's one of the pictures I took on the failed
26 tower stub.

1 Q. And you can always get up and move around and
2 use the board.

3 A. Okay.

4 Q. Can you explain to us what we're looking at
5 here.

6 A. This, I believe, is one of the stub
7 compression. So the two tower, tower legs -- the tower
8 failed in the transverse direction. The two tower legs
9 in tension and two tower legs in compression. This is
10 one of the compression legs that will kind of just, when
11 the tower toppled over, rotated about that, that point,
12 and just snap off like that.

13 Q. All right. So the tower feet that were in
14 compression, would those be the downhill side of the
15 tower?

16 A. That would be the legs that are closest to the
17 edge of the cliff.

18 Q. Okay. So, so what we're looking at here is the
19 tower is standing like this, straight up and down, and
20 now it's fallen over here --

21 A. Yes.

22 Q. -- correct?

23

24 (Grand Jury Exhibit 1265 introduced.)

25

26 Q. All right. 1265. What are we looking at?

1 A. There's also -- this is the, may have been the
2 same leg, just panned out a little bit, or the other
3 compression leg. So just rotated about this point as
4 opposed to laying on that thing. You have some pictures
5 that show the tension leg drastically different in terms
6 of the failure mode.

7
8 (Grand Jury Exhibit 1266 introduced.)
9

10 Q. There's 1266.

11 A. That's one of the two tension legs. As you can
12 see, this was the, this was the ground line. The stubs
13 were buried right around here. Because, as evident from
14 the subsequent paint they put on the tower leg. So this
15 stub had been pulled out of the ground. And --

16 Q. Now you can write on it.

17 A. -- in addition to that, the connection between
18 the tower leg and the stub also got sheared off. And
19 that tells me is significant overload on that design at
20 that point of that connection.

21 Q. All right. Go back so we have a good record,
22 because she's taking down everything we're talking about,
23 to make sure.

24 A. Okay.

25 Q. So we're looking at the three metal angle irons
26 that are sticking up out of the ground; correct?

1 A. That's correct.

2 Q. And when you were talking about the, where the
3 ground line is, that, that would be where the green paint
4 ends and the bare metal. So putting red lines across
5 there all the way.

6 A. That is correct.

7 Q. So that should have been ground level?

8 A. That's right.

9 Q. So all of the silver stuff should be buried
10 underneath the ground?

11 A. Right.

12 Q. Everything above, in the green, should be above
13 ground?

14 A. Correct.

15 Q. And what's going on up here at the top where
16 the -- is this the -- looks to me like it's folded over
17 or --

18 A. Yeah. This is the tower stub at the top.
19 Well, the tower leg at the top. This used to be
20 connecting to these three, these three tower stubs, which
21 forms like a tripod in the ground.

22 Q. All right. So we've got to put our red lines
23 back up here.

24 And so are these metal pieces broken off or
25 just pulled off? Supposed to be nuts and bolts there?

26 A. They had connection. These are the bolts that

1 used to be connectors. You can see the outline of that
2 top part of the stub. These would be bolt holes where
3 the tower legs are connected to.

4 Q. Okay.

5 A. Sheared off.

6 Q. Sheared off or came undone?

7 A. Sheared off.

8 Q. So actually cut, metal on metal, just --

9 A. Almost like have a knife, just cut through that
10 bolt, shear.

11

12 (Grand Jury Exhibit 1267 introduced.)

13

14 Q. All right. Okay. Let's move on to 1267.

15 All right. Now we can move on to 1267. Will
16 you tell me what we're looking at in 1267.

17 A. This is, this is a picture of the other tension
18 leg. So in a way they're similar. See portions of that
19 stub pulled out of the ground, and also the connection to
20 the leg also severed.

21 Q. I know I asked you this before, but that's not
22 supposed to happen; right?

23 A. No, that's not supposed to happen.

24

25 (Grand Jury Exhibit 1268 introduced.)

26

1 Q. Next up, 1268. If you can tell us what 1268
2 is.

3 A. This is the email from Mr. (WITNESS #5). I
4 think this is (WITNESS #5's) response to my email. It
5 was copied on that email I sent to (EMPLOYEE #3)
6 regarding speculated root cause of the failure.

7 Q. Okay.

8 A. So apparently he's in agreement.

9 Q. All right. So rock slides had nothing to do
10 with the towers collapsing; right?

11 A. I wouldn't completely rule that out, but I did
12 not see any large boulder big enough that would cause
13 that kind of failure when I was at the site.

14 Q. Did you see any damage to the towers themselves
15 that would have been caused by the collision with rocks?

16 A. I don't know. You know, my -- I would stick to
17 my, the root cause I came up with.

18 Q. Right. Any idea why the people of the Table
19 Mountain center would think that this was caused by a
20 rock slide?

21 A. Well, along Highway 70 we have a lot of rock
22 slides all the time. Actually, Cal Trans have to come
23 over, come through that Highway 70 every morning to do a
24 sweep on rock that had fallen the night before. So it's
25 not uncommon that you would say, "Well, there's rock
26 slides maybe." And we do have towers here and there that

1 got hit by rock so we replace and repair.

2 Q. All right. At the end of your email of January
3 4th, you say, "Due to this failure phenomenon, it would
4 be advisable to inspect towers with similar line angle on
5 this line to ensure no other foundations had experienced
6 similar uplift during same wind storm"?

7 A. Yes.

8 Q. What does that mean?

9 A. That means I'm advising the folks in that
10 email, in particular (EMPLOYEE #3), to follow up on this
11 particular failure to see if elsewhere in the, along that
12 same line, especially with the angle tower that actually
13 have the big V's, on the severe loading, whether or not
14 they observed similar pull-up of that stub. Because if
15 maybe, you know, the stubs are in the process of being
16 pulled out and may escalate into a similar failure in the
17 future.

18 Q. To your knowledge, were any such inspections
19 ever done?

20 A. I'm not aware it was done.

21

22 (Grand Jury Exhibit 1269 introduced.)

23

24 Q. All right. And then 1269. You should have
25 that right there in front of you.

26 A. Okay.

1 Q. Okay. What is 1269?

2 A. So this is May 13, so I think we -- it was
3 decided that the five failed tower would be replaced by
4 tubular H frame, meaning these are going to be -- instead
5 of lattice tower, they will be tubeless steel pole with
6 horizontal arms on them. So a little different tower
7 type. And we had to go through quite a bit of iteration
8 because in the beginning National Forest wouldn't let us
9 go back with the lattice tower because they said this is
10 historic in nature. We had to go back in kind, replace
11 these towers with lattice tower. So it went through
12 quite a bit of iteration. I think it was finally decided
13 that we were going with a much better structure, the
14 tubular H frame.

15 Q. Am I hearing you right that the National Forest
16 Service didn't want you to replace the Caribou-Palermo
17 towers with new, modern towers because the towers were
18 historical?

19 A. Well, this was the original opinion, at least
20 from our land people. The land people, they coordinate
21 with different agencies to go through environmental
22 permits and stuff to, so that, you know, whatever is
23 proposed will be accepted by an agent, various agencies.
24 This is what I heard in the beginning, where we want to
25 go back to the lattice tower, kind of replace them in
26 kind. It was not perceived positively.

1 Q. All right. Why did it take so long to replace
2 these towers?

3 A. I'm not sure. I cannot pinpoint a cause,
4 but --

5
6 (Grand Jury 837 introduced.)
7

8 Q. All right. 837. It's hard to read up there.
9 I forgot to pull that. We're dealing with, some of this
10 stuff, copies of copies of copies of copies.

11 A. I can see it from this copy. This is the one,
12 right?

13 Q. No.

14 A. Nope? I don't have that copy.

15 Q. Madam Clerk has it for you.

16 A. Thank you.

17 Q. You remember the email, Exhibit 837?

18 A. I think you were the one who brought to my
19 attention when we first met.

20 Q. So we're talking about the Jefferson Hillsdale
21 line here; correct?

22 A. Yes.

23 Q. Specifically wear around hanger holes?

24 A. Jefferson Hillsdale is an opinion. I believe
25 Jefferson substation is somewhere south of San Francisco.
26 Hillsdale was where the Hillsdale mall is, around San

1 Mateo bridge.

2 Q. So this email, Michael Baday (phonetic) is
3 saying, we found some worn hanger plates and sent some
4 pictures of them; correct?

5 A. Yes.

6 Q. And wants to know what to do?

7 A. Yes.

8 Q. And what, what's he advised?

9 A. I think the advice is to change it in kind.

10 Q. So why isn't a bigger deal being made of these
11 worn hanger holes?

12 A. 2011, that was -- my experience, that's the
13 first incident of these C-hook hanger plate wore out
14 issue that I encountered myself.

15 Q. That you encountered yourself?

16 A. Yes.

17 Q. All right. Were you aware that in 1987 the
18 hooks were taken off at hanger holes; key holing and the
19 wear on the hooks?

20 A. No, I wasn't aware of that. I was dealing with
21 nuclear energy service at the time.

22 Q. So if this is the first time that you're
23 hearing about this issue, why isn't this a lot bigger
24 issue being made of it?

25 A. Well, it was brought to my supervisors's
26 attention. So at the time, this was 2011, I just joined

1 the Transmission Line group. So --

2 Q. Is this type of wear normal?

3 A. I would imagine in the high wind area that, you
4 know, this insulator move up back and forth a lot. I
5 would imagine that would be -- you know, that kind of
6 wear would be usual, usual occurrence.

7 Q. Are you familiar with the concept of
8 body-on-body wear?

9 A. Yes.

10 Q. And note that anytime you have two bodies
11 rubbing, they're going to wear; correct?

12 A. Yes. Yes.

13 Q. And that is a known phenomenon in engineering?

14 A. That is actually a known, known issue with
15 Transmission Line, because we have seen, now seen some of
16 the utilities that created a sleeve in that, in that
17 hanger plate to address that wear issue. What it is is a
18 doughnut they put into that hole and so the C-hook will
19 have less chance of wearing out that hanger hole.

20 Q. So who is doing that?

21 A. Well, I've seen pictures of it. After the Camp
22 Fire --

23 Q. Okay.

24 A. -- they started looking at, you know, what are
25 the possible mitigation for a C-hook versus hanger plate
26 failure. And they came across this other utilities they

1 have these doughnut they put in there.

2 Q. So the ultimate question is, as an engineer in
3 the Transmission Line Division, is why is nobody looking
4 for that wear prior to the Camp Fire?

5 A. That I don't know.

6 Q. You expect when you have two pieces of metal
7 rubbing up against each other that there's going to be
8 wear; correct?

9 A. Yes.

10 Q. As somebody said earlier, that's why we put oil
11 in our cars; right?

12 A. Yes.

13 Q. So why is nobody looking for that kind of wear?

14 A. I don't have an answer to that. Sorry.

15 Q. As an engineer, as someone who is trained, how
16 -- you know -- how do you allow this to happen? That --
17 not you. I mean "you" in a global sense.

18 A. Right. So you realize that the engineering, we
19 evaluate the, technically how things work and how we
20 should, you know, mitigate certain things, but the
21 ultimate decision does not rest on us. A lot of
22 recommendations are put forth, you know. That's really
23 the end of our responsibility.

24 Q. Who makes the ultimate decisions?

25 A. I would say the first organization would be
26 Asset Strategy, because these are really the asset, but,

1 you know, ultimately I think somebody higher up maybe
2 need to make it, need to make that kind of decision.

3 Q. What part, to you, in your experience, does
4 reliability or the importance of a line play in that
5 decision?

6 A. That's part of the design. We want to make
7 sure that whatever we put forth will be safe; will, you
8 know, will last a long time; and easy to maintain those,
9 are kind of the parameters that we put forth in our
10 design.

11 MR. NOEL: Anything else?

12 MS. DUPRE-TOKOS: You have one more exhibit.

13

14 (Grand Jury Exhibit 1270 introduced.)

15

16 MR. NOEL: I do have one more exhibit, 1270. I
17 thought I was done.

18 Q. (By MR. NOEL) All right. Do you have Exhibit
19 No. 1270 there in front of you?

20 A. Yes.

21 Q. Can you tell me what 1270 is?

22 A. It is an email I sent to Mukul, who is the
23 supervisor for Asset Strategy Group. We found out that
24 there was a tower, upper part of the tower, is distorted.
25 There was some member bank we needed to replace that top
26 part of the tower. But it's been kind of a longstanding

1 accounting procedure that we have to replace entire tower
2 before it becomes, we can capitalize that job.

3 Q. Right.

4 A. So this is only a partial replacement, so
5 that's why I ask Mukul to see if we can capitalize that
6 particular replacement job.

7 Q. All right. So this, is this happening in
8 October of 2018 --

9 A. Yes.

10 Q. -- correct?

11 A. Yes.

12 Q. And this replacement is what would generally be
13 an Expense job; right?

14 A. Yes. Part of the structure, yes.

15 Q. And was there Expense money available to do
16 this necessary repair?

17 A. Well, typically Expense dollars is a little
18 harder to come by.

19 Q. Yeah.

20 A. Yeah. So that's why I asked his opinion on
21 that.

22 Q. "So I understand Asset Strategy has been
23 working on a new way to define unit of Capital to make it
24 easier to capitalize a partial replacement on tower
25 sections."

26 Am I reading that correctly?

1 A. That is correct.

2 Q. So basically from where are you hearing this?

3 A. From where on this capitalization of a
4 certain --

5 Q. Yes. This information that you understand at
6 Asset Strategy. Where are you getting that information?

7 A. I can't pinpoint where, but, you know, it's
8 been kind of a, I wouldn't say common knowledge, but
9 every time we replace part of a structure, it would be
10 Expense.

11 Q. Okay. And that's what I'm trying to get at, is
12 you're talking to Mukul and saying, "Hey, I understand
13 you're working on, on a policy to change the definition
14 of Capital so we can charge these partial replacements to
15 Capital instead of Expense"?

16 A. Yes.

17 Q. But my question is, where are you getting the
18 information that makes you think that, that this policy
19 is underway or under consideration?

20 A. It's kind of a known fact, you know, in our
21 department, so I can't pinpoint exactly where or who I
22 heard it from.

23 Q. Okay. So basically what you're hearing is
24 "we're going to take these Expense projects and turn them
25 into Capital projects"?

26 A. That's the intent of it.

1 MR. NOEL: Anything else?

2 The jurors get the opportunity to ask
3 questions. They write them down and submit them to us.
4 It looks like they have a few questions. We'll review
5 them, finish up in a second.

6 (Counsel and Grand Jury Foreperson confer.)

7 Q. (By MR. NOEL) In your opinion, should the
8 failure of five towers on the Caribou-Palermo line in
9 2012 have raised issues of deteriorating infrastructure
10 along the entire Caribou-Palermo line?

11 A. That was a very unusual failure, you know, in
12 terms of loading. So I think the focus was on why there
13 was such a gross overloading of the tower instead of the
14 conditions of these, you know, older asset. So that
15 wasn't, there wasn't a primary focus of the restoration
16 as far as -- and also the team was looking for more of a
17 root cause to see if we can mitigate future failure of
18 that same region.

19 Q. Speaking of that, you knew this was a very old
20 line; correct?

21 A. Yes.

22 Q. While you were looking at these -- well, let me
23 back up a bit.

24 Have you ever heard of the Deteriorating
25 Transmission Assets Replacement Project, or Program?

26 A. Yes.

1 Q. And what was that?

2 A. Well, we currently have a little more
3 comprehensive program for Tower Replacement Program.
4 Essentially, we are looking at the whole system to see
5 which line warrants replacement. We try to prioritize
6 these older lines to start replacing them over time. So
7 we know that these are older assets, we try to catch up
8 with that, that degradation curve, if you would, try to
9 replace this line before, before the failure.

10 Q. Is priority based upon density, population
11 density, in the area?

12 A. That's one of the attributes, I believe. The
13 other attributes would be age, exposure, and also the,
14 you know, I think the capacity of these towers, if we
15 know where weaker towers are.

16 Q. Well, were you aware that in 2007 the
17 Caribou-Palermo line, a portion of it, was nominated for
18 replacement under the Deteriorated Asset, Transmission
19 Asset Replacement Program?

20 A. 2007?

21 Q. Yes.

22 A. Was it that walk down we had with Chuck
23 Stinnett that we went up to this relatively inaccessible
24 tower segment?

25 Q. That very well could be.

26 A. That was the concern that maintenance could not

1 get to it.

2 Q. Right.

3 A. So we don't really know the conditions of that
4 unless we use helicopter to fly people in.

5 Q. Right.

6 A. So that was the concern. We haven't looked at
7 these towers for a long time, so let's look at it to see
8 if it warrants replacement.

9 Q. Were you aware in 2009 that the project manager
10 on that, (WITNESS #15), predicted that towers would fall
11 off into the canyon?

12 A. I'm not aware of that.

13 Q. At the time of this failure, did you consider
14 that the 80- and 90-year-old age of this line make any
15 significant -- made any significant contribution to the
16 failure?

17 A. To -- in this particular failure --

18 Q. Right.

19 A. -- back in two thousand -- again, you know,
20 based on what I observed at the site of that tower that
21 toppled over, age may not play into, in the root cause,
22 because, as you can see from some of the pictures, the
23 section that pulled out of the ground, it still has the
24 original galvanizing. So that tells me -- most of the
25 concern of these direct buried grillage towers are the
26 conditions of the various steel. For instance, this

1 post. You bury a piece of steel in the ground,
2 invariably they will get corroded. But the section that
3 got pulled out, they seemed to be in very good condition.
4 So --

5 Q. So it seemed that at least the base of these
6 towers there was in pretty good condition; right?

7 A. Actually, that's an area of most concern,
8 because, you know, without taking it out, you really do
9 not know what conditions they were in.

10 Q. I was going to show you another picture, but
11 doesn't look like I can find it.

12 A. Actually, a lot of these direct buried grillage
13 tower lines, there are a couple of priorities. That's
14 just an area of our main concern.

15 Q. Now, right?

16 A. Yeah.

17 Q. Post-Camp Fire?

18 A. Well, it's been a longstanding concern, because
19 we can't see it, how do you know the condition? If we
20 have concrete cap in the ground, and then I think our
21 concern level will ease a bit.

22 Q. Concern by engineers like yourself?

23 A. Yes.

24 Q. Then why was nothing ever done about it?

25 A. That's why this program, to address those
26 concerns. And, you know, above ground you can see the

1 tower condition. You can assess it. What's in the
2 ground, buried deep, we really cannot tell. So that's
3 why we don't know, you have to, you know, voice your
4 concern.

5 Q. Given this failure and subsequent failures on
6 the Caribou-Palermo line, do you think you might have
7 recommended in 2012 that this line be retired or rebuilt?

8 A. Based on the age, based on the foundation
9 condition, meaning the direct buried steel, it would be
10 ranked high in that prioritization mark.

11 Q. Now, prior to the Camp Fire, did you or are you
12 aware of anybody else recommending the replacement or
13 retirement of the Caribou-Palermo line?

14 A. Yes. We had some ongoing NERC mitigation
15 project. You know, this NERC program is essentially to
16 address a lot of the low wire condition where these
17 conductor sag low, violating some kind of ground
18 clearance condition. This, this NERC project to try to
19 address that, those low lines. So as a part of the NERC
20 mitigation project, I believe, you know, that we did
21 propose the replacement of this area.

22 Q. Replacement of the entire line?

23 A. Most of it, yes.

24 Q. You were involved in the 2013 NERC project?

25 A. I was involved in the NERC project, yes.

26 Q. As part of that project, did anybody ever come

1 out and inspect these towers?

2 A. I'm not aware of that.

3 MR. NOEL: Anything further?

4 Mr. Ho, thank you. Madam Foreperson will have
5 an admonition for you before you can go.

6 GRAND JURY FOREPERSON: Mr. Ho, you are
7 admonished not to discuss or disclose at any time outside
8 of this jury room the questions that have been asked of
9 you or your answers until authorized by this Grand Jury
10 or the court. A violation of these instructions on your
11 part may be the basis for a charge against you of
12 contempt of court. This does not preclude you from
13 discussing your legal rights with your own attorney.

14 Mr. Ho, what I have just said is a warning not
15 to discuss this case with anyone except the Court, your
16 lawyer, or the district attorney. Do you have any
17 questions?

18 THE WITNESS: I understand.

19 GRAND JURY FOREPERSON: Thank you for your
20 time.

21 THE WITNESS: Thank you.

22 MR. NOEL: You are done. You can head back.
23 Thank you, Henry. It was a pleasure.

24 THE WITNESS: Thank you.

25 [DISCUSSION OMITTED.]

26 --oOo--

COURT REPORTER'S CERTIFICATE


This is to certify that I, JENNIFER L. HUNT, CSR, a Certified Shorthand Reporter of the State of California, was present at the time and place the foregoing proceedings were had and taken in the within matter; that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings and afterwards caused my said shorthand writing to be transcribed into typewriting. Further, pursuant to CCP237 all reference to jurors by name has been redacted.

The foregoing pages beginning at:

1 through 203

are certified to be a complete transcription of said stenographic shorthand notes.

DATED: THIS 6TH day of JUNE 2022



JENNIFER L. HUNT, CSR 10735
OFFICIAL REPORTER

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	bent tower leg		

1266	Photo of broken tower 185	34
	leg	
1267	Photo of broken tower 187	34
	leg	
1268	1/13 emails between 187	34
	Ho and (WITNESS #5)	
1269	4/24/13 emails re: 189	34
	C-P Storm Damage	
	Repl. Project	
1270	10/5/18 email re: 195	34
	Some supported needed	

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IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA
IN AND FOR THE COUNTY OF BUTTE

IN RE:)
)
CONFIDENTIAL GRAND JURY) BCSC-2019-GJ-001
PROCEEDINGS)
)
)
)
_____) **CERTIFIED COPY**

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS
FRIDAY, FEBRUARY 4, 2020
VOLUME 35
OROVILLE, BUTTE COUNTY, CALIFORNIA
ASHLEIGH BUTTON, CSR NO. 14013, OFFICIAL COURT REPORTER

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APPEARANCES:

FOR THE BUTTE COUNTY DISTRICT ATTORNEY'S OFFICE:

Marc Noel, Deputy District Attorney
Jennifer Dupre-Tokos, Deputy District Attorney
25 County Center Drive, Suite 245
Oroville, California 95965

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I N D E X

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OROVILLE, BUTTE COUNTY, CALIFORNIA

FEBRUARY 4, 2020; 8:30 a.m.

(Confidential Special Grand Jury Hearing Proceedings)

[Confidential grand jury called into session at 8:39 a.m.
in Courtroom 9.]

[Grand jury role call omitted.]

GRAND JURY FOREPERSON: Okay. We can proceed.

[Discussions omitted.]

MS. DUPRE-TOKOS: Okay.

MR. NOEL: Get going.

MS. DUPRE-TOKOS: Jennifer Celentano.

[Witness enters the courtroom.]

GRAND JURY FOREPERSON: Raise your right hand to be
sworn.

Investigator Celentano, do you solemnly swear
that the evidence you shall give in this matter pending
before the grand jury shall be the truth, the whole truth
and nothing but the truth so help you God?

THE WITNESS: I do.

GRAND JURY FOREPERSON: Thank you. Have a seat,

1 please.

2

3

EXAMINATION

4 BY MS. DUPRE-TOKOS:

5 Q. Good morning.

6 A. Morning.

7 Q. I know you've done this twice already, please
8 state your full name and spell your last name for us.

9 A. Sure. Jennifer Celentano. Last is spelled
10 C-E-L-E-N-T-A-N-O.

11 Q. Now, you testified previously about the death
12 certificates, and there were two that we knew had
13 incorrect case numbers. Do you recall that?

14 A. Yes.

15 Q. So in front of you -- oh, Marc.

16 In front of you, you should have Exhibit 881A?

17 A. Yes.

18 Q. Okay. Can you tell us what that is?

19 A. It's the death certificate for Ernest Foss.

20 Q. Okay. And are you looking at 881 or 881A?

21 A. Oh, sorry. Also -- the 881A is the death
22 certificate for Ernest Foss.

23 [Exhibit No. 881A was identified.]

24 BY MS. DUPRE-TOKOS:

25 Q. Okay. And does that death certificate -- what's
26 the case number listed on 881A?

1 A. 18-19487.

2 Q. And what is the case number listed on 881?

3 A. 18-19487.

4 Q. Okay. Is there an amendment to 881A?

5 A. Yes.

6 Q. How many?

7 A. Two.

8 Q. And what does the second amendment correct?

9 A. The second amendment corrects line 108A, the case
10 number.

11 Q. Okay. And what does it correct the case number
12 to?

13 A. The corrected case number is 18-19524.

14 Q. And to your knowledge is that actually the
15 correct case number for Mr. Ernest Foss?

16 A. Yes.

17 Q. Okay. And then if you could flip to 924 in the
18 binder, and then you should also have 924A in front of
19 you.

20 A. Okay.

21 Q. And can you tell us what Exhibit 924 is?

22 A. 924 is the death certificate for Don Shores.

23 Q. What is case number listed on 924?

24 A. 18-19704.

25 Q. And then looking at 924A, is there a case number
26 listed on the -- the front page of 924A?

1 A. Yes. It's 18-19704.

2 [Exhibit No. 924A was identified.]

3 BY MS. DUPRE-TOKOS:

4 Q. Is there an amendment attached to 924A?

5 A. Yes.

6 Q. How many?

7 A. Just one.

8 Q. And what does that amendment correct?

9 A. It corrects the case number on line 108A.

10 Q. And what does it correct the case number to?

11 A. The corrected case number is 18-19705.

12 Q. And to your knowledge is 19705 the correct case
13 number for Mr. Donald Shores?

14 A. Yes.

15 MS. DUPRE-TOKOS: Okay. Nothing further.

16 Anyone have any questions? That's it. Thank you
17 very much. Oh, you need to be -- need the admonishment.

18 GRAND JURY FOREPERSON: Okay. Investigator
19 Celentano, you are admonished not to discuss or disclose
20 at any time outside of this jury room the questions that
21 have been asked of you or your answers until authorized by
22 this grand jury or the Court.

23 A violation of these instructions on your part
24 may be the basis for a charge against you of contempt of
25 court. This does not preclude you from discussing your
26 legal rights with your own attorney.

1 Investigator Celentano, what I have just said is
2 a warning not to discuss this case with anyone except the
3 Court, your lawyer, or the district attorney.

4 Do you have any questions?

5 THE WITNESS: No.

6 THE COURT: Okay. Thank you for your time today.

7 THE WITNESS: Thank you.

8 MR. NOEL: Before you close that whole thing up, get
9 those processed and get them put into evidence.

10 MS. DUPRE-TOKOS: Oh.

11 MR. NOEL: 881 and 924.

12 MS. DUPRE-TOKOS: Could you have said something
13 before I put them in.

14 MR. NOEL: I didn't know what you were doing until...

15 MS. DUPRE-TOKOS: Okay.

16 MR. NOEL: We will move 881A and 924A into evidence.
17 Get that done so you can put those away.

18 [Exhibit No. 881A was admitted.]

19 [Exhibit No. 924A was admitted.]

20 GRAND JURY FOREPERSON: Okay. Ready.

21 [Witness enters the courtroom.]

22 THE WITNESS: Good morning.

23 GRAND JURY FOREPERSON: Good morning. Please, raise
24 your right hand to be sworn.

25 Investigator Dodd, do you solemnly swear that the
26 evidence you shall give in this matter pending before the

1 grand jury shall be the truth, the whole truth and nothing
2 but the truth so help you God?

3 THE WITNESS: I do.

4 GRAND JURY FOREPERSON: Thank you. Have a seat,
5 please.

6 **EXAMINATION**

7 BY MS. DUPRE-TOKOS:

8 Q. Good morning.

9 A. Good morning.

10 Q. You probably want to turn that around.

11 A. Okay.

12 Q. Could you please state your full name and spell
13 your last name for the record.

14 A. My name is Jason Dodd, D-O-D-D.

15 Q. Where are you employed and in what capacity?

16 A. I am employed with the Butte County District
17 Attorney's Office as an investigator.

18 Q. And how long have you been a sworn law
19 enforcement officer?

20 A. For 18 years.

21 Q. And how long have you been with the DA's office?

22 A. For four years.

23 Q. Where did you work prior to the DA's office?

24 A. The Butte County Sheriff's Office.

25 Q. How long did you work for the Sheriff's office?

26 A. For almost 20 years.

1 Q. Did you spend that whole 20 years as a sworn
2 officer?

3 A. No. Five of the years, I was a correctional
4 officer in the jail.

5 Q. Okay. Do you have any other law enforcement
6 experience other than the Sheriff's Department and DA's
7 office?

8 A. No.

9 Q. Now, were you assigned to assist with the Camp
10 fire in November of 2018?

11 A. I was.

12 Q. Were you assigned to help find victims of the
13 fire?

14 A. Yes.

15 Q. Were you assigned to do that on
16 November 11, 2018?

17 A. Yes, I was.

18 Q. And did you go to a residence at 13471 Green
19 Forest Lane in Concow on that date?

20 A. I did.

21 Q. Was that residence destroyed?

22 A. Yes.

23 Q. Were human remains located at that property?

24 A. Yes, they were.

25 Q. Was a case number assigned to those remains?

26 A. Yes.

1 Q. Was that case number 18-19586?

2 A. Yes.

3 Q. Now, looking at Exhibit 1271, which is on the
4 board and also right in front of you, did you, at some
5 point, learn that the male in that photograph is a
6 photograph of T.K. Huff?

7 A. Yes.

8 [Exhibit No. 1271 was identified.]

9 BY MS. DUPRE-TOKOS:

10 Q. And did you also, at some point, learn that the
11 remains associated with case number 18-19586 were those of
12 Mr. T.K. Huff?

13 A. Yes.

14 Q. Were Mr. Huff's remains located inside or outside
15 of the residence?

16 A. Outside.

17 Q. And could you describe generally where on the
18 property they were located?

19 A. It was on the backside of the property, near the
20 fence line. Yeah. So it would be the southeast side of
21 the property.

22 Q. Okay. And then just one last question: Was the
23 remains that you located, was it a full body or was it
24 ashes?

25 A. Full body.

26 Q. Thank you.

1 MS. DUPRE-TOKOS: I have nothing further.

2 Does anyone have any questions? No?

3 Okay. You just need an admonition from madam
4 foreperson and we're done.

5 THE WITNESS: Okay.

6 GRAND JURY FOREPERSON: Investigator Dodd, you are
7 admonished not to discuss or disclose at any time outside
8 of this room the questions that have been asked of you or
9 your answers until authorized by this grand jury or the
10 Court.

11 A violation of these instructions on your part
12 may be the basis for a charge against you of contempt of
13 court. This does not preclude you from discussing your
14 legal rights with your own attorney.

15 Investigator Dodd, what I have just said is a
16 warning not to discuss this case with anyone except the
17 Court, your lawyer, or the district attorney.

18 Do you have any questions?

19 THE WITNESS: No.

20 GRAND JURY FOREPERSON: Thank you for your time
21 today.

22 THE WITNESS: Thank you.

23 MS. DUPRE-TOKOS: And, Madam Foreperson, at this
24 time, we would move to have Exhibit 1271 admitted into
25 evidence.

26 [Exhibit No. 1271 was admitted.]

1 MS. DUPRE-TOKOS: So this was shorter than we had
2 planned today. We did have one other witness who had to
3 reschedule to Friday. He will do just about the last of
4 the finder evidence, which I suspect will make all of you
5 very happy. It will only leave two -- once he's done
6 testifying, that will take care of 81 of the victims
7 leaving just two more to do.

8 So I just wanted to let you folks know that. So
9 the end of the finder evidence is in sight.

10 MR. NOEL: Yep.

11

12 [Discussions omitted.]

13

14 [Matter adjourned at 9:18 a.m.]

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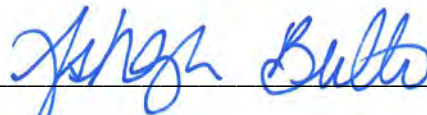
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COURT REPORTER'S CERTIFICATE

THIS IS TO CERTIFY THAT I, ASHLEIGH BUTTON, A
CERTIFIED SHORTHAND REPORTER OF THE STATE OF CALIFORNIA,
WAS PRESENT AT THE TIME AND PLACE THE FOREGOING GRAND JURY
PROCEEDINGS WERE HAD AND TAKEN IN THE WITHIN MATTER; AND
THAT AS SUCH SHORTHAND REPORTER I DID TAKE DOWN IN
SHORTHAND WRITING THE AFOREMENTIONED PROCEEDINGS; AND
AFTERWARDS CAUSED MY SAID SHORTHAND WRITING TO BE
TRANSCRIBED INTO TYPEWRITING; AND THE FOREGOING PAGES,
BEGINNING AT THE TOP OF PAGE 1 TO AND INCLUDING PAGE 15
HEREOF, CONSTITUTE A FULL, TRUE, ACCURATE, AND COMPLETE
RECORD OF THE PROCEEDINGS.

WITNESS MY HAND THIS 17TH DAY OF JUNE, 2022.



ASHLEIGH BUTTON, CSR #14013

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

REDACTED

BCSC-2019-GJ-01

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

FRIDAY, FEBRUARY 7, 2020

VOLUME 36

OROVILLE, BUTTE COUNTY, CALIFORNIA

LISA MCDERMID WELCH, CSR 10928, OFFICIAL COURT REPORTER

1 APPEARANCES:

2 FOR THE BUTTE COUNTY DISTRICT ATTORNEY'S OFFICE:

3 Marc Noel, Deputy District Attorney
4 Jennifer Dupre-Tokos
5 25 County Center Drive
6 Oroville, California 95965

7 FOR THE STATE OF CALIFORNIA DEPARTMENT OF JUSTICE
8 OFFICE OF THE ATTORNEY GENERAL:

9 (No appearance)

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I N D E X

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Examination by Ms. Dupre-Tokos 37

OFFICER ANGELO TAVELLI

Examination by Ms. Dupre-Tokos 41

OFFICER JAY WAANANEN

Examination by Ms. Dupre-Tokos 45

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2 **EXHIBIT DESCRIPTION INTRODUCED MARKED ADMITTED**

3

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5 1284 Photograph 53 129

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7 1285 Photograph 54 129

8 1286 Photograph 55 129

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10 1287 Photograph 55 129

11 1288 Photograph 56 129

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13 1289 Photograph 56 129

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1 OROVILLE, BUTTE COUNTY, CALIFORNIA

2 FEBRUARY 7, 2020; 8:45 a.m.

3 (Confidential Special Grand Jury Hearing Proceedings)

4
5 [PROCEEDING OMITTED.]

6
7 [ROLL CALL OMITTED.]

8
9 [DISCUSSION OMITTED.]

10
11 MR. NOEL: All right. (WITNESS #5), please.

12 [Witness enters the courtroom.]

13 GRAND JURY FOREPERSON: (WITNESS #5), before you
14 have a seat, please raise your right hand to be sworn.

15 (WITNESS #5), do you solemnly swear that the
16 evidence you shall give in this matter pending before the
17 grand jury shall be the truth, the whole truth, and
18 nothing but the truth so help you God?

19 THE WITNESS: I do.

20 GRAND JURY FOREPERSON: Thank you. Have a seat,
21 please.

22 **EXAMINATION**

23 BY MR. NOEL:

24 Q. (WITNESS #5), for the record can you please
25 state your full name spelling your last name.

26 A. (WITNESS #5), [Redacted spelling].

1 Q. (WITNESS #5), are you currently employed?

2 A. No. I'm retired.

3 Q. Retired from what?

4 A. PG&E.

5 Q. What did you do for PG&E?

6 A. I primarily worked in the tower department
7 starting off from --

8 Q. First of all, what was your position when you
9 retired?

10 A. M&C engineer, senior M&C engineer.

11 Q. What does the M&C stand for?

12 A. Maintenance and construction.

13 Q. Okay. So are you a trained engineer?

14 A. Trained?

15 Q. Right. Do you have an engineering degree?

16 A. No, I do not.

17 Q. How long did you work for PG&E?

18 A. Slightly under 34 years.

19 Q. Do you remember when you started?

20 A. The second time I was rehired was in '83.

21 Q. Okay. What do you mean the second time you were
22 rehired?

23 A. I hired on shortly out of school and worked a
24 little over five months and got laid off in the gas
25 department. At the time I got laid off they laid off up
26 to 15-year seniority.

1 Q. Okay. Why don't you walk us through your PG&E
2 career.

3 A. So on the gas side it was just a welder's helper
4 following him around, grinding his welds. Just kind of a
5 gofer to help a welder out. So that's all I did on the
6 gas side.

7 On the electric transmission side I was hired on
8 for a project out of the Santa Rosa area. It was called
9 the Castle Rock Lakeville Line. It was a whole brand new
10 transmission line that was being installed.

11 I started out in the steel yard bundling the
12 appropriate individual tower members to make complete
13 units of towers and load them on a truck to be taken out
14 to a remote location where these towers were being built.

15 I later became a truck driver. So I was
16 delivering the steel. I never was a tower man, but I
17 would temp at the rate and I would build towers. I
18 operated crane, CAT.

19 They saw that I was proficient in reading
20 blueprints so they moved me into -- they called me an
21 inspector. You didn't really inspect things, but that's
22 just the title they gave you. And it was more of putting
23 job packages together for the crews with the right
24 blueprints and things, doing some job estimating. I
25 moved up as an inspector from inspector B, C, and D.

26 I was a tower construction supervisor for a

1 while out of Davis. I oversaw their fabrication shop
2 where we would start off with 40-foot lengths of link
3 galvanized steel, cut them to the right length, punch the
4 holes where they go to be either complete or individual
5 tower components.

6 I moved into a M&C engineer position. That's --
7 basically I left the tower department and went to work
8 for another group, but it was still tied to tower. It
9 just also added some components to the structure itself.
10 Dealt with providing jobs for replacing insulators and
11 small reconductoring jobs.

12 Q. So what exactly does an M&C engineer do?

13 A. There's no defined job scope. It's kind of
14 whatever. It's -- it's estimating jobs, project managing
15 small-dollar, fast-paced work, projecting what months
16 work is going to be done, forecasting work hours, field
17 work hours under those appropriate months, coordination
18 with the work force to make sure the job is scheduled and
19 going to be done, track dollars spent on said jobs.

20 You're kind of a liaison between the field crews
21 and both civil and electrical engineers.

22 Q. Okay. What kind of training did you get to
23 qualify you for this job?

24 A. I don't think I could honestly say that I had
25 any formal training related to the work. It was just
26 more of my -- what they saw in me, my capabilities past

1 work through the whole implement of tower construction.

2 There might have been some short classes along
3 the way that were just high-level oversights of different
4 things. But when you become a M&C engineer, it's usually
5 somebody that you're replacing that is teaching you how
6 to go forward and then it's you take on your own whatever
7 you're capable of doing.

8 Q. When did you become an M&C engineer?

9 A. My best guess would be 2005.

10 Q. Now, did you have a specific geographic area
11 that you were assigned as the M&C engineer?

12 A. Not in 2005. There was only me, and I did the
13 entire PG&E system.

14 Q. Eventually, did you -- well, let me back up.
15 Did you have an office where you worked out of?

16 A. When I first became an M&C engineer, I was in an
17 office in Sacramento.

18 Q. Eventually did you obtain a region or geographic
19 area?

20 A. Yeah. I initially took the north area.

21 Q. Okay. And what's the north area encompass?

22 A. So it's the T-line headquarters for Sacramento,
23 Table Mountain, Eureka, Lakeville, and then it would off
24 and on be between the East Bay and the bay.

25 Q. Did you have an office that you worked out of at
26 that point?

1 A. Well, eventually I moved to the Oroville office
2 to the customer payment center.

3 Q. Okay. And that was your base of operations as
4 the M&C engineer?

5 A. It was negotiated. It was "If you want me to
6 continue with this work assignment, I need an office
7 closer to home instead of reporting to Sacramento every
8 day."

9 Q. Okay. So you wanted to be in Oroville?

10 A. Yeah. I wanted to be at home.

11 Q. Were you at the PG&E office in Oroville or were
12 you at the Table Mountain Center?

13 A. No. I was at the customer payment office in
14 Oroville, Downtown Oroville.

15 THE COURT REPORTER: There's some water right
16 there for you. That's for you if you need it.

17 BY MR. NOEL:

18 Q. Yeah. Sorry. Ms. Dupre-Tokos also reminded me
19 there's a remnant of a case of water back there. Help
20 yourself.

21 A little nervous this morning, aren't you?

22 A. I'm not good speaking.

23 Q. Okay. You've never done this before, I'm
24 guessing?

25 A. Not this particular thing, no.

26 Q. All right. Okay. So talk to us about your

1 duties, your job as an M&C engineer for the north region
2 operating out of Oroville.

3 A. Well, I mean, the duties are such as I described
4 earlier. They don't change region to region.

5 Q. Okay. So you were estimating jobs?

6 A. Yes.

7 Q. Putting together work packages?

8 A. Yes.

9 Q. For all of the headquarters which would include
10 Table Mountain Center?

11 A. Yes, for small jobs, normally quick turn-around
12 and fast-paced work.

13 Q. In 2007 did you get involved with a project to
14 relocate towers on the Caribou-Palermo line?

15 A. Yes.

16 Q. Can you explain to us how you got involved in
17 that project.

18 A. Table Mountain supervisor -- well, let me back
19 up one step. I was at a meeting in San Ramon, and a
20 gentleman by the name of Keith Williams, I think -- no,
21 not Keith Williams. His name is mentioned inside some of
22 these documents in front of me. I can't remember it
23 right now. But he was a manager who let me know that
24 there was monies available for projects if anybody had
25 anything to do. The bucket itself was to replace -- the
26 Deteriorated Tower Replacement Program.

1 So I went and asked all the headquarters that I
2 worked over if anybody had anything in their area that
3 they needed replaced or wanted replaced or to get on a
4 wish list. And the only person that spoke up was
5 (EMPLOYEE #3).

6 Q. Who was (EMPLOYEE #3)?

7 A. At the time he was the T-line -- T-line Table
8 Mountain supervisor.

9 Q. Okay. And at the time (EMPLOYEE #3) was the
10 T-line supervisor at Table Mountain, eventually was
11 (EMPLOYEE #3) replaced in that position?

12 A. Well, he rotated in and out a lot and he
13 eventually retired.

14 Q. Retired?

15 A. That's my knowledge.

16 Q. Okay. Who took (EMPLOYEE #3)'s place as the
17 T-line supervisor for Table Mountain?

18 A. I mean, there was several. And I don't remember
19 the chronological order, but (EMPLOYEE #16) filled in.
20 (WITNESS #12) eventually took that position as a whole.

21 Q. Now, after leaving the T-line supervisor, did
22 (EMPLOYEE #3) take another job before he retired?

23 A. I don't know.

24 Q. Okay. All right. So (EMPLOYEE #3) suggests or
25 nominates a job on the Caribou-Palermo line?

26 A. Correct.

1 Q. All right. And so did you apply for funds for
2 the job on the Caribou-Palermo line?

3 A. I filled out an Advance Authorization to get
4 some dollars approved to initiate looking into (EMPLOYEE
5 #3)'s request.

6 [Exhibit 1298 introduced
7 as evidence.]

8 BY MR. NOEL:

9 Q. Okay. All right. You should have in front of
10 you what has marked as Exhibit 1298. Do you see a tag
11 there on the top right corner?

12 A. Yes.

13 Q. And it's a two-page document. And do you
14 recognize Exhibit 1298?

15 A. Yes.

16 Q. What is Exhibit 1298?

17 A. It's an Advance Authorization form.

18 Q. Okay. And is this the Advance Authorization
19 form that you initially completed for the Caribou-Palermo
20 job in 2007?

21 A. Yes. This was the first draft before it was
22 routed for approval.

23 Q. All right. So this was just a draft?

24 A. Yes.

25 Q. And there's, for instance, some blue
26 interlineated lines and words and comments on it?

1 A. Yeah. I mean, I see what you're referring to.

2 Q. All right.

3 MS. DUPRE-TOKOS: And, (WITNESS #5), if it helps
4 at all, you can stand up and look at the TV.

5 BY MR. NOEL:

6 Q. Yeah. We've got it up on the big board behind
7 us. You've got the original in front of you.

8 All right. So under "project manager" it says
9 (WITNESS #5). Is that you?

10 A. That's me.

11 Q. And the date May 7, 2007?

12 A. Yes.

13 Q. All right. So what's the title of the job?

14 A. "Caribou-Palermo 115 kV structure and conductor
15 replacement."

16 Q. And how much money were you seeking originally
17 for this job or from the Advance Authorization?

18 A. \$800,000.

19 Q. And did you estimate how much the -- estimate
20 how much the project eventually would cost?

21 A. Yeah. I threw a rough guess out. I felt it
22 would be around 5 million.

23 Q. Okay. What was the project description
24 justification that you put in your application in your
25 Advance Authorization form?

26 A. What's on here is "It is recommended that the

1 director of electric asset strategy approve an Advance
2 Authorization of \$800k for preliminary engineering and
3 the purchase of long lead-time material to replace a line
4 section on the Caribou-Palermo between towers 7/55 and
5 8/64.

6 This project is part of PG&E's Deteriorated
7 Transmission Equipment Replacement Program and is
8 included in the PG&E five-year plan. This project has an
9 estimated cost of 5 million. We expect to seek full
10 approval for this project by March 28 -- or March 2008."

11 Q. Okay. Now, the PG&E Deteriorated Transmission
12 Equipment Replacement Program, is that the program you
13 were talking about that you were told about down in San
14 Ramon?

15 A. Yes.

16 Q. And can you give us any other information as to
17 what that program was.

18 A. It's -- it was a capital program under Major
19 Work Category 70 that just had a bucket of money
20 available for projects, identified projects.

21 Q. Okay. Well, the title of it is "PG&E's
22 Deteriorated Transmission Equipment Replacement Program."

23 Were you told that the program was to replace
24 equipment -- deteriorated equipment on transmission
25 lines?

26 A. It's just a pot that had money in it. They're

1 just -- they can move money between any of the programs
2 they want to.

3 Q. Okay. So the projects that were funded by the
4 Deteriorated Transmission Equipment Replacement Program
5 didn't have to necessarily have anything to do with
6 deteriorated transmission equipment?

7 A. I honestly don't know the correct answer to
8 that.

9 Q. All right. And what do you mean when it says
10 that it is included in PG&E's 5-year plan?

11 A. PG&E has a rolling 5-year plan that identifies
12 both PG&E management's wish list of projects to be done
13 and local regional supervisor's wish list of work that
14 needs to be done. So it's an ongoing list of work that
15 they'd like to have completed.

16 Q. So was replacement of section -- a section of
17 the Caribou-Palermo line something that PG&E's 5-year
18 plan was to be done or was it the Deteriorated
19 Transmission Equipment Replacement Program that was in
20 the 5-year plan?

21 A. The program was in the five years.

22 Q. Okay. All right. So and then down below we've
23 got some signature lines. Do you recall who Keith
24 Williams was?

25 A. Yeah. Keith is the one that said he had money
26 available.

1 Q. Okay. And do you remember what his job was at
2 the time?

3 A. Just -- it says here "Lifecycle planning
4 manager."

5 Q. All right. And do you recall what the initials
6 EAS stand for?

7 A. I do not.

8 Q. Is it possible that that's Electric Asset
9 Strategy?

10 A. I was going to say I see that down below, yes.

11 Q. Okay. And T&D. Do you know what that stands
12 for?

13 A. Transmission distribution.

14 Q. Okay. And are you aware of what the job of
15 lifecycle planning was?

16 A. No.

17 Q. Okay. And how about the next guy Robert
18 Malahowski?

19 A. I don't recall who he was.

20 MR. NOEL: That's Malahowski, Madam Reporter.

21 BY MR. NOEL:

22 Q. And finally, Luther Dow.

23 A. Yeah, I know who Luther Dow is.

24 Q. Who is Luther Dow?

25 A. He was the director of Electric Asset Strategy.
26 He's the one that had to sign off on allocating some

1 funds toward looking into this line replacement, line
2 section replacement.

3 Q. All right. And so you requested \$800,000 which
4 included money for engineering, land review,
5 environmental review, materials? All of that?

6 A. Yes.

7 Q. Right?

8 Okay. Let's go to page 2. And can you read us
9 what you wrote under "Action recommended."

10 A. "It is recommended that the director of the
11 Electric Asset Strategy approve an Advance Authorization
12 for \$800k for preliminary engineering and purchase of
13 long lead-time material to replace conductor and towers
14 on a section of the Caribou-Palermo 115 kV transmission
15 line between structures 7/55 and 8/64. This project is
16 part of PG&E's Deteriorated Transmission Equipment
17 Replacement Program and is included in the PG&E's 5-year
18 plan."

19 Excuse me. "The project has an estimated total
20 cost of \$5 million. We expect to see full approval for
21 this project by November 2007."

22 Q. All right. And then can you read us what you
23 put in the background section.

24 A. "There have already been multiple conductor
25 failures on this line due to the conductor being annealed
26 and parting. Since 2002 there have been eight event

1 reports created on this line five of which was
2 equipment-related failures. Several infrared inspections
3 have also been performed with follow-up repairs and
4 shunts on multiple conductor splices. This line section
5 is located across the Feather River with no access roads
6 and in very steep terrain. It is very time consuming and
7 costly to correct any failures that occur in this
8 dilapidated line section especially during the winter
9 months when failures are more likely.

10 There is also probability of existing G095
11 impaired ground clearance issues due to the age of the
12 line. This won't be confirmed until after a line survey,
13 but other areas of this line have been corrected in past
14 years for the same thing."

15 Q. All right. And then do you know who's added the
16 blue comments?

17 A. I do not.

18 Q. All right. So let's break this down. "Since
19 2002 there have been eight event reports created on this
20 line five of which were equipment-related failures."

21 Do you recall where you got that information?

22 A. From the GCC event reports.

23 Q. Okay. And what do you mean by equipment-related
24 failures?

25 A. It means that a mechanical component of the line
26 was determined to cause an outage instead of like it

1 would have been a bird striking the line which caused a
2 momentary.

3 Q. Right. If a bird hit a line, that wouldn't be
4 an equipment failure?

5 A. Not normally.

6 Q. If a mylar balloon got stuck in a line and
7 caused an outage, that wouldn't be equipment failure?

8 A. Correct.

9 Q. Would a lightening strike be equipment failure?

10 A. I don't know what they determine as equipment
11 failures.

12 Q. Okay. So then we go down. What is the
13 importance of shunts on multiple conductor splices?

14 A. Typically, it would mean that during that
15 infrared patrol at the splice location the infrared
16 picked up some heat coming out of that splice which could
17 be determined as improper splice connection. And so then
18 they wrap wires on the conductor over the splice and back
19 onto the conductor to mitigate that heat transfer
20 difference. That's what a shunt is.

21 Q. Okay. Then you used the term "dilapidated line
22 section." Okay. Do you remember where you -- how you
23 formed the description of the Caribou-Palermo in that
24 area of being dilapidated?

25 A. There is no general reason why except for it's
26 verbiage to get attention to hopefully get this job

1 pushed through. So it fulfilled what (EMPLOYEE #3)
2 wanted to do to move this line from one side of the river
3 to the other.

4 Q. All right. So let's drop down to description of
5 recommendation. And if you could read us what you wrote
6 in that section.

7 A. "The following is recommended by March 2009. It
8 was determined in the field by T/Line, GC Tower, Civil &
9 Electrical Engineering that this tower line section would
10 be very difficult and costly to replace in the event of a
11 failure. Probability of that failure is imminent due to
12 the age of both the towers and conductor. The intent of
13 this project is to be proactive and replace this
14 deteriorated line section in a controlled and planned
15 manner instead of under emergency conditions."

16 Q. Okay. "Probability of that failure is imminent
17 due to the age of both the towers and conductor."

18 Do you recall how you came to that conclusion?

19 A. Well, again, I know how old the line was, but
20 using the word "imminent" it's more likely -- the older
21 something is the more likely a chance that at some point
22 you're going to have a failure.

23 Q. Exactly.

24 A. Plus five of those outages outside of this line
25 section was equipment related.

26 Q. Why is that important?

1 A. You already shown that failures have occurred
2 within the transmission line.

3 Q. Okay. You said you new how old this line was.
4 Could you explain that.

5 A. Well, I mean, I know it's early 1900s and it was
6 owned by Great Western Power Company prior to PG&E.

7 Q. Okay. And how does -- in your experience how
8 does age affect reliability or failure rates?

9 A. Well, it's not just age alone. There's multiple
10 factors in determining potential lifecycle. The age in
11 this case is more related to conductor insulators and me
12 not knowing or having access to when any of that, if any,
13 have been upgraded over the years.

14 Q. What did you know about the age of the
15 conductors and insulators?

16 A. I didn't have any direct knowledge of the age of
17 that other than -- you know, if nothing had been done
18 since the line was built, then that's -- that's, in my
19 experience, a long time to be leaving the same component
20 up for that length of time.

21 Q. Okay. All right. And then the final section
22 "other alternates." If you could read us what you wrote.

23 A. "Status quo (Do nothing). The status quo is not
24 acceptable because this line section -- this line
25 section's inaccessibility and the failures that have
26 occurred over the years. A severe failure would put

1 customers at risk of an outage and could cause damage to
2 other electrical system components in the area."

3 [Exhibit 1299 introduced
4 as evidence.]

5 BY MR. NOEL:

6 Q. All right. Okay. Let's move on to 1299. You
7 should have that in front of you. It's an e-mail.

8 A. Yes.

9 Q. And do you recognize that?

10 A. Yes.

11 Q. And what can you tell us about this e-mail.

12 A. It's from Keith Williams who is the first
13 approver on the day-to-day.

14 Q. Okay. And it's directed to you?

15 A. Yes.

16 Q. And dated May 8, 2007?

17 A. Yes.

18 Q. And can you read what Keith Williams says.

19 A. It says "(WITNESS #5), see my comments. I think
20 we are close to having this ready for approval."

21 Q. Okay. Does that refresh your recollection as to
22 whose comments were in blue?

23 A. No.

24 Q. Okay. So did you have multiple people reviewing
25 your AA?

26 A. Yes.

1 Q. Okay. Great.

2 [Exhibit 838 introduced
3 as evidence.]

4 BY MR. NOEL:

5 Q. So let's move on now to 838. It should be --
6 actually, it's up there on the board. We didn't pull it.
7 It's already in evidence.

8 And we have 838 up here, another AA. Do you
9 recognize 838?

10 A. Yes.

11 Q. What is 838?

12 A. It's a revised version of the first document.

13 Q. What is different between this version and 1298
14 that we just reviewed?

15 A. Luther Dow asked me to take the "long lead-time
16 material" out of it and re-word some of what I had put in
17 there.

18 Q. Okay. So first difference or big difference,
19 material difference you're now only asking for \$200,000;
20 correct?

21 A. Yes.

22 Q. And let's look at the changes in your -- in the
23 section at the end. If you can read to us what you
24 put -- what you wrote in the background in the revised
25 version.

26 A. "There have already been multiple conductor

1 failures on this line due to the conductor being annealed
2 and parting. Since 2002 there have been eight event
3 reports created for this line five of which were
4 equipment-related failures. Several infrared inspections
5 have also been performed with follow-up repairs and
6 shunts on multiple conductor splices. This line section
7 is located across the Feather River where there are no
8 access roads and the terrain is very steep. As a result,
9 emergency response is slow, time-consuming, and costly.

10 There is also a probability of existing G095
11 impaired ground clearance issues due to the age of the
12 line. This won't be confirmed until after line survey,
13 but other areas of this line have been corrected in past
14 years for ground to line clearance issues.

15 The Caribou-Palermo 115kv line supports hydro
16 generation. A sustained outage would affect Grizzly
17 Powerhouse. The biggest concern with Caribou-Palermo 115
18 outage planned or unplanned is the load at risk in the
19 event of a Caribou-Table Mountain 230 outage.

20 Approximately 10,000 customers would experience the
21 sustained outage. Additionally, if we cannot
22 sectionalize and restore the section of Caribou-Palermo
23 between Wyandotte and Palermo, we would be concerned
24 about Wyandotte load at risk in the event of a
25 Caribou --" or excuse me -- "in the event of a
26 Palermo-Wyandotte outage we wouldn't be able to restore

1 off the Caribou-Palermo line as designed. Wyandotte
2 substation serves 16,515 customers."

3 Q. All right. So first off, do you recall why you
4 took out the description of the line as being
5 dilapidated?

6 A. Would have been by one of the reviewers.

7 Q. Okay. And this third paragraph here starts with
8 "The Caribou-Palermo 115 line supports hydro generation"
9 was added.

10 A. Yes.

11 Q. Do you recall why that information was added?

12 A. Not exactly. I believe Keith Williams requested
13 it or Luther requested to know what's the support.

14 Q. Okay. Why is that important?

15 A. It's just showing the customers at risk if they
16 lost load.

17 Q. Customers at risk of losing power?

18 A. Yes.

19 Q. Not customers at risk of contact with the line
20 or anything like that?

21 A. No.

22 Q. So this last paragraph, would that be what would
23 generally be considered the reliability metrics for this
24 line?

25 A. I can't answer that.

26 Q. Okay.

1 A. It's information that came from the GCC.

2 Q. But why is it important in a request for money
3 to fix an aging, deteriorating line to show the customers
4 are going to be affected by an outage on that line?

5 A. Can't answer that. It was something that one of
6 the approvers wanted added.

7 Q. Okay. And then could you read for us the
8 description of the recommendation.

9 A. "The following is recommended by March 2009:
10 Replace deteriorated structures, conductor, insulators,
11 and hardware on the Caribou-Palermo 115 line between
12 structures 7/55 and 8/64."

13 Q. Why did you take out all of the language about
14 the imminent failure due to the age of both the towers
15 and the conductor?

16 A. Again, it would have been directed by the
17 reviewers.

18 Q. Okay. All right. Let's move on. Now, 2012
19 you're still the M&C engineer for the north?

20 A. I believe so.

21 Q. Okay. Do you recall in 2000 -- December of 2012
22 an incident where five towers on the Caribou-Palermo line
23 fell down?

24 A. Yes.

25 Q. And actually, I got ahead of myself here. The
26 AA we just did -- 838 -- was that AA approved for the

1 Caribou-Palermo relocate project?

2 A. It was approved to do advanced pre-engineering
3 and looking into if it needed to be done or not, yes.

4 Q. Once the project was approved, they -- I guess
5 the research for the project was approved, did you remain
6 with the job?

7 A. No. It was outside of the scope of an M&C
8 engineer.

9 Q. Okay. So do you know what happened to the job?

10 A. It was assigned a project management. And I
11 believe (WITNESS #15) was the first project manager who
12 had the job.

13 Q. Now, once a project manager was assigned, did
14 you stay involved in the project?

15 A. I was just -- seemed like I was always cced on
16 everything whether I wanted to be or not.

17 Q. Okay. Now, by 2009 had the project been done?

18 A. Been done? No.

19 Q. Okay. In 2009 -- in late 2009 did you again get
20 roped into the project?

21 A. I don't remember the year or anything.

22 [Exhibit 839 introduced
23 as evidence.]

24 BY MR. NOEL:

25 Q. All right. We have up here on the board an
26 e-mail that's marked as -- or is in evidence as 839. So

1 we have Exhibit 839 on the board.

2 Do you know who Douglas Cannel was?

3 A. Yes.

4 Q. Who was Douglas Cannel?

5 A. I don't know his title but somewhere in the
6 asset management realm.

7 Q. How about Raymond Thiery?

8 A. He was Doug's boss.

9 Q. And (EMPLOYEE #3)?

10 A. Table Mountain supervisor.

11 Q. Chuck Stinnett?

12 A. He's a -- he's got multiple hats; substation and
13 transmission, asset lifecycle.

14 Q. Okay.

15 A. He's pretty diverse.

16 Q. You're cced into this e-mail marked as 839 from
17 Doug Cannel; correct? You were cced into this e-mail
18 chain?

19 A. Yes.

20 Q. And specifically, I want to ask you about one
21 section in here. And I think we have it blown up in the
22 next -- well, a couple of sections. First, in the
23 December 23rd e-mail Mr. Cannel writes "I'm not sure we
24 should re-authorize the AA for \$800,000."

25 Now, 800,000 is what you originally asked for;
26 correct?

1 A. Yes.

2 Q. And we have below it a clip from your original
3 request of \$800,000. So it looks like this project is
4 now almost at \$800,000.

5 A. I have no idea.

6 Q. Okay. Why did you drop your submission from
7 800,000 to 200,000?

8 A. As I explained, because Luther Dow told me to
9 take the advanced material purchase off which was
10 600,000.

11 Q. Okay. And then it's says "The project is
12 currently planned and will run over \$10 million."
13 Correct?

14 A. That's what it says.

15 Q. And you originally estimated it at 5 million?

16 A. Okay.

17 Q. Is that correct?

18 A. That's what I threw out there as a ballpark.

19 Q. Okay. Do you remember what you based that
20 estimate on?

21 A. Historic builds per line mile.

22 Q. Okay. Now, next we get to the heart of it. In
23 that e-mail from Doug Cannel he says "I asked (WITNESS
24 #5) about the current condition of the towers and he
25 informed me he couldn't answer the question since he was
26 not aware of an inspection that took place. If there was

1 an inspection, could you please forward me the findings.
2 I'll need them if we're going to proceed with a replace
3 deteriorated facilities project."

4 Do you recall having that conversation with
5 Douglas Cannel?

6 A. He just asked me if I had seen the inspection
7 reports or had initiated any inspection on it.

8 Q. Okay. Why would there be an inspection on it?

9 A. To determine the condition of the structures.

10 Q. Well, in your application -- your initial
11 application you wrote all about the event reports and
12 equipment failures; correct?

13 A. Yeah.

14 Q. And infrared inspections we already talked
15 about; correct?

16 A. That's not in this section of line. That's the
17 line as a whole.

18 Q. And dilapidated line sections?

19 A. It's just verbiage. I have no actual knowledge
20 that they were dilapidated.

21 Q. Okay. And then the age of the line. We talked
22 about that?

23 A. Yes.

24 Q. And then down in the -- in the bottom section
25 "The probability of that failure is imminent due to the
26 age of both the towers and the conductor."

1 A. Again, just verbiage.

2 Q. So again, now those are being questioned?

3 A. Yeah. They want to know is there facts -- is
4 there factual evidence to support moving forward with
5 this project.

6 Q. So when you're doing at least the initial draft,
7 you were making -- you said verbiage with no factual
8 evidence?

9 A. That is the direction of what (EMPLOYEE #3)
10 wanted to do to relocate the line so if there was a
11 failure, it could be addressed easier and quicker.

12 Q. Okay. So was (EMPLOYEE #3) telling you this
13 information about the line?

14 A. I think he was assisting in coming up with data
15 and verbiage, yeah.

16 Q. Right.

17 A. And then the GCC for the event reports.

18 Q. And (EMPLOYEE #3) is the person -- the T-line
19 supervisor; right?

20 A. Yes.

21 Q. And he's the person who is in charge of doing
22 the inspections and patrols on this line; correct?

23 A. Yes and no.

24 Q. And so were you getting this information about
25 dilapidated line section from (EMPLOYEE #3)?

26 A. Probably not.

1 Q. Okay. Were you getting this information about
2 "failure is imminent" from (EMPLOYEE #3)?

3 A. Probably not.

4 Q. So are you saying that you're just putting in
5 verbiage with absolutely no support just to get money for
6 a project that (EMPLOYEE #3) wants to do?

7 A. To get money to investigate if a project is
8 feasible, yes.

9 Q. Okay. So the title of this project fund is "The
10 Deteriorated Transmission --" and all of a sudden I
11 forgot the rest of the phrase. But the title of the
12 project would seem to infer that the money was there to
13 replace deteriorated transmission assets; correct?

14 A. So it's a bucket of where there was money
15 currently. And if it wasn't identified under that title,
16 they would have moved that money to another bucket under
17 another title.

18 MR. NOEL: All right. Not a good place but we
19 need to take a break right now because madam reporter has
20 to go deal with something else at 10 o'clock. So madam
21 foreperson is going to read you an admonition and then
22 we're going to take a recess for a little while.

23 GRAND JURY FOREPERSON: Okay. (WITNESS #5), you
24 are admonished not to discuss or disclose at any time
25 outside of this jury room the questions that have been
26 asked of you or your answers until authorized by this

1 grand jury or the Court. A violation of these
2 instructions on your part may be the basis of a charge
3 against you of contempt of court. This does not preclude
4 you from discussing your legal rights with your own
5 attorney.

6 (WITNESS #5), what I have just said is a warning
7 not to discuss this case with anyone except the Court,
8 your lawyer, or the district attorney.

9 Do you have any questions?

10 THE WITNESS: No. Thank you.

11 GRAND JURY FOREPERSON: Okay. Thank you.

12 [Recess taken from

13 10:00 until 10:28 a.m.]

14 GRAND JURY FOREPERSON: All members of the grand
15 jury have returned from a break and are ready to proceed.

16 [Witness enters the courtroom.]

17 GRAND JURY FOREPERSON: Mr. Bradley, before you
18 have a seat, please raise your right hand to be sworn.

19 Mr. Bradley, do you solemnly swear that the
20 evidence you shall give in this matter pending before the
21 grand jury shall be the truth, the whole truth, and
22 nothing but the truth so help you God?

23 THE WITNESS: Yes.

24 GRAND JURY FOREPERSON: Thank you. Have a seat,
25 please.

26 **EXAMINATION**

1 BY MS. DUPRE-TOKOS:

2 Q. Good morning. Could you state your name and
3 spell your last name for us.

4 A. Of course. My name is Brett Bradley. That is
5 B-r-a-d-l-e-y.

6 Q. And do you know someone by the name of Ethel
7 Riggs?

8 A. Yes. That is my grandmother.

9 [Exhibit 1275 introduced
10 as evidence.]

11 BY MS. DUPRE-TOKOS:

12 Q. And looking up at the board at Exhibit 1275, do
13 you recognize that person?

14 A. Yes. That would be my grandmother.

15 Q. Okay. Is your grandmother still with us?

16 A. Unfortunately she passed in the Camp Fire.

17 Q. Okay. Did you speak with your grandmother on
18 November 8th, 2018?

19 A. Yes. I spoke to her three times.

20 Q. And was that over the phone or in person?

21 A. It was over the phone.

22 Q. Did you call her or did she call you?

23 A. I called her each one of the times.

24 Q. Had you spoken to your grandmother on the phone
25 before?

26 A. Yes. I normally talked to her, you know, two to

1 three times a week.

2 Q. And when you spoke with her on November 8, 2018,
3 you said you called her all three times?

4 A. Yes.

5 Q. Did you call the number or numbers that you
6 normally would call to get in touch with her?

7 A. Yes.

8 Q. And when you heard her voice, was that the voice
9 that you recognized as that of your grandmother's that
10 you spoke with so frequently?

11 A. Yes, it was.

12 Q. Okay. And do you recall about what time it was
13 the last time you spoke with your grandmother?

14 A. I believe it was around 11 o'clock. Yeah, it
15 was about 11 o'clock.

16 Q. And do you recall about what time it was the
17 first time you spoke with her that morning?

18 A. I believe around 10:00.

19 Q. Okay. I have nothing --

20 So the first call, was that to her landline or
21 her cellphone?

22 A. The first call was on her landline and the
23 second call was to her -- the second and third call were
24 on her cellphone.

25 Q. And why did you switch from landline to
26 cellphone?

1 A. Because her landline was no longer working
2 because of, I believe, power outages.

3 MS. DUPRE-TOKOS: Okay. I have nothing further
4 for you.

5 Do the jurors have any questions? Nope.

6 Okay. Madam foreperson has an admonition for
7 you.

8 GRAND JURY FOREPERSON: Okay. Mr. Bradley, you
9 are admonished not to discuss or disclose at any time
10 outside of this jury room the questions that have been
11 asked of you or your answers until authorized by this
12 grand jury or the Court. A violation of these
13 instructions on your part may be the basis for a charge
14 against you of contempt of court. This does not preclude
15 you from discussing your legal rights with your own
16 attorney.

17 Mr. Bradley, what I have just said is a warning
18 not to discuss this case with anyone except the Court,
19 your lawyer, or the district attorney.

20 Do you have any questions?

21 THE WITNESS: No, I do not.

22 GRAND JURY FOREPERSON: Okay. Thank you for
23 your time.

24 [Witness Bradley exits as Deputy Tavelli enters.]

25 GRAND JURY FOREPERSON: Deputy Tavelli, would
26 you raise your right hand to be sworn, please.

1 Deputy Tavelli, do you solemnly swear that the
2 evidence you shall give in this matter pending before the
3 grand jury shall be the truth, the whole truth, and
4 nothing but the truth so help you God?

5 THE WITNESS: Yes, Ma'am.

6 GRAND JURY FOREPERSON: Thank you. Have a seat,
7 please.

8 **EXAMINATION**

9 BY MS. DUPRE-TOKOS:

10 Q. And, Sergeant Tavelli, could you please state
11 your full name and spell your last name for the record.

12 A. My name is Angelo Tavelli, and it's
13 T-a-v-e-l-l-i.

14 Q. Where are you employed and in what capacity?

15 A. Currently employed by the Butte County Sheriff's
16 Office, and I'm a sergeant assigned to patrol at this
17 time.

18 Q. Are you assigned to any other duties?

19 A. I'm also assigned to SWAT amongst many other
20 things.

21 Q. And we're interrupting your SWAT training for
22 you to be here, aren't we?

23 A. Yes, Ma'am.

24 Q. So we'll try and get you in and out of here
25 quickly.

26 How long have you been at the Butte County

1 Sheriff's Office?

2 A. Been employed at the Butte County Sheriff's
3 Office since 2008.

4 Q. And did you have any law enforcement experience
5 prior to joining the sheriff's office?

6 A. No, Ma'am.

7 Q. Did you assist with evacuations for the Camp
8 Fire on November 8, 2018?

9 A. Yes, Ma'am.

10 Q. And where were you working on evacuations?

11 A. I started -- attempted to get to the Concow side
12 and then due to the fire taking over the road I was
13 redirected to the Pentz side. I was sent from Highway 70
14 to assist with the hospital and surrounding area
15 evacuations.

16 Q. And were there any assisted-living type
17 facilities or things like that near the hospital?

18 A. Yes. That's the first place we were directed to
19 was the hospital and then there was a large facility
20 behind the hospital multi-story. And then I guess to the
21 east of that there was like a duplex-style assisted
22 living.

23 Q. And you were trying to direct people to evacuate
24 in that area as well?

25 A. Yes.

26 [Exhibit 1026 introduced

as evidence.]

BY MS. DUPRE-TOKOS:

Q. Okay. Looking at Exhibit 1026 -- and I apparently did not put it in front of you. So I apologize. But if you can look at the board, do you recognize this gentleman?

A. I do.

Q. How do you recognize him?

A. He lived in the duplex-style living by the assisted-living facility.

Q. Okay. And did you give him instructions and encouragement to evacuate?

A. I did amongst many other people, him and his dog.

Q. Okay. And you're sure that is the person you spoke with?

A. Yes, Ma'am.

Q. And do you know approximately what time you were giving evacuation instructions in that area and especially to the duplexes? If you know.

A. I couldn't really give you an approximate time. Time is not really relative for that day.

Q. Right.

A. It was early-on morning hours. I don't know what time though.

MS. DUPRE-TOKOS: Okay. So I have no further

1 questions.

2 Do the jurors have any questions?

3 Okay. You just need an admonition from madam
4 foreperson.

5 GRAND JURY FOREPERSON: Deputy Tavelli, you are
6 admonished not to discuss or disclose at any time outside
7 of this jury room the questions that have been asked of
8 you or your answers until authorized by this grand jury
9 or the Court. A violation of these instructions on your
10 part may be the basis for a charge against you of
11 contempt of court. This does not preclude you from
12 discussing your legal rights with your own attorney.

13 Deputy Tavelli, what I have just said is a
14 warning not to discuss this case with anyone except the
15 Court, your lawyer, or the district attorney.

16 Any questions?

17 THE WITNESS: No, Ma'am.

18 GRAND JURY FOREPERSON: Thank you for your time
19 today.

20 THE WITNESS: Thank you.

21 [Witness exits the courtroom.]

22 MR. NOEL: Next is Waananen.

23 [Witness enters the courtroom.]

24 GRAND JURY FOREPERSON: Deputy Waananen, please
25 raise your right hand to be sworn.

26 Deputy Waananen, do you solemnly swear that the

1 evidence you shall give in this matter pending before the
2 grand jury shall be the truth, the whole truth, and
3 nothing but the truth so help you God?

4 THE WITNESS: I do.

5 GRAND JURY FOREPERSON: Thank you. Have a seat,
6 please.

7 **EXAMINATION**

8 BY MS. DUPRE-TOKOS:

9 Q. Good morning.

10 A. Good morning.

11 Q. Would you please state your full name and spell
12 your last name for the record.

13 A. Jay Waananen, W-a-a-n-a-n-e-n.

14 Q. And where are you employed and in what capacity?

15 A. I'm employed by the Butte County Sheriff's
16 Department as a deputy sheriff currently assigned to our
17 Boating Enforcement Unit and Marine Unit.

18 Q. And how long have you been with the Butte County
19 Sheriff's Office?

20 A. What is the date today? The 7th? Tomorrow will
21 be 28 years.

22 Q. Congratulations.

23 And have you been a sworn law enforcement
24 officer that entire time?

25 A. The entire time with Butte County, correct.

26 Q. And did you have any law enforcement experience

1 prior to that?

2 A. No. I started -- I went to the Butte College
3 Academy and started my first job here in Butte County.

4 Q. And were you assigned to assist with the Camp
5 Fire?

6 A. I was.

7 Q. In what capacity?

8 A. We were documenting where remains were found.

9 Q. So did you essentially go to every site that
10 remains were found?

11 A. Yes. My partner and I -- we have a piece of
12 equipment. To simplify it, it's like a surveying piece
13 of equipment that measures distances and everything. So
14 we would document where all the remains were found. We
15 went to every single case.

16 Q. And what's that piece of equipment called?

17 A. It is -- the name of it is a Trimble Scanner.

18 Q. What do most people call it?

19 A. A scanner. It's like a piece of surveying
20 equipment when you see road crews on the side of the road
21 with a tripod and they have that equipment and the guys
22 are measuring distances, the road department people. It
23 is essentially that, but it takes photographs and then it
24 takes digital measurements. And it lays it on top of
25 each other and then we can take, oh, a marker and mark
26 the exact location. And it gives elevation and

1 everything. It puts it into a computer program that we
2 could recreate at a later time if needed.

3 Q. Great. I'm going to probably jump around a
4 little bit on dates so please bear with me. But were you
5 doing that on November 17th, 2018?

6 A. November 17th, yes.

7 Q. And did you go to a residence at 2735 Eskin
8 Maidu Trail in Paradise on that date?

9 A. Yes, we did.

10 Q. Okay. Was that residence destroyed?

11 A. Yes, it was.

12 Q. Were human remains located at that residence?

13 A. Human remains were found, yes.

14 Q. And was a case number assigned to those remains?

15 A. Yes.

16 Q. Okay. Was that case number 18-19775?

17 A. Yes.

18 [Exhibit 1272 introduced
19 as evidence.]

20 BY MS. DUPRE-TOKOS:

21 Q. And in looking at Exhibit 1272, which is up on
22 the board but should also be in front of you, did you at
23 some point learn that this is a photograph of Gordon
24 Dise?

25 A. I did.

26 Q. And did you at some point learn that the remains

1 associated with the case number 18-19775 were those of
2 Gordon Dise?

3 A. Yes.

4 [Exhibit 1273 introduced
5 as evidence.]

6 BY MS. DUPRE-TOKOS:

7 Q. And looking at Exhibit 1273 can you tell us what
8 this is a picture of.

9 A. It's a picture of the residence on Eskin Maidu
10 Trail.

11 Q. Okay. And that's --

12 A. A burned residence.

13 [Exhibit 1274 introduced
14 as evidence.]

15 BY MS. DUPRE-TOKOS:

16 Q. Okay. And that was -- well, looking at 1274 can
17 you tell us what that's a photograph of.

18 A. That's a photograph of the remains that were
19 located at that property.

20 Q. So Mr. Dise's remains?

21 A. Mr. Dise's remains.

22 Q. Okay. And then did you on November 16th go to a
23 residence at 220 Berry Creek Drive in Paradise?

24 A. Yes.

25 Q. Was that residence destroyed?

26 A. Yes, it was.

1 Q. Were human remains located at that residence?

2 A. Yes, they were.

3 Q. And was a case number assigned to those remains?

4 A. A case number was assigned.

5 Q. Was that case number 18-19730?

6 A. Yes.

7 [Exhibit 1275 introduced
8 as evidence.]

9 BY MS. DUPRE-TOKOS:

10 Q. Looking at Exhibit 1275, did you at some point
11 learn that that is a photograph of Ethel Riggs?

12 A. I did.

13 Q. And did you at some point also learn that the
14 remains associated with case number 18-19730 were those
15 of Ethel Riggs?

16 A. Yes, I did.

17 [Exhibit 1276 introduced
18 as evidence.]

19 BY MS. DUPRE-TOKOS:

20 Q. In looking at Exhibit 1276 can you tell us what
21 that is a photograph of.

22 A. That is a burned-out residence.

23 Q. Okay. Do you know where -- would that be the
24 burned-out residence at 220 Berry Creek Drive?

25 A. 220 Berry Creek Drive, correct.

26 [Exhibit 1277 introduced

as evidence.]

BY MS. DUPRE-TOKOS:

Q. And then looking at Exhibit 1277 can you tell us what that is a photograph of.

A. This was a location where the remains were found.

Q. Okay. And when you say the remains, that would be the remains of 220 Berry Creek Drive?

A. Yes, it was.

Q. And then on November 15th, 2018, did you go to a residence at 6778 Ishi Drive in Magalia?

A. Yes.

Q. Okay. Was that residence destroyed?

A. Yes, it was destroyed.

Q. And were human remains located at that residence?

A. Human remains were found.

Q. Okay. Do you recall how many sets of remains?

A. I believe there were two at this location.

Q. And case numbers were assigned to those?

A. Yes, they were. Yes, it was.

Q. Was one of those case numbers 18-19704?

A. Yes.

Q. And was the other 18-19705?

A. Yes.

[Exhibit 1278 introduced

1 as evidence.]

2 BY MS. DUPRE-TOKOS:

3 Q. Looking at Exhibit 1278, did you at some point
4 learn that this is a photograph of Kathy Shores?

5 A. I did learn that.

6 [Exhibit 1279 introduced
7 as evidence.]

8 BY MS. DUPRE-TOKOS:

9 Q. And then Exhibit 1279 did you at some point
10 learn that is a photograph of Donald Shores?

11 A. I did.

12 Q. Did you at some point learn that the remains
13 associated with case number 18-19704 were those of Kathy
14 Shores?

15 A. Yes.

16 Q. And did you at some point learn that the remains
17 associated with case number 18-19705 were those of Donald
18 Shores?

19 A. I did, yes.

20 [Exhibit 1280 introduced
21 as evidence.]

22 BY MS. DUPRE-TOKOS:

23 Q. In looking at Exhibit 1280 can you tell us what
24 that is a photograph of.

25 A. That is the burned-out property.

26 Q. On Ishi Drive?

1 A. On Ishi Drive.

2 [Exhibit 1281 introduced
3 as evidence.]

4 BY MS. DUPRE-TOKOS:

5 Q. And then Exhibit 1281. Can you tell what that
6 is a photograph of.

7 A. That was the location of the remains.

8 Q. Of Kathy and Donald Shores?

9 A. Kathy and Donald. I believe they were fairly
10 close together, yes.

11 Q. And then did you on November 15th go to a
12 residence at 6284 Woodbury Drive in Magalia?

13 A. Yes, I did.

14 Q. Okay. Was that residence destroyed?

15 A. Yes, it was destroyed.

16 Q. Were human remains located at that home?

17 A. And human remains were found at that property.

18 Q. Was a case number assigned to those remains?

19 A. A case number was assigned.

20 Q. Is that case number 18-19550?

21 A. Yes, it was.

22 [Exhibit 1282 introduced
23 as evidence.]

24 BY MS. DUPRE-TOKOS:

25 Q. Looking at Exhibit 1282 did you at some point
26 learn that that's a photograph of James Garner?

1 A. Yes, I did.

2 Q. And did you at some point learn that the remains
3 associated with case number 18-19550 were those of James
4 Garner?

5 A. I did.

6 [Exhibit 1283 introduced
7 as evidence.]

8 BY MS. DUPRE-TOKOS:

9 Q. And looking at Exhibit 1283 can you tell us what
10 that's a photograph of.

11 A. That's the burned property on --

12 Q. Woodbury Drive?

13 A. Woodbury Drive. Sorry.

14 [Exhibit 1284 introduced
15 as evidence.]

16 BY MS. DUPRE-TOKOS:

17 Q. And then looking at Exhibit 1284 can you tell us
18 what that is a photograph of.

19 A. That was where the remains were found on the
20 property.

21 Q. And by property you mean the one on Woodbury
22 Drive?

23 A. The property on Woodbury Drive.

24 Q. Okay. And then November 17, 2018, did you go to
25 a residence or property at 4238 Schwyhart Lane in Concow?

26 A. I did.

1 Q. Was there a residence of any type on that
2 property?

3 A. I believe it was a trailer.

4 Q. Okay. A trailer or possibly a fifth-wheel?

5 A. Like a -- I think it was a small trailer.

6 Q. Okay. A travel trailer?

7 A. It could have been a fifth-wheel, but it wasn't
8 a residence. I believe he lived in it.

9 Q. Okay. And was that trailer or fifth-wheel
10 destroyed?

11 A. Yes, it was.

12 Q. Were human remains located at that property?

13 A. Yes, they were.

14 Q. Was a case number assigned to those remains?

15 A. A case number was assigned.

16 Q. And was that 18-19753?

17 A. Yes, it was.

18 [Exhibit 1285 introduced
19 as evidence.]

20 BY MS. DUPRE-TOKOS:

21 Q. Looking at Exhibit 1285 did you at some point
22 learn that that's a photograph of Richard Garrett?

23 A. I did learn that.

24 Q. And at some point did you also learn that the
25 remains associated with case number 18-19753 were those
26 of Richard Garrett?

1 A. I did.

2 [Exhibit 1286 introduced
3 as evidence.]

4 BY MS. DUPRE-TOKOS:

5 Q. In looking at Exhibit 1286 can you tell us what
6 that's a photograph of.

7 A. That's a photograph of the burned property or
8 trailer. And in the distance the tape is where the
9 subject or the decedent was found.

10 [Exhibit 1287 introduced
11 as evidence.]

12 BY MS. DUPRE-TOKOS:

13 Q. Okay. So looking at 1287 --

14 A. Oh, there it is.

15 Q. -- is that --

16 A. Yes.

17 Q. So that's a picture of where the decedent was
18 found?

19 A. Yes, like he fled the trailer. He was found
20 out --

21 Q. Out back?

22 A. -- between the trees.

23 Q. Okay. And then on November 16th, 2018, did you
24 go to 13554 Andover Drive in Magalia?

25 A. I did.

26 Q. Was that residence destroyed?

1 A. Yes, it was.

2 Q. And were human remains located at that
3 residence?

4 A. Yes, they were.

5 Q. Was a case number assigned to those remains?

6	A. A case number was assigned.
---	--------------------------------

7 Q. Was that case number 18-19737?

8	A. Yes.
---	---------

9	[Exhibit 1288 introduced
0	as evidence.]

11 BY MS. DUPRE-TOKOS:

12 Q. At some point did you learn -- looking at
13 Exhibit 1288, did you at some point learn this is a
14 photograph of Gary Hunter?

15 A. I did learn that.

16 Q. And at some point did you also learn that the
17 remains associated with case number 18-19737 were those
18 of Gary Hunter?

19	A. I did.
----	-----------

20 [Exhibit 1289 introduced
21 as evidence.]

22 BY MS. DUPRE-TOKOS:

23 Q. Looking at Exhibit 1289 can you tell us what
24 that's a photograph of.

25 A. It's a burned property on Andover Drive.

26 [Exhibit 1290 introduced

as evidence.]

BY MS. DUPRE-TOKOS:

Q. And then looking at Exhibit 1290 can you tell what that is a photograph of.

A. It's the location where the remains were found on Andover.

Q. And then on November 12, 2018, did you go to a residence at 5303 Sawmill Road in Paradise?

A. Yes, I did.

Q. Was that residence destroyed?

A. Yes, it was.

Q. And were human remains located at that residence?

A. Yes, they were.

Q. Was a case number assigned to those remains?

A. A case number was assigned.

Q. Was that 18-19595?

A. Yes, it was.

[Exhibit 1291 introduced
as evidence.]

BY MS. DUPRE-TOKOS:

Q. In looking at Exhibit 1291 did you at some point learn that the female in this photograph was Phyllis Salazar?

A. I did.

Q. And did you at some point learn the remains

1 associated with case number 18-19595 were those of
2 Phyllis Salazar?

3 A. I did learn that.

4 Q. And do you recall if Ms. Salazar was found
5 inside or outside of the residence, if you recall?

6 A. I can't say for sure, but I believe she was
7 inside. Yeah, she was inside. Yes, she was.

8 Q. Okay. And then on November 11th, 2018, did you
9 go to 5577 Heavenly Place in Paradise, California?

10 A. Yes, I did.

11 Q. Was that residence destroyed?

12 A. It was destroyed.

13 Q. Were human remains located there?

14 A. Yes, they were.

15 Q. How many sets?

16 A. I believe there were two sets at this location.

17 Q. Okay. Were they commingled?

18 A. They were close together. That was determined
19 after the fact. I believe they were but --

20 Q. Okay. Were case numbers assigned to both of
21 their remains?

22 A. A case number was assigned.

23 Q. Was one of those 18-19573?

24 A. Yes.

25 Q. Was the other case number 18-19566?

26 A. Yes.

1 [Exhibit 1292 introduced
2 as evidence.]

3 BY MS. DUPRE-TOKOS:

4 Q. In looking at Exhibit 1292 did you at some point
5 learn that that's a photograph of Barbara Carlson?

6 A. Yes, I did.

7 Q. Did you at some point learn that the remains
8 associated with case number 18-19573 were those of
9 Barbara Carlson?

10 A. Yes, I did.

11 [Exhibit 1293 introduced
12 as evidence.]

13 BY MS. DUPRE-TOKOS:

14 Q. And then looking at Exhibit 1293 did you at some
15 point learn that that's a photograph of Shirley Hayley?

16 A. Yes, I did.

17 Q. At some point did you learn that the remains
18 associated with case number 18-19566 were those of
19 Shirley Hayley?

20 A. Yes.

21 [Exhibit 1294 introduced
22 as evidence.]

23 BY MS. DUPRE-TOKOS:

24 Q. Looking at Exhibit 1294 can you tell us what
25 that is a photograph of.

26 A. That was the address of 15 -- or I mean 5577 --

1 Q. Heavenly?

2 A. -- Heavenly, the burned property.

3 [Exhibit 1295 introduced
4 as evidence.]

5 BY MS. DUPRE-TOKOS:

6 Q. And then looking at Exhibit 1295 can you
7 actually tell us what that photograph is of.

8 A. The remains that were found on that property of
9 Heavenly.

10 Q. Okay. Of Barbara Carlson and Shirley Hayley?

11 A. Yes.

12 Q. On November 16th, 2018, did you go to a
13 residence at 5683 Scotty Lake Drive in Paradise?

14 A. Yes, I did.

15 Q. Was that residence destroyed?

16 A. Yes, it was.

17 Q. Were human remains located there?

18 A. Yes, they were.

19 Q. Were case numbers assigned to those remains?

20 A. A case number was assigned.

21 Q. Was that case number 18-197 -- hang on. I have
22 19595.

23 A. Yes.

24 MS. DUPRE-TOKOS: Can we have a moment.

25 [Conferring off the record.]

26 MR. NOEL: Sorry. We found a typo of the case

1 number that's on the slide in the PowerPoint.

2 BY MS. DUPRE-TOKOS:

3 Q. Okay. Was the case number assigned to the
4 remains that were located at 5683 Scotty Lake Drive
5 18-19735?

6 A. Yes. That's not what it says.

7 MR. NOEL: For the record, the correct number in
8 your PowerPoint should be 19735, not 595.

9 [Exhibit 1296 introduced
10 as evidence.]

11 BY MS. DUPRE-TOKOS:

12 Q. And looking at Exhibit 1296 did you at some
13 point learn that that was a photograph of Jennifer Hayes?

14 A. I did.

15 Q. And at some point did you learn that the remains
16 associated with case number 18-19735 were those of
17 Jennifer Hayes?

18 A. Yes, I did.

19 [Exhibit 1297 introduced
20 as evidence.]

21 BY MS. DUPRE-TOKOS:

22 Q. Can you see Exhibit 1297. What is that a
23 photograph of?

24 A. Those are the remains that were found on Scotty
25 Lake Drive.

26 MS. DUPRE-TOKOS: I have nothing further.

1 Do the jurors have any questions?

2 And that slide does have the correct case
3 number.

4 Okay. Deputy Waananen, you just need an
5 admonition from madam foreperson and you'll be all set to
6 go.

7 GRAND JURY FOREPERSON: Deputy Waananen, you are
8 admonished not to discuss or disclose at any time outside
9 of this jury the questions that have been asked of you or
10 your answers until authorized by this grand jury or the
11 Court. A violation of these instructions on your part
12 may be the basis for a charge against you of contempt of
13 court. This does not preclude you from discussing your
14 legal rights with your own attorney.

15 Deputy Waananen, what I have just said is a
16 warning not to discuss this case with anyone except the
17 Court, your lawyer, or the district attorney.

18 Do you have any questions?

19 THE WITNESS: I do not.

20 GRAND JURY FOREPERSON: Thank you for your time
21 today.

22 THE WITNESS: Thank you.

23 MR. NOEL: Don't leave with the exhibits. We
24 have had that happen before.

25 [Pause in proceedings.]

26 MS. DUPRE-TOKOS: We might as well just take a

1 five-minute break.

2 GRAND JURY FOREPERSON: Okay.

3 [Break taken from
4 11:00 to 11:10 a.m.]

5 MR. NOEL: So are we ready to go?

6 GRAND JURY FOREPERSON: We re ready to proceed.
7 All members of the grand jury are present, and we're
8 ready to proceed. We're ready.

9 [Witness enters the courtroom.]

10 GRAND JURY FOREPERSON: (WITNESS #5), I'd like
11 to remind you that you're still under oath.

12 THE WITNESS: Thank you.

13 GRAND JURY FOREPERSON: Thank you.

14 **EXAMINATION CONTINUED**

15 BY MR. NOEL:

16 Q. All right. Thank you for your patience so we
17 can get those short witnesses out of the way before
18 bringing you back.

19 All right. When we left off, we were talking
20 about the representations that were made and the Advance
21 Authorization by you compared to when you were asked by
22 Mr. Cannel about the condition of the line.

23 Do you recall that?

24 A. I'm familiar with what is on the board, yes.

25 Q. Okay. So I guess where I was going when we left
26 off is when you filled out especially the initial Advance

1 Authorization where you used terms like "dilapidated" and
2 "failure is imminent," were you representing to your
3 supervisors -- when you say that was just verbiage, are
4 you saying that you were representing to the people in
5 charge of administering this fund that you were making
6 representations that you had no basis for?

7 A. So if I may explain, I think it's more of how
8 things are generally written to describe a worse case
9 scenario in order to get initial funding to investigate a
10 project and make sure it's a viable project.

11 Q. Okay. But you were applying for funds from a
12 project fund that was entitled "Deteriorated Transmission
13 Equipment Replacement Program." The title would imply
14 that that was a fund dedicated to replacing deteriorating
15 transmission assets, but that wasn't necessary true;
16 correct?

17 A. No. That fund could be -- the title of that
18 fund could be changed tomorrow, you know, back then.
19 That title could be whatever Asset Management wants it to
20 be.

21 Q. Right. And so the title has nothing to do with
22 the goal of the project or the fund; correct?

23 A. Correct.

24 Q. In your experience, in your 34 years with PG&E,
25 is that common?

26 A. It's common that they move pots of money around

1 to other identified capital projects within that
2 five-year plan.

3 Q. Well, I mean, is it common -- was it common in
4 your experience that PG&E would create these programs
5 with these great sounding names like Deteriorating
6 Transmission Asset Fund or Aging Infrastructure
7 Initiative or, you know, Aging Tower Replacement Fund?
8 Was it common in your experience that PG&E would create
9 things like that where the name of the fund or the
10 project didn't necessarily reflect what the project was
11 actually to do?

12 A. So there's -- I'm not sure how to answer that.

13 Q. Well, this is the Deteriorating Transmission
14 Asset Replacement Fund, but you're telling us that to get
15 money for that fund for a project it didn't necessarily
16 have to be a deteriorating transmission asset?

17 A. That's correct as long as it would be a capital
18 project. It didn't matter the names of those other pots
19 because those actually rolled up another level.

20 Q. Okay. You just had to check the correct boxes
21 on an application and use the correct terms like
22 "deteriorating" and "failing" whether you had basis for
23 that or not?

24 A. I can't answer that. I didn't do that many AAs.
25 Actually, it wasn't in my line of business. I was asked
26 to help out because project management workload was full.

1 Q. Okay. Well, then why did you feel it necessary
2 to use verbiage such as "dilapidated" and "failure is
3 imminent" when you were filling out your AA?

4 A. Again, it's just words. It's just writing a
5 story to get some initial funding to see if it's a valid
6 project or not. It wasn't "Here's this order we need to
7 move full force ahead on."

8 Q. Right. But why that specific verbiage?

9 A. I couldn't tell you. I come up with stuff all
10 the time.

11 Q. Okay. And then you redid the ultimate AA that
12 was approved. You used terms like "deteriorated
13 structures" when you were describing this section of the
14 Caribou-Palermo line. Is that just verbiage?

15 A. Well, it's what I was told to write by, I
16 believe --

17 Q. Keith Williams?

18 A. Keith Williams, yes.

19 Q. Okay. So the person who was -- the first-level
20 person in charge of reviewing this and approving this
21 project was telling you how to write this project?

22 A. Sure. That was common.

23 Q. All right. And this Keith Williams, he was
24 someone who was in charge of administrate or -- I can't
25 think of the phrase I was looking for but, you know,
26 determining what kinds of projects got approved for

1 funding in the Deteriorated Transmission Asset
2 Replacement Program?

3 A. He would have been the person that helped decide
4 what projects under Major Work Category 70 move forward
5 on.

6 Q. Now, you said he was, you believe, the person
7 who told you about the Deteriorating Transmission Asset
8 Replacement Program to start with; correct?

9 A. Yes. He said he had some money in this
10 particular program if anybody had anything that they
11 wanted to spend it on. And if not, the money would be
12 moved to another program.

13 Q. Did he specify in that that the projects had to
14 be to replace aging deteriorating transmission assets?

15 A. No. It was to replace capital assets, period,
16 whether it was deteriorating or not.

17 Q. And he was the one who assisted in your filling
18 out the AA and describing the project you were nominating
19 so that it would get funding?

20 A. So, I mean, I don't recall exactly, but the
21 people that were involved in this was -- gosh, Keith
22 Williams, John Culbertson, and (EMPLOYEE #3). So it's
23 combined efforts to get some initial funding approved to
24 again see if it's a viable project.

25 Q. To your knowledge, did Keith Williams have any
26 personal knowledge of the Caribou-Palermo line?

1 A. Personal knowledge? I couldn't answer that.

2 Q. Okay.

3 A. I'm sure he's seen reports but not hands-on
4 personal.

5 Q. All right. So the program -- the project is
6 basically cancelled in 2010; correct?

7 A. I couldn't tell you the year. I don't know.

8 Q. Okay. At some point does the program -- the
9 project come back to you?

10 A. Yeah, it comes back to me to do a small portion
11 of the line for improvements and to try to settle the
12 cost to the right assets.

13 Q. All right. And what do you mean "settle the
14 cost to the right assets"?

15 A. Since the project cancelled, are there any
16 identifying elements of that -- of the work done to date
17 that can be placed into a capital improvement asset?

18 Q. Okay. So anything that was accomplished that
19 could be passed off to the rate payers?

20 A. I don't know how much of it passed off to the
21 rate payers, but a capital job is a capital job.

22 Q. Do you know the difference between a capital job
23 and an expense job in terms of where the money comes
24 from?

25 A. It's simplified, but there's much more depth to
26 it.

1 Q. Okay. So can you explain to us how you settled
2 the money spent on this project out?

3 A. Well, we completed a whole new road. So that's
4 a capital improvement. And I knew the rough dates that
5 the road was done and the people that worked on it and
6 the contractors that worked on it. So pulled those costs
7 out, itemized them, and e-mailed the financial people
8 "Hey, here's a way we can capitalize the road aspect of
9 this." And then any work that was done on replacing the
10 insulators, those could come out and go to another asset
11 for capital work.

12 And the only thing left on the job would have
13 been initial engineering that was 100 percent related
14 to -- if the new -- if new towers were to be stalled, the
15 engineering on that. So I separated out work classes and
16 categories and --

17 Q. Okay. Do you recall how much was charged off to
18 this road?

19 A. I don't recall, no.

20 Q. \$588,000 sound about right?

21 A. Okay. I don't recall. I mean, you're reading
22 through stuff; right?

23 Q. Yeah.

24 Where was this road built?

25 A. Across the river where the new line would have
26 went adjacent to some existing 230 lines, Caribou-Table

1 Mountain, and -- I don't know the other line name.

2 Q. So in the end money from the Deteriorating
3 Transmission Asset Replacement Program that was funded so
4 the Caribou-Palermo which was actually used to build an
5 access road for the Caribou-Palermo?

6 A. No, that's not true.

7 Q. Isn't that how it ended up in the end?

8 A. No.

9 Q. Okay. Where was that access road?

10 A. Where was what?

11 Q. The access road that all this money was spent
12 on, where was it built?

13 A. Adjacent to the Caribou-Palermo line.

14 Q. And did that benefit the Caribou-Palermo line in
15 any way?

16 A. No, but what you're messing is, if I may
17 explain, the money that went to the road got transferred
18 in a whole different planning order level and Major Work
19 Category level. It's got nothing to do with money that
20 actually sat in a deteriorated facility after things
21 settled down.

22 Q. Right. But that money was originally allocated
23 for improvements on the 100-year-old Caribou-Palermo line
24 that never occurred; right?

25 A. Not -- not when everything settled down, that's
26 not correct.

1 Q. I'm talking about the original.

2 A. It doesn't --

3 Q. Not the ledgers afterwards but when you're going
4 back and settling it out. Originally, the money that was
5 spent was spent on a project that you applied for money
6 for the Deteriorating Transmission Asset Replacement Fund
7 to improve the 100-year-old Caribou-Palermo. That money
8 was spent to essentially build an access road for the
9 Caribou-Table Mountain; correct?

10 A. It was built as an access road to make the new
11 Caribou-Palermo line section. And since that day it also
12 benefited at that time the Caribou-Palermo and the
13 other -- I'm sorry, the Caribou-Table Mountain and the
14 other adjacent line.

15 So since the Caribou-Palermo got cancelled, all
16 the money and assets of the dollars that were spent came
17 out of a road budget. A totally different pot.

18 Q. Okay.

19 A. And any money that would have originally been
20 spent under that initial Caribou line got replenished
21 when the transfer occurred.

22 Q. I guess that's a good question. If that money
23 got replaced, where did that money come from?

24 A. From the road budget from Major Work
25 Category 71. When you do a journal entry, you're moving
26 dollars from one pot to another pot.

1 Q. Right. Okay. So in 2007 you applied for money
2 from the Deteriorating Transmission Asset Replacement
3 Fund to do a job to replace the deteriorating,
4 dilapidated, going-to-fail Caribou-Palermo. And that
5 ultimately gets cancelled; correct?

6 A. Caribou -- the line section that I applied for
7 got cancelled because after an inspection was done, it
8 was determined that the towers were sound enough to be
9 left alone.

10 Q. Who did that inspection?

11 A. It would have been the tower department.

12 Q. And would there have been records of that
13 inspection?

14 A. I have no direct knowledge. I've never seen
15 them.

16 Q. Okay. So then there's the -- you've seen the
17 e-mail exchange that you were part of between Doug Cannel
18 and (WITNESS #15). And (WITNESS #15) says "You can't
19 cancelled this. How is it going to look if those towers
20 fall off into the canyon?" Correct?

21 A. That's what that e-mail says.

22 Q. And he says it twice in two different e-mails;
23 right?

24 A. I don't recall but . . .

25 Q. Two years later in 2012 were you involved with
26 the collapse of the towers?

1 A. No, not directly.

2 Q. Okay. Were you involved indirectly?

3 A. Yeah. I went and looked and seen what took
4 place and the damage.

5 Q. How did it feel that two years after the
6 statement about towers falling off into the canyon and
7 now you have six towers that are -- or five towers
8 falling off into the canyon?

9 A. What do you mean how did it feel? I don't
10 understand that.

11 Q. I mean --

12 A. There's no feeling for me on that.

13 Q. Did anybody point up and say "This is kind of
14 what we warned you about"?

15 A. No.

16 [Exhibit 1300 introduced
17 as evidence.]

18 BY MR. NOEL:

19 Q. Okay. All right. I have up in front of you
20 1300. This is -- do you recognize this e-mail chain?

21 A. Somewhat.

22 Q. Okay. This is an e-mail from October of 2013.
23 And specifically, I want to --

24 Can you read for us your October 30th, 2013,
25 e-mail?

26 A. "I think we may have too many Caribou-Palermo

1 jobs and we are getting confused. The Planning Order
2 that Clint references below was created back on 9/14/12
3 and is for the old (WITNESS #15) job for relocating
4 towers 7/55 through 8/64 job number 30606109. It has
5 nothing to do with the towers that fell over during last
6 winter back on 12/21/12 under 30967455 under Major Work
7 Category 92 and in the subject matter above.

8 I do not believe there was a PO created under
9 Major Work Category 70 yet for that replacement project
10 that is now sitting on wood poles and was not intended
11 for long-term reliability."

12 Q. All right. A couple of things. Do you remember
13 how many were too many Caribou-Palermo jobs?

14 A. My guess is, like, between -- well, okay. So
15 when I'm referring to this, there is other
16 Caribou-Palermo projects --

17 Q. Okay.

18 A. -- going on throughout that line. And each one
19 of those projects has its own order number. But what I'm
20 stating here, I believe, was just that relocation section
21 had five to seven order numbers already.

22 Q. Okay. Can you explain that to us, please, how
23 that has five to seven order numbers.

24 A. The order number I initially pulled for the
25 planning order to -- I mean, excuse me, the Advance
26 Authorization to be tied to. When it went to project

1 management, they have their order number and creation
2 policies and format. PG&E went through a SAP Program
3 upgrade and so it automatically generated another order.
4 And then there was an order created for the road, an
5 order created for the insulator replacement.

6 Q. Okay. All right. And then it says "The PO that
7 Clint references below was created back on 9/14/12 and
8 it's the old (WITNESS #15) job for relocating the towers
9 30606109."

10 So what was created on 9/14/12?

11 A. I don't know because I'm not seeing a PO number
12 on what you have in front of me.

13 Q. Okay. And then "It has nothing to do with the
14 towers that fell over during last winter back on 12/21."
15 And that gives a number 30967455; correct?

16 A. Yes.

17 Q. All right. And then it says "I do not believe
18 there was a PO created under MWC 70 yet for that
19 replacement project." What does that mean?

20 A. So the emergency work that was done on the five
21 towers that fell down --

22 Q. Okay.

23 A. -- was done under Major Work Category 92
24 emergency. And nothing was created, when I was looking
25 through stuff, to replace that temporary wood pole line
26 back with a permanent transmission line which would have

1 been done under Major Work Category 70 or tower
2 replacements.

3 Q. Okay. So the shoofly is the 30967455. Am I
4 reading --

5 A. The clean-up of the failure.

6 And to go back on the shoofly, I don't know if
7 that was the exact number, but that was what that's
8 referring to.

9 Q. Okay. And then there needs to be a new PO
10 number created for the actual replacement of the towers
11 that fell down?

12 A. Yeah, a new -- so a PO is just again a holding
13 pot. Like, you can have several order numbers under it.

14 Q. Okay.

15 A. But there was no PO for project management on
16 Major Work Category 70 to replace the wood with steel.

17 Q. So ten months after the towers fell down and
18 there still isn't a project to replace those towers?

19 A. It's nothing to do with me.

20 Q. That's why I'm asking. Am I reading that
21 correctly?

22 A. And it doesn't matter because it was on a good
23 reliable shoofly. Shooflies have been known to be in
24 place for years.

25 Q. But you say right here it was not intended for
26 long-term reliability.

1 A. Right.

2 Q. So the shoofly wasn't intended for long term?

3 A. One to five years is not long term.

4 Q. Okay. Wasn't the shoofly built only as a patch
5 until the spring when allegedly people would be able to
6 get in and permanently fix it?

7 A. Can't answer that. It wasn't my project.

8 [Exhibit 1268 introduced
9 as evidence.]

10 BY MR. NOEL:

11 Q. Okay. Well, then we have 1268 here. Do you
12 recognize this e-mail?

13 A. Yeah.

14 Q. Okay. And this is an e-mail from you to Henry
15 Ho?

16 A. Yeah. The last part of it, yeah. The top part?

17 Q. Yeah.

18 A. Yeah.

19 Q. Okay. And this is where Henry Ho explains --
20 this e-mail 1268 is where Henry Ho explains what caused
21 the towers to fall down?

22 A. Yes.

23 Q. And your response is "Well, after reviewing the
24 write-up and all of the evidence myself, I will accept
25 your theory."

26 A. It was a thing between him and I that we had

1 different beliefs on why those failed.

2 Q. Okay. Now, although your title is M&C
3 engineering, you weren't an engineer; correct?

4 A. That's correct.

5 Q. You didn't go to school? You don't have any
6 engineering degree?

7 A. No, I don't.

8 Q. You're not a licensed engineer; correct?

9 A. That's correct. Never been.

10 Q. Okay. But Henry Ho is an engineer?

11 A. Yes.

12 Q. Why do you think those towers fell?

13 A. Well, from what I saw out there, a bolder came
14 down and smashed one of them and then that's what caused
15 the uplift on the other footing. It was initiated by a
16 boulder because there was evidence of a boulder or rocks
17 on the top portion of the tower laying on the hill. And
18 that's the only way it could have been marked up. It was
19 not -- the tower didn't flip over or anything like that.
20 It was leaning down. There was a void above where a rock
21 slide was, and that's my -- it was my opinion in the
22 field.

23 Q. Okay. But the expert came in and said "No,
24 there was no bolder."

25 A. Well, that's why I replied to him like that
26 because it was a thing between him and I. We both have

1 mutual respect for each other's knowledge. And sometimes
2 he's wrong and sometimes he's right.

3 [Exhibit 1301 introduced
4 as evidence.]

5 BY MR. NOEL:

6 Q. Okay. All right. Let's move on to 1301. Do
7 you recognize 1301?

8 A. Yes.

9 Q. What is 1301?

10 A. It's an e-mail to the Table Mountain T-line
11 personnel that engineering has determined that on the
12 following towers this is the scope of work that needs to
13 be done to help insure that the reliability through that
14 section that (EMPLOYEE #3) had originally a question was
15 made sound and that helped reduce the chance of any
16 emergencies through that inaccessible area.

17 Q. Okay. So (WITNESS #18) and (WITNESS #12) are
18 the Table Mountain T-line people you're talking about?

19 A. Yes.

20 Q. And the subject to this is "Caribou-Palermo
21 Towers." And start off where it says "Looks like we will
22 be forced into trying to capture the \$650K plus/minus
23 that has been spent on the now cancelled project for
24 relocating Towers 6/53 to 7/65 from the non-accessible
25 river side to the highway side that (WITNESS #15)/Rich
26 Pettingill was managing."

1 All right. What do you mean that you were being
2 forced into trying to capture?

3 A. Meaning it left project manager's hand and left
4 a potential contractor doing that work. Now, it became
5 my mess to clean up and Table Mountain T-line's
6 responsibility to install the engineering requested --
7 engineering suggested materials so we could finally close
8 the job and put it to bed.

9 Q. Okay. All right. So then it says "In order to
10 not have to expense the dollars we spent, we will be
11 required to perform the following work." And the first
12 one is a new suspension insulator assembly for Towers
13 7/56, 7/57, 7/58 with eight bells of corrosion resistant
14 ceramic insulators PG&E Code 31-4125. Hardware assembly
15 per drawing 056414 type SA."

16 So what does that mean?

17 A. It means on those three towers we need to put
18 new insulators and hardware per that material code and
19 suggested engineering drawing.

20 Q. Okay. Why?

21 A. Why?

22 Q. Yeah. Why?

23 A. That's just what engineering came up with. Like
24 I just stated earlier, it's to help insure (EMPLOYEE
25 #3)'s suspectability that there could be a failure in
26 that. So since it's inaccessible, let's go ahead and put

1 these insulators in. And then we can also capture
2 this -- a portion of this as a capital project.

3 Q. Right. It starts off with "In order to not have
4 to expense the dollars --" Correct?

5 A. Yeah, that's what it says.

6 Q. And so that means that you're trying to find
7 capital projects for the money that has already been
8 spent; correct?

9 A. Trying to find -- yes. That's common.

10 Q. Right. So you're trying to capitalize it so it
11 comes out of this pot over here on the left instead of
12 this pot over here on the right; correct?

13 A. Correct.

14 Q. And the basis of that is it comes out of the
15 rate payers what you can get from FERC as opposed to out
16 of the profits; right?

17 A. I don't know that verbatim.

18 Q. Okay. So it seems to me that this list of
19 things that you're doing on the Caribou-Palermo line
20 you're only doing it so that you can capitalize it, not
21 because it's necessary.

22 A. It -- it helped mitigate a T-line supervisor's
23 concern. And by me not seeing the inspection reports I
24 don't know what was found. This is engineering reviewing
25 those inspection reports and coming up with this
26 subjected scope of work.

1 Q. Okay. So you have no idea whether this is
2 necessary or not? You're just doing this because you
3 were told to do it?

4 A. Correct.

5 Q. And the only reason you know is so that it can
6 be capitalized as opposed to expensed?

7 A. Correct.

8 [Exhibit 1302 introduced
9 as evidence.]

10 BY MR. NOEL:

11 Q. Okay. All right. Let's move on to 1302. Do
12 you see 1302 up there?

13 A. Yeah.

14 Q. All right. And this is some more e-mails or an
15 e-mail string between you and somebody named John
16 Culbertson in April of 2014 or from -- starting in
17 November of '13 and going to April '14.

18 All right. See that? Recognize it?

19 A. Yeah.

20 Q. Okay. We're going to go backwards because we
21 read these from the front -- from back to front. So
22 we're going to go to page 3 and the e-mail that starts
23 off.

24 Who is Rich Pettingill?

25 A. He would have been the project manager after
26 (WITNESS #15).

1 Q. Okay. Who is John Culbertson?

2 A. Someone in the Asset Management group.

3 Q. And back down on the signature line Rich
4 Pettingill. It says he's a CPA. So he's an accountant?

5 A. No. He's a project manager. He might have
6 degrees in that area, but that's --

7 Q. Okay. And his e-mail starts out -- it says "I'm
8 nearing the end of getting this scope approved. The
9 question I received is what is the EDRO? John, do you
10 have a budget next year to do this work?

11 (WITNESS #5) assuming we have budget, what
12 should I put as the EDRO?"

13 What is the EDRO?

14 A. Estimated date released to operations.

15 Q. What does that mean?

16 A. When are you estimating you will have the work
17 completed?

18 Q. Okay. And then your response to him is on
19 November 19. "If there is budget, 11/15/14." Can you
20 explain that.

21 A. If there's funds available to re-insulate,
22 that's when we'll try to have it done by.

23 Q. Okay. And this is referring to the
24 Caribou-Palermo insulator replacement project now;
25 correct?

26 A. Yes.

1 Q. All right. And then he responds back "(WITNESS
2 #5), the engineering and materials cost estimate to
3 complete this work is \$60,000. How much should I put in
4 for PM and construction?"

5 Can you explain that.

6 A. It looks to me like he got a quote from
7 engineering how much time it would take them to make that
8 punch list that was on the other e-mail and the cost of
9 the materials purchased.

10 Q. And then up above the very top "My rough guest
11 in this terrain would be \$275,000 for the 13 tower
12 locations."

13 A. Yeah, I wrote that.

14 Q. So how is it now 13 towers?

15 A. It's a scope engineering determined.

16 Q. Okay. All right. Now we're onto page 2, I
17 believe. Or did I skip it? There we go. Page 2. And
18 then on Wednesday, November 20th you said "That puts this
19 whole thing over \$1 million, doesn't it? With the --"
20 something that doesn't translate apparently "-- already
21 incurred."

22 Do you know what you were talking about there?

23 A. The dollars that would have been in the project
24 as a whole before it's separated out to the individual
25 components.

26 Q. All right. And then he responds -- Pettingill

1 responds "Sure does. Those are some very expensive
2 insulators."

3 And then can you read us your response to that.

4 A. "Hope you don't think I'm trying to throw a
5 monkey wrench into your scope change. But if I remember
6 right, (WITNESS #15) spent a lot of money on having
7 enough roads put in for where the new line was going to
8 be installed. Wouldn't we be better off as a company to
9 make the roads that were put in the unit of plant and
10 just close out the job that was -- or that way -- the way
11 it currently is? We can still plan on doing the
12 insulator work and moving forward, but I think we should
13 just close out this order as all road work and surveys.
14 I can pull a totally different order number under the
15 correct planning order for the insulator work.

16 Your thoughts."

17 Q. And then he responds "I think all of that will
18 need to be handled in project re-authorization."

19 A. Yeah.

20 Q. So now you have to get this whole thing
21 re-authorized?

22 A. I don't. I'm not the project manager.

23 Q. Oh, and then it goes on to further discuss that,
24 and it talks about LIDAR. And if we could go up here to
25 the next response that starts with "We used --"

26 Can you read that to us and explain to us what

1 that means.

2 A. "We used the LIDAR so we knew exactly where our
3 roads should be installed with all of the side hill
4 contours out there. LIDAR sure isn't needed for the
5 insulator replacements. It's trying to make this
6 simplified and stop the AFUDC charges and start with a
7 clean slate. There shouldn't be anyone left in the
8 system that would question us settling the costs to date
9 to ETP359000 Roads and Trails."

10 Q. So what are you talking about here? Can you
11 explain it to us.

12 A. Well, it's kind of what I explained earlier by
13 splitting off all these different order numbers and
14 transferring the dollars to the proper assets that were
15 installed.

16 Q. So what is LIDAR?

17 A. LIDAR is a flyover with an airplane and you take
18 contour shots of the ground.

19 Q. Okay. So are they trying to charge the LIDAR to
20 the insulator project?

21 A. No.

22 Q. Okay. All right. Let's move on to the next
23 exhibit.

24 THE WITNESS: I need to take a break for a
25 second.

26 MR. NOEL: Okay. Madam Foreperson.

1 GRAND JURY FOREPERSON: Yes. Okay.

2 MR. NOEL: You should be admonished. And do we
3 want to break for lunch or do we want to push through
4 with him? Everybody good? Okay.

5 GRAND JURY FOREPERSON: Push through.

6 MR. NOEL: All right. Go ahead.

7 [Recess taken from 11:53 a.m.
8 until 12:00 p.m.]

9 GRAND JURY FOREPERSON: Okay. All members of
10 the grand jury are present and ready to proceed back from
11 break.

12 BY MR. NOEL:

13 Q. All right. (WITNESS #5), you had an opportunity
14 to go out and consult with your attorney?

15 A. Yes.

16 [Exhibit 1303 introduced
17 as evidence.]

18 BY MR. NOEL:

19 Q. Okay. All right. Moving on to Exhibit 1303.
20 Do you see 1303?

21 A. Okay.

22 Q. Do you recognize 1303?

23 A. Somewhat.

24 Q. This is another e-mail string from July of '14
25 between you and somebody named (EMPLOYEE #16) and
26 (WITNESS #12) and (WITNESS #21).

1 A. Well, that's all Table Mountain T-line people.

2 Q. Okay. So let's start at the bottom and read
3 your initial e-mail here to us.

4 A. "(EMPLOYEE #16), I'm sure you are familiar with
5 the section of towers that (EMPLOYEE #3) wanted to
6 relocate onto this side of the Feather River at Beldon
7 Town area and Caribou Road. In order to try to capture
8 the \$900K that was spent for nothing, Asset Management
9 decided that we would just replace the insulators and
10 hardware on the section of towers that were initially
11 going to be relocated.

12 I know most of these are helicopter access.
13 What I need is your best guess for replacing out all of
14 the existing insulators and hardware from 7/55 and 8/64.
15 When you can find the time, I need total man-hours and
16 the number of days you would need to utilize the
17 helicopter. This is so I can put a cost estimate
18 together for next year's plan."

19 Q. All right. So there's one I want to concentrate
20 on.

21 "In order to try and capture the 900,000 that
22 was spent for nothing, Asset Management decided that we
23 would just replace the insulators and hardware on that
24 section of towers."

25 Did I read that correctly?

26 A. That's what it says, yes.

1 Q. I thought you said that engineering determined
2 that you needed to replace those insulators?

3 A. Engineering is who came up with the punch list
4 of what needed to be done out there, yeah.

5 Q. Okay. But you specifically say right here "In
6 order to try and capture the 900,000 that was spent for
7 nothing, Asset Management decided we would just replace
8 the insulators."

9 That's your own words; correct?

10 A. Yes.

11 Q. In 2014?

12 A. Yes.

13 Q. And that's what you're telling the team or
14 the -- the people who are going to be doing the work is
15 that you need the estimate of the work; correct?

16 A. That's what I stated in here, yes.

17 Q. All right. So that makes it sound like the only
18 reason that you're doing this work is because you need
19 something tangible to show for the 900,000 that was spent
20 on this project.

21 A. I can see where you'd interpret it that way.
22 But one, we weren't trying to capture the whole \$900K.

23 Q. Right.

24 A. We're trying to capture work that could be
25 performed through capital asset, and that was required.
26 And I threw out management's name in there because if I

1 said engineering, (EMPLOYEE #16) wouldn't listen to it as
2 much if I said asset management.

3 Q. Why would (EMPLOYEE #16) not listen to
4 engineering?

5 A. It's just Asset Management made it sound like
6 more of a priority. "Let's get this scheduled and get it
7 done."

8 Q. Asset Management is the money people; right?

9 A. I'm not sure if they are or Business Finance is.

10 Q. Well, Business Finance is part of Asset
11 Management, isn't it?

12 A. I don't know.

13 Q. Well, Asset Management is the people who control
14 the money and engineering are the experts like Henry Ho
15 and the actual engineers who evaluate; correct?

16 A. Okay.

17 Q. So are you telling me that they're going to
18 listen to the money people before they listen to the
19 actual engineers?

20 A. Well, (EMPLOYEE #16) wasn't a normal supervisor.
21 So you're just trying to throw authority out there to
22 know that we need to get some of this work done.

23 Q. Okay. And nowhere in here do you say that it's
24 necessary to replace these insulators?

25 A. No, I don't say that.

26 Q. Okay. Now, apparently you sent some pictures of

1 each structure as part of this e-mail chain. Do you
2 remember what those pictures are?

3 A. The pictures, I believe, were of the insulator
4 strings on the towers.

5 Q. Do you know where those pictures are?

6 A. I do not.

7 Q. Where would we find those pictures?

8 A. I have no idea.

9 Q. Would those pictures include the cold-end
10 attachment points of those insulator strings?

11 A. Probably. If you zoomed way in, you might be
12 able to see some of that.

13 Q. Okay. So at some point in 2014 you realized
14 that there existed these pictures with cold-end
15 attachment points of these towers and they are somewhere?

16 A. Yeah. I think it was a bunch of scanned
17 pictures of a helicopter patrol showing what was there
18 existing. So engineering utilized those to review to
19 determine what their punch list would look like to bring
20 it up to today's standards.

21 Q. Okay. So the insulators on these -- on this
22 line weren't up to today's standards?

23 A. They don't have to be up to today's standards
24 until you touch them.

25 Q. Okay. So it's okay for them to be 100 years
26 old?

1 A. I'm not saying that they were 100 years old.

2 [Exhibit 1304 introduced
3 as evidence.]

4 BY MR. NOEL:

5 Q. All right. Let's move on to 1304. Do you
6 recognize 1304?

7 A. It looks like a continuation.

8 Q. It's a little bit different wording in the
9 subject. But again, you, (WITNESS #14), (EMPLOYEE #16).
10 Or actually, a little bit different compared to the BATE
11 stamp I guess is what it is.

12 A. Okay.

13 Q. And it looks to me -- am I reading this
14 right? -- that (WITNESS #14) is estimating that this job
15 is going to take 500 hours and four days of helicopter?

16 A. Yes.

17 Q. So 500 hours and four days would be 125 hours a
18 day. So how many people is that?

19 A. I don't know.

20 Q. Okay. And then you say "Thanks. I will work
21 with you with what you have and actually add a
22 contingency to that so we have enough funding for 2015.
23 We can always give monies back if we don't use it."

24 A. Right.

25 Q. So can you explain that to us.

26 A. Well, the contingency is the wind comes up

1 through the canyon or whatever and you need an extra day,
2 that's money to pay for the helicopter longer and more
3 hours if needed because the weather is so unpredictable
4 in that area.

5 Q. Okay. So we're going to ask for this much; and
6 if we don't spend it, we give it back?

7 A. Yeah. It's not real money anyhow. It's just
8 allocated in a plan. What they go by is what your
9 actuals are and then they readjust the targets in those
10 planning order buckets.

11 Q. Okay.

12 A. So it's not like they set aside all that money
13 for that job and then it just goes off into thin space.

14 [Exhibit 1305 introduced
15 as evidence.]

16 BY MR. NOEL:

17 Q. All right. 1305. Do you recognize 1305?

18 A. Somewhat.

19 Q. Okay. What do you remember about 1305?

20 A. I don't remember who Vijay is, but she was
21 looking for some justification on stuff.

22 Q. Okay. All right. Let's kind of start in the
23 middle here with your e-mail of November 3rd, 2014, to
24 Bangalore, Vijayraghavan --

25 MR. NOEL: Common spelling, Madam Reporter.

26 BY MR. NOEL:

1 Q. -- and Evan Geisert cced to a bunch of people.
2 It says "MWC 70 Caribou-Palermo relocation job that
3 originally started back in 2007 will be cancelled and
4 written off. There will be two new jobs created;
5 installing access roads and re-insulating 7/55 to 8/64."

6 Correct?

7 A. Yes.

8 Q. "The actual costs that have been spent since
9 inception in the original 30606109 --"

10 And that's that same order number we talked
11 about that was created back in 2012, correct, that we
12 looked at earlier?

13 "-- will be split amongst a total of three
14 orders; the original order plus 31088923 (roads) and
15 31088819 (insulators MWC 93)."

16 A. Correct.

17 Q. Then you go on to say "Those values have not yet
18 been fully determined. The remaining amount in the
19 original order will be written off. 31088923 would only
20 see charges that have been moved from the original job.
21 3108819 will see a portion of the original charges and
22 future charges in 2015 for replacing insulators under
23 MWC 93."

24 Can you explain what you're talking about to us.

25 A. It's just the start of coming up with a
26 different capital asset plans to split the costs spent to

1 date or unsettled costs from the original order into work
2 that was performed and can be capitalized.

3 Q. Okay. So again, looking at capitalized money
4 that has already been spent plus any additional money
5 that is spent; correct?

6 A. Yes.

7 Q. Now, "The original job has now been cancelled
8 and written off." What does that mean?

9 A. It means whatever money -- however much money is
10 left in the order after everything has been transferred
11 will be written off or will be expensed.

12 Q. Okay. And then it says "re-insulating 7/55 to
13 8/64." Correct?

14 A. That's what it says.

15 Q. And that's what the original was moving? 7/55
16 to 8/64 across the river; correct?

17 A. Correct.

18 Q. And then later on all of a sudden it went up to
19 13 insulators. And you told us that's what engineering
20 said needed to be done; correct?

21 A. Correct, independent of the line relocation.

22 Q. And now we're back to re-insulating just 7/55 to
23 8/64.

24 A. Because we're talking about the original order.

25 Q. Okay. And that those are going to be now under
26 this 3108819 number; correct? Actually, it's 88819.

1 A. Yes.

2 Q. And under Major Work Category 93?

3 A. Yes.

4 Q. And what was 93?

5 A. It's like -- it's like "other." It's
6 insulators, hardware, certain components of the tower
7 where as 70 is a complete tower.

8 Q. Okay. And then up above here there's an e-mail
9 from you to somebody named Clint Holsey, H-o-l-s-e-y.
10 Who is Clint Holsey?

11 A. He would have been the supervisor of Rich
12 Pettingill at the time.

13 Q. Okay. All right. It says -- the title is
14 "Caribou-Palermo \$750K." Correct?

15 A. That's what that title says, yeah.

16 Q. And you write "Clint, this is what I sent to
17 Vijay. I will eventually want to transfer this MWC 70 PO
18 5725534 to my 93-5510406 so that I can replace all of the
19 insulators in this line section like Asset Management
20 wants me to."

21 A. Okay.

22 Q. Did I read that correctly?

23 A. That's what I wrote, yes.

24 Q. Okay. So what is PO 5725534?

25 A. That's the -- it could be the pyramid that
26 resides above the order levels. And that's it down there

1 at the bottom.

2 Q. Okay. So down here on the very bottom line of
3 this --

4 A. It's a description of what planning order stands
5 for.

6 Q. Okay. All right. So and the Major Work
7 Category 70 you say is replacing steel structures?

8 A. Yes.

9 Q. So this has now been cancelled; right? This is
10 gone? It's disappeared; correct?

11 A. I don't know what you mean by "disappeared."

12 Q. There is no more project 5725543 relocate tower
13 7/55 to 8/64 in the Major Work Category 70?

14 A. Well, it's still there. They're just not moving
15 forward with the tower replacement.

16 Q. You say right here in your November 30th "It
17 will be cancelled and written off."

18 A. Yes.

19 Q. So it's not going forward?

20 A. Right.

21 Q. Okay. Now, again up here you say "So I can
22 replace all of the insulators in this line section like
23 Asset Management wants me to." Correct?

24 A. Okay.

25 Q. Why not engineering? That's what engineering
26 wants to do.

1 A. Because I'm dealing with Asset Management's side
2 of the house.

3 Q. Okay. So you're lying to the transmission line
4 people and telling them "Asset Management wants me to do
5 this instead of engineering because they don't understand
6 it." So you're lying to the asset management people?

7 A. No. It's asset management saying "Can we
8 replace insulators to capitalize this work? Any portions
9 of it?"

10 Engineering reviews it, looks at the pictures
11 and all that stuff, and says "Yeah. What is currently
12 there is not per today's standard. And since we have
13 touched those towers, we now have to bring them up to
14 today's standards. And here is the punch list of what
15 it's going to take to bring it up to today's standards."

16 Q. Okay. So let's back up and break that down.
17 Asset Management says "We want to replace these
18 insulators so that we can capitalize the money that's
19 already been spent"?

20 A. A portion of it, yes.

21 Q. And then engineering comes in and says "We've
22 touched these towers so we have to change the
23 insulators"?

24 A. Yes.

25 Q. So any time you touch one of these old towers,
26 you should have to change the insulators out?

1 A. I don't know the logistics of that.

2 Q. Well, you're telling us that's what you were
3 told.

4 A. Yes.

5 Q. If you touch these towers --

6 A. You said "every time." I can't answer that.

7 Q. Well, for instance, are you familiar with the
8 replace connectors project on the Caribou-Palermo?

9 A. No. I wasn't involved with that.

10 Q. But you're familiar with it though; right?

11 A. No, I'm not.

12 Q. Okay. And by the way, how at this point did
13 anybody even touch these towers? They didn't get
14 relocated; right?

15 A. Well, I know they were inspected. They were
16 climbed on. They took some samples out of the conductor
17 to have that tested for being annealed. I know that
18 there was -- I didn't follow that 100 percent all the way
19 through because it wasn't my job. I just know some
20 certain things that were done because people would cc me
21 on e-mails.

22 Q. Okay. But they have done no work in these
23 towers yet?

24 A. I just said what they did.

25 Q. Okay. But towers get inspected all the time,
26 towers get worked on all the time; correct?

1 A. You're asking me about an area that I'm not
2 familiar with on what the standards are.

3 Q. Okay. But you're telling us that engineering is
4 saying "We touched these towers so now we have to change
5 out these insulators"?

6 A. That is how it was presented, yes.

7 Q. Okay. So who presented that to you?

8 A. I don't recall.

9 [Exhibit 1306 introduced
10 as evidence.]

11 BY MR. NOEL:

12 Q. Okay. Let's move on to 1306. Do you recognize
13 this e-mail?

14 A. Yes.

15 Q. All right. Basically you're still working on
16 getting those insulators replaced in March of '15;
17 correct?

18 A. Yes.

19 Q. So now we're eight years into this project and
20 you haven't even changed the insulators; correct?

21 A. Well, they weren't deemed to be replaced for
22 eight years into the project.

23 [Exhibit 1307 introduced
24 as evidence.]

25 BY MR. NOEL:

26 Q. Okay. Now 1307. Can you tell us what 1307 is.

1 A. It looks like a list of line names that Table
2 Mountain T-line either would have been responsible for or
3 was just in their area of work being performed.

4 Q. Okay.

5 A. And they --

6 Q. And is it a schedule of work or --

7 A. It's a work forecast plan.

8 Q. Okay. Explain to us how to read it.

9 A. The top line got the order number that they'll
10 be charging the work to. They got the tag number from
11 when it was inspected in the field and they found
12 something wrong that needed attention. You got the tower
13 number and line name with the tag and numbers associated
14 with it and you have the month that the work is currently
15 forecasted and planned for in the work management flow
16 system.

17 Q. Okay. All right. So 3108819 -- that's to
18 replace insulators; correct? That's their project?
19 Caribou-Palermo replaced insulators?

20 A. Yes.

21 Q. It doesn't have a notification number. Does
22 that mean that nobody has issued a tag saying that they
23 found the insulators need to be replaced?

24 A. It means that since it's come from project
25 management, project management jobs do not have
26 notification numbers.

1 Q. Okay. And then there's no check. So this isn't
2 scheduled; correct?

3 A. It's currently not scheduled by T-line
4 maintenance, yes.

5 Q. And then up here in the body of the e-mail you
6 say "They are asking us to return dollars already for
7 jobs that are unplanned." Do you know who "they" is?

8 A. Would have been Asset Management.

9 Q. Okay. So does this mean that they're looking at
10 taking back the money for this project?

11 A. For just the current year.

12 Q. Okay. So the fact that there's no notification
13 number means that there is no tag number; correct?

14 A. Which again there was no tags generally for
15 project management work.

16 [Exhibit 1308 introduced
17 as evidence.]

18 BY MR. NOEL:

19 Q. Okay. All right. Now moving on to 1308. Do
20 you recognize 1308?

21 A. Yeah.

22 Q. This is an e-mail from May 20th of 2016 between
23 you and somebody named (EMPLOYEE #17).

24 A. She's the clerk for Table Mountain.

25 Q. Okay. All right. So on May 20, 2016, you wrote
26 "40691004 - 6/53 - install inverted." And then there's a

1 list of all of these with a number. Can you explain what
2 we're looking at.

3 A. That number is referred to as an equipment
4 number that identifies that particular structure within
5 the SAP Program.

6 Q. Okay. And then it starts off with an e-mail
7 from (EMPLOYEE #17) that says "(WITNESS #5), could you
8 please let me know how many notifications do I need to
9 create on this job." Correct?

10 A. Yeah. That's what she's asking.

11 Q. And that is job 31088819; correct?

12 A. Correct.

13 Q. All right. So are these -- these are structure
14 numbers or these are notification numbers?

15 A. Neither. It's called equipment numbers.

16 Q. Okay. All right.

17 A. Each tower has a unique equipment number as well
18 as the structure number.

19 Q. All right. So let's go back up to your final
20 e-mail in this chain May 20th, 2016 to (EMPLOYEE #17).
21 You say "I do not know. I have e-mails from and to
22 (EMPLOYEE #16), (WITNESS #14), and (WITNESS #19) asking
23 what was completed so far but never could get any
24 answers. As for (WITNESS #12), no e-mails, just phone
25 conversations. This started when (EMPLOYEE #16) was
26 running the area. So unfortunately I have no supporting

1 documents from (WITNESS #12).

2 This work was deemed by Manho in order not to
3 end up expensing \$800,000 that was spent by (WITNESS #15)
4 on an original job started by (EMPLOYEE #3)."

5 Did I read that correctly?

6 A. Yes.

7 Q. Who is Manho?

8 A. He's at the time pretty much the top of Asset
9 Management.

10 Q. That would be Manho Yeung?

11 A. Yes.

12 MR. NOEL: That is -- Yeung is Y-e-u-n-g.

13 BY MR. NOEL:

14 Q. So this is what you're telling (EMPLOYEE #17)
15 that Manho Yeung has deemed this work simply to avoid
16 expensing that \$800,000; correct?

17 A. Yeah. If you don't do any capital work, you
18 have to expense it.

19 Q. So the only reason you're doing this work is so
20 that you can capitalize it and you don't have to expense
21 that \$800,000?

22 A. That's not correct.

23 Q. Okay. So there's other reasons that you didn't
24 state in the e-mail?

25 A. I don't need to go into detail to (EMPLOYEE
26 #17).

1 Q. Well, why are you telling (EMPLOYEE #17) that
2 Manho deemed this work?

3 A. Because it's common for everybody to throw names
4 around to get -- to get stuff going.

5 Q. Right. But wouldn't it have been -- I mean, the
6 answer to her question -- her question is "Do you know
7 when this job was completed? Also, if you can forward
8 the e-mails that you send to (WITNESS #12) regarding
9 this."

10 And your response says "This work was deemed by
11 Manho in order to not end up expensing it."

12 If you were just throwing his name out, wouldn't
13 it be just to say "Manho says do it"?

14 A. No.

15 Q. Why are you going into detail to a clerk as to
16 why Manho wants you to do this work?

17 A. Because there was other conversations between
18 her and I besides an e-mail.

19 Q. Okay.

20 A. And she's pretty much the one that ran Table
21 Mountain even though she was a clerk.

22 [Exhibit 1309 introduced
23 as evidence.]

24 BY MR. NOEL:

25 Q. All right. Let's move on to 1309. And this is
26 a very brief one. Do you recognize it?

1 A. Yeah. It's my comments based on reviewing a
2 post estimate replacing the insulators on that tower
3 section.

4 Q. Okay.

5 A. (EMPLOYEE #1) did.

6 Q. First of all, who is (EMPLOYEE #1)?

7 A. She's the one who replaced me. She's an M&C
8 engineer.

9 Q. All right. And the subject is "Sign request for
10 review of 2017-08347 (PE Caribou-Palermo replace
11 insulators on 11 towers." So what is 2017-08347?

12 A. It's the EDRS routing number. And that's a
13 self-generated subject matter by E-fluence.

14 Q. And what is "PE Caribou replacement --"

15 A. Post estimate.

16 Q. What is a post estimate?

17 A. It means you follow up with the paperwork after
18 a job is completed.

19 Q. So the job has already been completed at this
20 point?

21 A. I don't know that. That is her post estimate.

22 Q. Okay. Why -- are you retired by this point or
23 are you still working?

24 A. I'm still working, but I'm already -- I moved
25 down south and she took over the north.

26 Q. Okay. And then your comment back to her

1 "Jefferson - not Jake." Can you explain that.

2 A. Because what you don't see on the routing is who
3 she has it going to people next after me or several after
4 me and she has the wrong name.

5 Q. Okay. Do you know who Jefferson is?

6 A. Jefferson Heidleberg.

7 Q. And who is Jefferson Heidleberg?

8 A. I don't know who -- I don't know currently, but
9 back then he was another Asset Management-type person.

10 Q. Okay. Was there somebody named Jake or did she
11 just have the wrong name?

12 A. No. Jake was our supervisor of the M&Cs at one
13 time.

14 [Exhibit 1310 introduced
15 as evidence.]

16 BY MR. NOEL:

17 Q. Okay. All right. 1310. Can you tell us what
18 1310 is.

19 A. It means I checked her document for any obvious
20 errors and said it's okay to route to the next person.

21 [Exhibit 1311 introduced
22 as evidence.]

23 BY MR. NOEL:

24 Q. All right. Now, moving on to 1311. This sets
25 the table for this. The relocate -- the Caribou-Palermo
26 relocate towers project that you nominated in 2007 had

1 trouble dying; is that correct?

2 A. Had what?

3 Q. Had trouble dying. It continued to haunt you
4 for many years. Is that true?

5 A. Just -- it's just how things happen sometimes
6 when a project managed job gets handed back down to an
7 M&C engineer.

8 Q. Okay. And at some point did (EMPLOYEE #1)
9 approach you and ask you about the history of the
10 project?

11 A. Yeah. She asked me to write what I know -- knew
12 about it, remembered about it.

13 Q. Okay. And we have here October 4th, 2017, an
14 e-mail from you to (EMPLOYEE #1). It says "(EMPLOYEE
15 #1), please forward to the appropriate parties that you
16 had the call with. Caribou-Palermo history for job
17 splitting justifications and write-off." Correct?

18 A. Yeah.

19 Q. All right. So it starts off "Is this your
20 written statement about the history of this project?"

21 A. Yeah. It was -- yeah. It was a quick thrown
22 together.

23 Q. All right. So it starts off with "Created
24 4/25/07 per request from project management (WITNESS #15)
25 for a study to replace."

26 That's what you wrote?

1 A. What's the last four digits of that order number
2 next to (WITNESS #15)?

3 Q. 30573184.

4 A. Yeah, I wrote that.

5 Q. Well, I thought you told us that this was a
6 project that was requested by (EMPLOYEE #3)?

7 A. Okay.

8 Q. And (WITNESS #15) didn't get involved in it
9 until after the AA had been approved?

10 A. That's correct.

11 Q. So was (WITNESS #15) -- is (WITNESS #15) the one
12 who requested this project?

13 A. No, but he's the project manager.

14 Q. Okay. But you say "4/25/07 per request from
15 Project Manager (WITNESS #15)." That would infer, based
16 upon your writing, that (WITNESS #15) actually requested
17 that this project happen.

18 A. I can see how this could be interpreted that
19 way.

20 Q. Now, in reality you said this was something that
21 was suggested by Keith Williams and nominated by
22 (EMPLOYEE #3); correct?

23 A. Correct.

24 Q. And (WITNESS #15) didn't get involved until
25 after the AA had been approved and it was shipped off to
26 project management?

1 A. Correct.

2 Q. And 4/25/07 that actually predates the day of
3 your Advance Authorization; correct? You're looking at
4 the authorization Exhibit 838?

5 A. 1298.

6 Q. 1298. Okay. 1298 is your original
7 authorization that you --

8 A. Yeah.

9 Q. That was changed. And that date is 5/7/07.

10 A. Okay.

11 Q. So this date predates even that date.

12 A. Okay.

13 Q. So somewhere is there a request from (WITNESS
14 #15) to do this project?

15 A. No.

16 Q. Okay. Let's see. It goes on "Replace ten
17 towers that are inaccessible and built in the early
18 1900s, MWC 70S. This was approved by AJE via EDRS with
19 numbers by Luther Dow for \$200,000." Correct?

20 A. Yeah.

21 Q. What is AJE?

22 A. Advance job estimate.

23 Q. Okay. Then it goes down something "created
24 11/7ish/07 by SAP-FR conversion and then 11/7/07 30606109
25 to replace the order number to coincide with the SAP
26 upgrade. Dollars from 30573184 and 30604541 were moved

1 to this new order."

2 So that's what you're talking about when the SAP
3 upgrade changed all the order numbers; correct?

4 A. Yes.

5 Q. All right. And then it says something "Created
6 7/15/14 - 31088819 to capture costs for replacing
7 insulators on the 10 towers that were originally studied
8 for fracture replacement. A portion of the costs from
9 order 30606109 would be transferred to this order for the
10 labor hours of field inspection on these 10 towers."

11 Reading that correctly?

12 A. Yes.

13 Q. And then "Created 7/15/14 31088923 to capture
14 the costs for the dollar amount to be wrote off for the
15 original 10 tower replacement project that ended up not
16 being approved by senior management. Only the dollars
17 that could not be justified by 30606109 and 31088819
18 would be transferred to this order and marked for write
19 off."

20 So what does that mean?

21 A. As I explained earlier, after coming up with the
22 capital improvement assets, the road and insulators,
23 whatever was left over, which the bulk of was engineering
24 costs, would be transferred to that other order number so
25 it could be wrote off, expensed.

26 MR. NOEL: Okay. All right. I think we've got

1 one more exhibit.

2 MS. DUPRE-TOKOS: Yes.

3 [Exhibit 1312 introduced
4 as evidence.]

5 BY MR. NOEL:

6 Q. All right. Exhibit 1312. And this is some
7 e-mails between you and Douglas Cannel again. This is in
8 2016. And it looks like on June 13, 2016, Doug Cannel
9 had sent you an e-mail or sent an e-mail and part of it
10 said "(WITNESS #5), you are one of the most knowledgeable
11 individuals on PG&E tower design and construction. Do
12 you have any additional concerns or thoughts?"

13 And the subject of this is "Comprehensive Plan
14 for Towers."

15 And so your response. You see that?

16 A. Yeah.

17 Q. It says "The only thing that --" oh. "The only
18 thing after reading the below that came to my mind would
19 be to also something life cycle expectancies on some of
20 the older lines that we purchased from other utilities.
21 Caribou-Palermo (old Caribou-Golden Gate) for example
22 built roughly in 1907. This line is in a very remote
23 area. Access is extremely limited. Conductor was deemed
24 annealed several years back. Line has tons of splices in
25 it. Some spans have five splices within said span. Most
26 of the upper line section is subject to rock slides that

1 have taken this line out in the past. Restoration time
2 is lengthy."

3 Did I read that correctly?

4 A. Yes.

5 Q. So what does it mean that the conductor is
6 annealed?

7 A. It's -- annealed usually means a little more
8 brittle. It's a copper conductor.

9 Q. What makes you think it's a copper conductor?

10 A. Because I know it's a copper conductor, the
11 majority of the upper section.

12 Q. Okay. Do you have any records to show that?

13 A. Do I?

14 Q. Yeah.

15 A. No.

16 Q. Okay. I'm just wondering because PG&E says it's
17 aluminum.

18 A. No, because we wouldn't put shunts on aluminum.

19 Q. Okay. And again, what are shunts?

20 A. Where I said there was bad splices -- well, not
21 bad but where infrared showed a possible leakage and they
22 wrapped the wire from one side of the wire over to the
23 splice and onto the next to reduce heat buildup.

24 Q. And I'm guessing based upon your language that
25 having five splices within a span is not a good thing?

26 A. Well, each splice has a potential for failure.

1 Q. And splicing is what you do basically to fix the
2 line instead of to replace the line; correct?

3 A. It's -- there's several uses for splicing.
4 You're splicing -- if the wire broke and it has good
5 clean ends, you can splice it back together. You have
6 multiple splices when you have to start cutting bad
7 sections out. You have multiple splices where maybe a
8 substation -- in this case where the fire is there used
9 to be a substation drop below with five splices. It's no
10 longer there. So the splices are utilized for putting
11 wire back together or piecing in new sections of wire.

12 Q. So it sounds from your description that the
13 Caribou-Palermo is in pretty bad shape.

14 A. I'm just giving them an example of one line
15 because it was fresh in my head because of all the
16 involvement with trying to get the job set up.

17 Q. All right. Is this again verbiage with no real
18 basis and fact or are you expressing actual knowledge?

19 A. Well, it's roughly built in 1907. I mean,
20 that's roughly. I'm not saying for a fact it is. It's
21 in a remote area all the way in the upper section.

22 Q. Right.

23 A. It is subject to rock slides. We've had rocks
24 come down and damage structures before that we had to go
25 up and repair. There are several splices in the line.
26 That's all factual. The annealed part is subject to

1 question because it's been deemed both ways by different
2 people.

3 Q. And then you go on to say "Just one example but
4 I feel we should identify lines or line sections that
5 meet this type of criteria and add them to our mitigation
6 plan or part of future complete structure replacements
7 while working with Transmission Planning and Operations
8 for future growth and conductor size needs?

9 A. Correct.

10 Q. Correct?

11 So am I reading that right or understanding that
12 right? It sounds like you're saying we need to look at
13 replacing these lines.

14 A. We need to look at the integrity of these older
15 lines that, one, aren't lines that PG&E built from
16 scratch. They're ones we picked up from other people,
17 and there are several other agencies that we bought
18 structures from.

19 Q. And so what is this group here, this
20 comprehensive plan for towers?

21 A. I don't recognize all the names, but I'm seeing
22 specialists, asset management, transmission planning,
23 project management, specialists, business finance. And
24 the ccs to me all look like they were going to directors
25 at the time.

26 Q. Manho Yeung, Jon Eric Thalman, John Parks, Jeff

1 Borders.

2 A. I think about that time they were all directors
3 of different groups.

4 Q. And down at the bottom it says "Goal: Develop a
5 comprehensive plan for tower risk without emphasis on
6 steel corrosion risks. Plans should include maintenance
7 plans, detail inspection specifications, repair versus
8 replace criteria, capital and expense cost estimates,
9 risk database, and update standards."

10 Did I read that correctly?

11 A. That's what I'm reading.

12 Q. So is this group doing comprehensive plans for
13 towers? Is that actually a group that's trying to put
14 together a comprehensive plan for replacing towers, older
15 towers? Or like the Deteriorating Transmission Asset
16 Replacement Fund is that just a name that has nothing to
17 do with what the work is doing?

18 A. I have no idea.

19 Q. Other than this e-mail, did you know you were
20 involved in that group at all?

21 A. On an individual basis but not related to the
22 e-mail.

23 Q. Okay. All right. So one last thing I wanted to
24 ask you about. Give me a second to switch up here.

25 All right. I've put up 678. And we didn't
26 really talk about this before.

1 Are you familiar with the RIBA process?

2 A. The what?

3 Q. RIBA process.

4 A. I'm not familiar with that acronym.

5 Q. Okay. Risk Informed Budget Analysis.

6 A. Okay.

7 Q. Do you know anything about this? This is a 2014
8 RIBA scoring sheet, your project number Caribou-Palermo
9 115 kV T-line relocate. That project number is 5725543.

10 This project had been cancelled by this time;
11 correct?

12 A. What's the date on that?

13 Q. That's in 2014. And I don't have a specific
14 date on this document.

15 A. So, yes, it had. But it was still falling under
16 Rich Pettingill's name because of the insulator work that
17 had yet to be done. And I don't think Rich updated his
18 pining order number. That's why it kept defaulting to
19 that.

20 Q. Okay. But what was Rich still working on? Was
21 that the insulator project?

22 A. Well, as far as project management saw, it was
23 still in his cue.

24 Q. Okay.

25 A. Because it wasn't a closed order. It wasn't a
26 closed job. It was a whole -- it hadn't settled out yet.

1 Q. But the only thing left to do on this
2 Caribou-Palermo 115 kV transmission line relocate project
3 was the insulators; correct?

4 A. The insulators and settling the cost.

5 Q. And settling the cost. Everything had already
6 been spent before. The cost -- you're talking about
7 settling the cost for installing the road to the Table
8 Mountain -- Caribou-Table Mountain line; correct?

9 A. Yeah, but I don't--

10 What did you say just before that? You said
11 everything had been and I missed the word.

12 Q. Basically, the only things left to do were
13 replace the insulators and settle the costs?

14 A. Settle the costs, yes.

15 Q. And to replace the insulators was not a hot
16 project that needed to be done immediately; correct?

17 A. No.

18 Q. Would it surprise you if that -- to hear that
19 project didn't get done until September of 2017?

20 A. No, that wouldn't surprise me.

21 Q. Okay. Basically, ten years after -- more than
22 ten years after this whole project started they finally
23 replaced the insulators apparently.

24 A. Okay.

25 Q. Okay. So can you explain on a RIBA score how
26 that project, the Caribou-Palermo 115 kV transmission

1 line relocate project on a risk or scored 400 points
2 higher than to the replace the towers that fell down in
3 2012? Can you think of any valid reason why that would
4 be so?

5 A. Nope, other than project management not having
6 the records updated.

7 MR. NOEL: Okay. I think that that's all I
8 have. I'm going to see if the jurors have some questions
9 for you, too.

10 So the jurors are allowed to ask questions.
11 They write them down, and we review them beforehand. And
12 once they are approved or if they're approved, then I
13 would read you the questions of the jurors.

14 THE WITNESS: So while you're reviewing that,
15 can I use the restroom?

16 MR. NOEL: It's just going to be real quick here
17 and then we'll be done for the day.

18 THE WITNESS: All right.

19 MR. NOEL: We'll be completely done with you.

20 BY MR. NOEL:

21 Q. All right. "If you're being told what to write
22 by Keith Williams and you have no experience writing an
23 AA, why would you attach your name to it?"

24 A. Because I'm the one that's writing it. It
25 starts off with -- the project manager field is not
26 really saying you're the project manager. When you're

1 first starting these, it's got to be a name and it's got
2 to be a lower level name like engineer or project
3 manager. It can't be a higher-up name.

4 Q. So why wouldn't Keith Williams just take
5 complete ownership of the AA?

6 A. I mean, I have not experienced that in my time
7 where a manager initiates an AA. It's always done at the
8 lower levels.

9 Q. Why wouldn't, say, (EMPLOYEE #3) write the AA?

10 A. Because it's not -- it's not in his -- it's not
11 typical. It's generally a project manager. And since
12 we're -- since M&C engineers are considered pseudo quasi
13 mini project managers, we're the next in line.

14 Q. But you said that you didn't generally write --

15 A. We don't generally write because --

16 Q. -- because you have no experience.

17 A. -- because everything is generally written by
18 the project managers or by the John Culbertsons
19 sometimes.

20 Q. What was your relationship with (EMPLOYEE #3)?

21 A. He was -- can you re-ask that.

22 Q. Are the two of you friends?

23 A. We're work-related friends. We don't associate
24 outside of work. It's just a normal work environment.

25 Q. And you said he's now retired?

26 A. When I -- when I left the company, that's how I

1 knew it is he was retired from PG&E.

2 Q. All right. Prior to retirement what was his
3 position with PG&E?

4 A. I don't know exactly prior to that.

5 Q. Well, at some point did he promote to
6 superintendent?

7 A. Now that you say that, yes, he did.

8 Q. So he promoted from T-line supervisor in Table
9 Mountain to superintendent for the north; correct?

10 A. Yes.

11 Q. Basically superintendent for the same area that
12 was your geographic area as the M&C engineer?

13 A. Yes, other than I don't know if that time was
14 the same or if I had already transitioned down south.

15 Q. How would an access road benefit deteriorating
16 assets? Wouldn't replacing deteriorating components in
17 towers themselves benefit the actual asset?

18 A. Well, the components were the insulator
19 replacement. So that was one of the alternative fixes
20 was to replace the insulators on the original section of
21 line that (EMPLOYEE #3) had concerns about to begin with.
22 The road was a requirement for the installation of the
23 new towers if they would have gone forward. But that
24 same corridor holds two other existing lines that had no
25 access to them at all. So that's how we were able to
26 transfer the money under those assets and capture that

1 road as a capital asset.

2 Q. So if that money -- if the money that was used
3 to complete the access road was later replenished from
4 another bucket, why not just complete the relocation
5 project?

6 A. Can't answer that. That's not -- it was cut.

7 Q. "What is the purpose of moving money from bucket
8 to bucket to bucket if it would just be replenished?"

9 A. I think the replenishment part is misleading a
10 little bit. It's more of -- it's not replenished.
11 You're taking it out of this bucket which is going to
12 allow you to do less work under that type of category
13 and -- because you did that type of work. And then you
14 put the money back in the bucket from that one to show
15 that no work was done under that replacement category.

16 Q. "In retrospect do you believe your description
17 of the Caribou-Palermo line as deteriorated and in danger
18 of imminent failure was in fact correct?"

19 A. Not after reading the inspection reports. I had
20 no -- nothing to base what the actual conditions of the
21 structures themselves were. And after the inspection
22 reports went through engineering for review, they came
23 back saying that the structures themselves are sound. So
24 that's what I've got to go by. I had no personal
25 knowledge or visuals of the structures themselves being
26 deteriorated or dilapidated.

1 Q. "Did the inspection reports say that the
2 components were sound?"

3 A. I did not see the inspection reports.

4 Q. So how do you know what they said?

5 A. I personally don't other than engineering came
6 back and Doug Cannel came back saying there wasn't
7 supporting evidence. It was not my job while it was
8 being inspected.

9 Q. So Doug Cannel or Cannel told you that there was
10 no supporting evidence for the fact that the towers were
11 deteriorating?

12 A. I said it had to have come from Doug or
13 engineering.

14 Q. Okay. But you can't tell us where you got that
15 information?

16 A. No.

17 Q. "Do you believe that should the project be
18 recommended had been authorized and conducted the events
19 of 11/8/18 might not have happened?"

20 A. No, I do not believe that.

21 Q. Do you know the meaning of the word
22 "deteriorated"?

23 A. Well, deteriorated for steel would be signs of
24 rust, fatigue from vibration, anything that degrades the
25 original intent when that structure was built new.

26 Q. Are you familiar with the term body-on-body

1 wear?

2 A. Not exactly as you just said that, no.

3 Q. Okay. Do you know what happens when two metal
4 items rub up against each other repeatedly?

5 A. Yes.

6 Q. Would that be something you would consider
7 deterioration?

8 A. Not in the PG&E world of deterioration, no.
9 It's more centered around the main structure, fatigue,
10 rust, bends.

11 So what you're referring to is insulator and
12 hardware issues that's a separate component from the
13 tower even though that tower suspension work and eye,
14 from what I've seen, had excessive wear on it.

15 Q. You're saying that based upon your 34-year
16 career with PG&E, that PG&E would not consider that type
17 of wear deterioration?

18 A. I don't know if that's the word they would use.

19 Q. Okay. You've obviously seen pictures of the
20 wear on Caribou-Palermo.

21 A. I've seen what I believe you or my lawyer showed
22 me.

23 Q. Seen pictures of worn C-hooks and worn hanger
24 holes?

25 A. I've seen the tower, yeah.

26 Q. Okay. Would you consider that deteriorated?

1 A. I would just consider it excessive wear to a
2 point that it probably should have been replaced.

3 Q. All right. "Do you know the meaning of the word
4 dilapidated"?

5 A. No.

6 Q. "Do you know the meaning of the word imminent"?

7 A. Usually means it's going to happen. That's how
8 I would interpret it.

9 Q. "At the time you put in the Advance
10 Authorization request were you personally actually
11 concerned about the condition of the Caribou-Palermo
12 line"?

13 A. I was not.

14 Q. When exactly did you retire from PG&E?

15 A. April 1st, 2017.

16 Q. When you retired, did you have to sign any
17 nondisclosure agreements or anything like that?

18 A. Not that I recall.

19 Q. Since you retired, have you been asked to sign
20 any nondisclosure agreements by PG&E?

21 A. Not by -- well, I know that my -- I don't want
22 to say current employer. The person I contacted back at
23 the time had me sign one, but I don't know.

24 Q. Who do you work for now?

25 A. N Consulting Engineers, I think.

26 Q. And what is that?

1 A. They're doing some sort of contract work for
2 PG&E. I don't know what aspect of that they encompass.

3 Q. Could you -- what's the name of the company?

4 A. I believe it's N Consulting. Just the letter
5 "N" Consulting Engineering or Inc. One of the two.

6 Q. And where is this company out of?

7 A. L.A., I believe.

8 Q. And do you have a boss with this company?

9 A. All I can recall is Andrew.

10 Q. What kind of work do you do for this company for
11 PG&E?

12 A. I review patrol -- not patrol, inspection tags
13 initiated by an outside party that's doing inspections of
14 all the lines for the steel side.

15 Q. So like PAR Engineering?

16 A. Not -- I don't know what PAR is doing. I'm not
17 affiliated with PAR.

18 Q. Okay. But you said you're reviewing
19 notification tags generated by somebody who is being --
20 another company being contracted to inspect the PG&E
21 lines?

22 A. Like the drawing inspection program.

23 Q. So you're talking about the WSIP?

24 A. One of those and there's one other acronym.

25 Q. So did this job start after the Camp Fire?

26 A. Yes. It started about somewhere in April I

1 think is when they approached me.

2 Q. Who approached you?

3 A. N Consulting.

4 Q. Who from N Consulting?

5 A. Well, Andrew is the only name that sticks with
6 me. That's my immediate contact.

7 Q. They approached you to come in and do what?

8 A. Review patrol tags.

9 Q. Okay. So you have reviewed patrol tags
10 generated during the WSIP; Wildfire Safety Inspection
11 Program?

12 A. After the fire, yes, I guess. I don't know when
13 that program started so . . .

14 Q. Okay. And you said they had you sign a
15 nondisclosure agreement?

16 A. Yes.

17 Q. All right. I'll try again. Do you know what
18 Andrew's last name is?

19 A. It's not coming to me. I just called him
20 "Boss."

21 Q. Well, how do you get in touch with him?

22 A. I e-mail him or call him.

23 MR. NOEL: All right. I think that's it. It's
24 almost -- it's after 1 o'clock. So if you wait, she's
25 going to have an admonishment for you and then you're
26 free to leave.

1 GRAND JURY FOREPERSON: (WITNESS #5), you are
2 admonished not to discuss or disclose at any time outside
3 of this jury room the questions that have been asked of
4 you or your answers until authorized by this grand jury
5 or the Court. A violation of these instructions on your
6 part may be the basis for a charge against you of
7 contempt of court. This does not preclude you from
8 discussing your legal rights with your own attorney.

9 (WITNESS #5), what I have just said is a warning
10 not to discuss this case with anyone except the Court,
11 your lawyer, or the district attorney.

12 Do you have any questions?

13 THE WITNESS: I do have one just for
14 clarification. How would I end up being notified by the
15 Court that I can start openly discussing this?

16 GRAND JURY FOREPERSON: I don't know.

17 [Counsel conferring off the record.]

18 MR. NOEL: Probably in the media when it becomes
19 public.

20 THE WITNESS: Really?

21 MR. NOEL: Yep.

22 All right. So you're free to go.

23 THE WITNESS: Okay. Thank you.

24 GRAND JURY FOREPERSON: Thank you.

25 THE WITNESS: I think it's Andrew Davis.

26 MR. NOEL: All right. Thank you.

1 [Witness exits the courtroom.]

2 MR. NOEL: All right. Move all the exhibits
3 from today in. I think it starts at 1272 and goes to
4 1312 into evidence.

5 [Exhibits 1272 through 1312
6 admitted into evidence.]

7
8 [DISCUSSION OMITTED.]

9
10 [Matter adjourned at 1:22 p.m.]

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COURT REPORTER'S CERTIFICATE

This is to certify that I, Lisa McDermid Welch, a Certified Shorthand Reporter of the State of California was present at the time and place the foregoing grand jury proceedings were had and taken in the within matter; and that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings; and afterwards caused my said shorthand writing to be transcribed into typewriting; and the foregoing pages, beginning at the top of Page 1 to and including Page 130 hereof, constitute a full, true, accurate, and complete record of the proceedings.

DATED: This 6th day of June, 2022.

[Lisa McDermid Welch](#)

LISA MCDERMID WELCH, CSR, RPR
CSR LICENSE NO. 10928

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

REDACTED

BCSC-2019-GJ-01

CONFIDENTIAL GRAND JURY PROCEEDINGS

FRIDAY, FEBRUARY 11, 2020

VOLUME 37

OROVILLE, BUTTE COUNTY, CALIFORNIA

LISA MCDERMID WELCH, CSR 10928, OFFICIAL COURT REPORTER

SEALED PURSUANT TO PENAL CODE 938.1 (b)

1 APPEARANCES:

2 FOR THE BUTTE COUNTY DISTRICT ATTORNEY'S OFFICE:

3 Marc Noel, Deputy District Attorney
4 Jennifer Dupre-Tokos
5 25 County Center Drive
6 Oroville, California 95965

7 FOR THE STATE OF CALIFORNIA DEPARTMENT OF JUSTICE
8 OFFICE OF THE ATTORNEY GENERAL:

9 (No appearance)

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1 OROVILLE, BUTTE COUNTY, CALIFORNIA

2 FEBRUARY 11, 2020; 9:18 a.m.

3 (Confidential Special Grand Jury Hearing Proceedings)

4
5 (DISCUSSION OMITTED.)

6
7 [Matter adjourned at 9:40 a.m.]

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COURT REPORTER'S CERTIFICATE

This is to certify that I, Lisa McDermid Welch, a Certified Shorthand Reporter of the State of California was present at the time and place the foregoing grand jury proceedings were had and taken in the within matter; and that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings; and afterwards caused my said shorthand writing to be transcribed into typewriting; and the foregoing pages, beginning at the top of Page 1 to and including Page 4 hereof, constitute a full, true, accurate, and complete record of the proceedings.

DATED: This 6th day of June, 2022.

[Lisa McDermid Welch](#)

LISA MCDERMID WELCH, CSR, RPR
CSR LICENSE NO. 10928

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APPEARANCES:

FOR THE BUTTE COUNTY DISTRICT ATTORNEY'S OFFICE:

Marc Noel, Deputy District Attorney
Jennifer Dupre-Tokos, Deputy District Attorney
25 County Center Drive, Suite 245
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I N D E X

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INDEX OF GRAND JURY EXHIBITS

EXHIBIT	DESCRIPTION	IDENTIFIED	MARKED	ADMITTED
1331	Video of hover simulation @ Caribou-Palermo lines	37		--
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OROVILLE, BUTTE COUNTY, CALIFORNIA

FEBRUARY 14, 2020; 8:30 a.m.

(Confidential Special Grand Jury Hearing Proceedings)

[Confidential grand jury called into session at 8:42 a.m.
in Courtroom 9.]

[Grand jury role call omitted.]

GRAND JURY SECRETARY: Thank you. All members of the
jury are present.

[Discussions omitted.]

GRAND JURY FOREPERSON: Ready.

MS. DUPRE-TOKOS: Esther Carota.

[Witness enters the courtroom.]

GRAND JURY FOREPERSON: There's an extra one here.
Extra.

MR. NOEL: Thank you. I just needed the number off
of the exhibits.

GRAND JURY FOREPERSON: Ms. Carota, before you have a
seat, would you please raise your right hand to be sworn?

Ms. Carota, do you solemnly swear that the
evidence you shall give in this matter pending before the
grand jury shall be the truth, the whole truth and nothing

1 but the truth so help you God?

2 THE WITNESS: Yes, I do.

3 THE COURT: Thank you. Have a seat, please.

4

5

EXAMINATION

6 BY MS. DUPRE-TOKOS:

7 Q. And help yourself to water if you need it.

8 A. Thank you.

9 Q. So good morning.

10 A. Good morning.

11 Q. Could you please state your full name and spell
12 your last name for the record?

13 A. Esther Jean Carota, C-A-R-O-T-A.

14 Q. Do you know someone by the name of Vincent
15 Carota?

16 A. Yes.

17 Q. And did -- does he go by the name of Vinny?

18 A. Yes.

19 Q. When was the last time you spoke to him either
20 in-person or on the phone?

21 A. November 8, 2018.

22 Q. Was that in-person or on the phone?

23 A. On the phone.

24 Q. Was it a long phone call?

25 A. 13 minutes.

26 Q. And how do you know it was 13 minutes?

1 A. I checked my call log.

2 Q. And did you call him or did he call you?

3 A. I called him.

4 Q. Have you spoken to him on the phone in the past?

5 A. Oh, yes.

6 Q. Often?

7 A. 22 years, yes.

8 Q. Okay. Did you call him at the number that you

9 would normally call him to reach him?

10 A. Yes.

11 Q. And did you recognize the voice of the person

12 that you spoke to on the morning of November 8, 2018, as

13 that of Vinny?

14 A. Yes.

15 Q. Okay. Up on the board, we have got Exhibit 1275.

16 [Exhibit No. 1275 was identified.]

17 BY MS. DUPRE-TOKOS:

18 Q. Do you recognize the person in that photograph?

19 A. That's Vinny and Daphne.

20 Q. And Daphne is here with us today?

21 A. Yes.

22 Q. And so that was Vinny with your dog Daphne or

23 was --

24 A. Yes.

25 Q. Okay. Daphne wasn't his?

26 A. No, I was visiting and she liked him.

1 Q. Okay. And did you take that photograph?
2 A. Yes, I did.
3 Q. How did you know Vinny?
4 A. He's my brother-in-law. Was my brother-in-law.
5 Q. Okay. Where did he live on November 8, 2018, if
6 you know?

7 A. 5471 South Libby Road. I believe he was in space
8 37. It was Holly Hills Mobile Home Court.

9 Q. Did you live near him?

10 A. Seven houses away.

11 Q. Did Vinny -- did you evacuate the Camp fire on
12 November 8, 2018?

13 A. Yes, I did.

14 Q. Okay. Did Vinny evacuate with you?

15 A. No.

16 Q. Did Vinny survive the fire?

17 A. No.

18 Q. Did you do everything in your power to convince
19 him to leave with you?

20 A. Absolutely, I did.

21 MS. DUPRE-TOKOS: Okay. Does anyone have any
22 questions? Then madam foreperson will read you an
23 admonishment and you can get on the road.

24 THE WITNESS: Thank you.

25 GRAND JURY FOREPERSON: Ms. Carota, you are
26 admonished not to discussion or disclose at any time

1 outside of this jury room the questions that have been
2 asked of you or your answers until authorized by this
3 grand jury or the Court.

4 A violation of these instructions on your part
5 may be the basis for a charge against you of contempt of
6 court. This does not preclude you from discussing your
7 legal rights with your own attorney.

8 Ms. Corota, what I have just said is a warning
9 not to discuss this case with anyone except the Court,
10 your lawyer, or the district attorney.

11 Do you have any questions?

12 THE WITNESS: No, I don't. Thank you.

13 GRAND JURY FOREPERSON: Thank you for your time
14 today.

15 GRAND JURY SECRETARY: Thank you.

16 GRAND JUROR NUMBER SEVENTEEN: Sorry, it took a
17 minute there --

18 MR. NOEL: Okay.

19 GRAND JUROR NUMBER SEVENTEEN: -- out there. Daphne
20 wanted to meet me first.

21 [Witness enters the courtroom.]

22 GRAND JURY FOREPERSON: Who is this?

23 MR. NOEL: Investigation Patterson.

24 GRAND JURY FOREPERSON: Okay, sorry.

25 THE WITNESS: That's okay.

26 MR. NOEL: Oh, forgot to hand out the handouts.

1 GRAND JURY FOREPERSON: Investigator Patterson, if
2 you can raise your right hand to be sworn, please.

3	THE WITNESS: Sure.
---	--------------------

4 GRAND JURY FOREPERSON: Investigator Patterson, do
5 you solemnly swear that the evidence you shall give in
6 this matter pending before the grand jury shall be the
7 truth, the whole truth and nothing but the truth so help
8 you God?

9 THE WITNESS: I do.

10 GRAND JURY FOREPERSON: Thank you. Have a seat,
11 please.

12	MS. DUPRE-TOKOS: Two for Doug?
----	--------------------------------

13 MR. NOEL: Two.

14 MS. DUPRE-TOKOS: Aren't you special?

15 THE WITNESS: Excuse me?

16 MS. DUPRE-TOKOS: You've got two packets.

17 MR. NOEL: The second one is much more -- the first
18 one is boring, the second one is fun.

19 MS. DUPRE-TOKOS: Which one is the first one?

20 MR. NOEL: Are we ready?

21 GRAND JURY FOREPERSON: We are ready to proceed.

22

23 EXAMINATION

24 BY MR. NOEL:

25 Q. Investigator Patterson, could you please state
26 your full name, spelling your last name for the record?

1 A. Douglas Patterson, P-A-T-T-E-R-S-O-N.

2 Q. By whom are you employed?

3 A. The Butte County District Attorney's Office.

4 Q. In what capacity?

5 A. As a DA investigator.

6 Q. How long have you been in law enforcement?

7 A. 24 years.

8 Q. Can you walk us through your law enforcement
9 career?

10 A. Sure. Starting with the Riverside County
11 Sheriff' Office in 1996. Stayed there until 2003.
12 Lateraled over to the Butte County Sheriff's Office in
13 2003, and then lateraled over to the Butte County District
14 Attorney's Office three years ago.

15 Q. Do you have any specialized training or
16 experience in law enforcement?

17 A. Yes.

18 Q. Will you tell us about that?

19 A. Sure. Currently kind of doing two jobs. My
20 specialty is illegal hash oil labs and large scale cartel
21 marijuana grow investigations.

22 Q. How long have you been doing marijuana
23 investigations?

24 A. Officially, nine years and about -- I have
25 another five years to that before then. I was assigned to
26 the Butte County Sheriff's Office Special Enforcement Unit

1 as a deputy, and then -- or as a detective, and then
2 stayed there for about three years as a DA investigator as
3 well.

4 Q. All right. Do you have any experience with
5 helicopters?

6 A. Yes.

7 Q. What kind of experience with helicopters?

8 A. I'm a stable master. What that means is we know
9 all the safety features of the helicopter, we're observers
10 in the helicopter. I have gone to Air Ops school, which
11 is learning to spot marijuana from an aerial platform, be
12 it from a plane or a helicopter. Also we do long line.
13 Long line is when we're actually on about 100 -- 100 --
14 it's a 100 to 150-foot rope, where he hook into our
15 harness and get STABO'd from point A to point B while
16 dangling under the helicopter, so very boring.

17 And we also hang outside the helicopter on the
18 skids for various reasons.

19 Q. Why don't you explain what STABO is?

20 A. STABO is just -- it's a term that you use when
21 you're actually on -- on the long line, on that 100 to
22 150-foot rope and hooked into the harness. And what it is
23 is it's a very, very quick form to get from point A to
24 point B where a helicopter might not be able to land with
25 a heavy force. The pilots that we have are very good.
26 They can put us -- put me in an area about three-foot in

1 diameter just by dropping me in, I unhook, and the
2 helicopter takes off.

3 Q. So we talked about being hooked to a rope, you're
4 talking about hanging on a rope under a helicopter, and
5 flying into a location?

6 A. That is correct.

7 Q. All right. So you spend a lot of time in
8 helicopters, it sounds like?

9 A. Yes, about 15 years.

10 Q. Are there local law enforcement pilots?

11 A. Yes.

12 Q. And do you work with them often?

13 A. I do.

14 Q. Who are the pilots?

15 A. Jake Hancock, Scott Steele, Don McLean and James
16 Marshall.

17 Q. And who does Hancock work for?

18 A. The DA's office.

19 Q. Now, were you assigned to look into the
20 helicopter aspects of this case, this investigation?

21 A. Yes, I was.

22 Q. And did that include obtaining records from
23 helicopter companies doing work with PG&E?

24 A. Yes.

25 Q. And what were those helicopter companies?

26 A. A&P like Adam and Paul. And PJs, like Paul and

1 John.

2 Q. All right. So were grand jury subpoenas sent to
3 those two helicopter companies?

4 A. Yes.

5 Q. Did you have contact with PJ Helicopters?

6 A. Yes.

7 Q. And specifically, did talk you to the president
8 of PJ Helicopters, Mark Gonsauls?

9 A. Yes.

10 Q. And that's G-O-N-S-A-U-L-S. Were you able to
11 determine if PJ had any relevant records or any records
12 relevant to this investigation?

13 A. Yes.

14 Q. What did you determine?

15 A. That they did not.

16 Q. How about A&P?

17 A. Yes.

18 Q. All right. So let's move on to our next slide.
19 One more. One more. And there we have -- you have in
20 front of you Exhibit 1313.

21 [Exhibit No. 1313 was identified.]

22 BY MR. NOEL:

23 Q. Do you recognize Exhibit 1313?

24 A. I do.

25 Q. What is 1313?

26 A. This is a subpoena for A&P helicopters to produce

1 records for any and all policies pertaining to PG&E
2 transmission -- transmission lines and inspections of the
3 115 --

4 Q. Right.

5 A. -- lines.

6 Q. Specifically for flight logs, bills and invoices
7 for PG&E flights?

8 A. That is correct.

9 Q. All right. Based upon this subpoena, did A&P
10 send records?

11 A. Yes, they did.

12 Q. And did you go through those records and cull out
13 the relevant records?

14 A. Yes.

15 Q. All right. Let's move on to 1314.

16 [Exhibit No. 1314 was identified.]

17 BY MR. NOEL:

18 Q. And tell us what 1314 is.

19 A. 1314 is one of the records that they submitted.
20 The records included 20 -- beginning 2010 to 2019. And
21 what I did was, I ended up pulling everything that had to
22 do with the Caribou-Palermo 115kV line, and this was one
23 of them dated -- the invoice is dated 11/22 of 2010.

24 Q. All right. And so 1314 -- sorry -- consists of
25 three pages, correct?

26 A. That is correct.

1 Q. So we have the invoice, and then we can go on.
2 The helicopter patrol log sheet.

3 A. Correct.

4 Q. And what's the final page?

5 A. The time in.

6 Q. All right. The daily flight log.

7 A. Correct.

8 Q. And the daily flight log shows the actual TACH
9 readings for each flight, correct?

10 A. That is correct.

11 Q. And the -- explain to us what TACH readings are
12 and why they're relevant?

13 A. TACH readings are basically the -- it's like the
14 odometer of a vehicle, and it has -- it -- it, basically,
15 keeps track of the flight hours on a helicopter. So the
16 helicopter pilots know when to do scheduled maintenance
17 and -- and whatnot so just like your vehicle. You know,
18 every five thousand or ten thousand miles, you get a
19 change of oil so you keep track of your odometer, and it's
20 very similar to a helicopter. And then, of course, they
21 keep records. Any time they start up that ship, they're
22 supposed to put in their flight log who was on board, and
23 sometimes they'll put what it's for.

24 Q. Okay. And let's walk through this one just as an
25 example. Looks like it goes from Richvale to Chester.
26 Departure time, block out, 0900. Flight off, 130.0.

1 Do you have an idea of what those mean?

2 A. No. I -- no, I don't understand their -- their
3 logs. This is what I understand, the -- the hours that
4 they actually spent flying through the different lines.
5 That's what I am focusing on.

6 Q. All right. So for instance, Richvale to Chester
7 flight time, 1.3 hours. Chester to Richvale, flight time,
8 2.2 hours.

9 A. Correct. The flight times is -- is what I am
10 focusing on.

11 Q. And then the billing information on the top here,
12 2.2 Caribou-Palermo?

13 A. That is correct. That's 2.2 hours
14 Caribou-Palermo.

15 Q. So each of those records were received from A&P
16 via subpoenas sent out on behalf of this grand jury,
17 correct?

18 A. That is correct.

19 Q. Let's move on to 1315.

20 [Exhibit No. 1315 was identified.]

21 BY MR. NOEL:

22 Q. And if you can just walk us through 1315.

23 A. Sure. This one is dated -- invoice is dated 7/27
24 of 2011. It's very similar to the -- to the one previous.
25 I can see where it's -- what brought my attention to this
26 page, it clearly says "Caribou-Palermo, 115." It has the

1 hours of 3.2 hours. It gives the rate, and it gives the
2 dollar amount of what A&P charged.

3 Q. Okay. And the next page. Just if you can walk
4 us through each page of each different exhibit.

5 A. Sure. Again, transmission line helicopter patrol
6 log sheet. Second one down -- I am pointing to the --
7 right here [indicating] where it says "Caribou-Palermo."
8 It gives the TACH out, TACH in. And total hours 3.2.
9 Next page, again, it is the daily flight log. I'm looking
10 under the billing information on what they did. They had
11 a fuel truck for this one. No overnight stay for the
12 helicopter. No long line. That's, like, the stable line
13 that we talked about where they would be shuttling
14 equipment, and then they're just logging in their flight
15 times.

16 Q. All right. Let's move on to 1316.

17 [Exhibit No. 1316 was identified.]

18 THE WITNESS: Okay. This is an invoice dated 8/1 of
19 2011. Again, caught my attention because it has
20 Caribou-Palermo. Hours: .6. The rate \$700. The amount
21 is -- \$420 is what A&P charged. Again, transmission line
22 helicopter patrol log sheet, gives the TACH time and,
23 again, it matches .6 hours for the Caribou-Palermo. And
24 then, again, the daily flight log. No truck or overnight.
25 No long line. .2 hours of ferry time. So ferry time is
26 going from point A to point B.

1 Q. All right. And 1317.

2 [Exhibit No. 1317 was identified.]

3 THE WITNESS: Okay. 1317. Invoices dated 8/6/2012.
4 Routine patrol of Caribou-Palermo 115 line, and it's
5 2.5 hours. Again, helicopter patrol log sheet,
6 Caribou-Palermo. Looks like they've added a few lines at
7 Caribou-Palermo and a few other lines because now they've
8 broken it down to Caribou-Palermo. They spent .4 hours,
9 Caribou -- Caribou and I think it's Pease .5, and then
10 Glenn, 1.1, so that's how they got to the total of 2.5.
11 They broke it -- they broke the lines down, which is real
12 common.

13 Q. All right.

14 A. And then, again, daily flight log.

15 Q. And the daily flight log, unlike the others,
16 doesn't break anything down, just as one line showing a
17 total of 2.5 hours flight time?

18 A. That is correct.

19 Q. Okay. All right. And now we're onto 1317?

20 A. Okay. This one -- that's why the Feather River
21 --

22 Q. Sorry, 1318.

23 [Exhibit No. 1318 was identified.]

24 THE WITNESS: On Exhibit 1318, this one actually
25 didn't say Caribou-Palermo, but it did say Feather River
26 Canyon. So very, very generic because there's different

1 lines. But I did include it and I highlighted Feather
2 River Canyon on there.

3 Q. And then there's the daily flight log?

4 A. That is correct.

5 Q. And, again, it doesn't line out what lines were
6 done, it just shows two lines and, what, 7.8 hours?

7 A. Yes, 7.8 hours. Like I said, I included it just
8 cause our Caribou-Palermo line is in the Feather River,
9 and that's what they listed it as.

10 Q. All right. 1319.

11 [Exhibit No. 1319 was identified.]

12 THE WITNESS: Okay. 1319 is an invoice dated 4/28 of
13 2014. Again, it's just the -- the invoice. The next page
14 breaks it down. This one is -- I circled "nonroutine."
15 So it's not a routine parole, so they were doing some type
16 of work on the -- you see patrol items, asset line -- the
17 name: Caribou-Palermo.

18 Q. Okay. And let's back up one page, because we've
19 had a change now between 2012 and 2014 where we no longer
20 have the transmission line helicopter patrol sheet. Now
21 we have a request summary.

22 A. That is correct.

23 Q. All right. Go ahead.

24 A. And then this is the daily flight log where they
25 break it down. It looks like they have a flight time of
26 1.8. Doesn't explain what -- what they -- what they did,

1 but it was not -- nonroutine.

2 Q. Right. Up on -- up on the top under "customer,"
3 it says -- does it say PG&E, and then in parenthesis,
4 "NERC patrol"?

5 A. Yes, it does.

6 Q. All right. Let's move onto 1319. I'm sorry,
7 1320.

8 [Exhibit No. 1320 was identified.]

9 THE WITNESS: Okay. Invoice dated 8/11/2014. Again,
10 nonroutine. And it looks like they did two line -- that
11 was two different lines, one Hat Creek #1 and
12 Caribou-Palermo, and then they're breaking it down -- or
13 actually they total it up to 4.9 hours.

14 Q. And that was for how many lines?

15 A. That's for two. Hat Creek and Caribou-Palermo.

16 Q. Okay. Hat Creek, Westwood and Caribou-Palermo?

17 A. Correct.

18 Q. And does -- does that anywhere on -- on any of
19 that paperwork have ferry time?

20 A. Not that I see, unless I'm missing it. I just
21 see PG&E as a customer.

22 Q. I guess what I was asking is, do you know where
23 Hat Creek is?

24 A. Yeah, way above Highway 36, I believe.

25 Q. Do you know where Westwood is?

26 A. Yes, the other side. Well, east of Hat Creek.

1 Q. Right. Not real close to Caribou?

2 A. No, not at all.

3 Q. Okay. So nowhere then does it break down the
4 flight time from either Caribou-Palermo to Hat Creek
5 Westwood or Hat Creek Westwood to Caribou-Palermo?

6 A. That's is correct.

7 Q. That is just --

8 A. It does not break it down.

9 Q. -- 4.9-hours to do both of them with the ferry
10 time?

11 A. That is correct.

12 Q. All right. Let's go to 1322 -- or 1321.

13 [Exhibit No. 1321 was identified.]

14 THE WITNESS: Okay. 1321, invoice dated 7/21 of
15 2015. Request summary. This is actually -- patrol time
16 is listed as routine. This is when they start adding a
17 whole bunch of different lines together. Again, this one
18 caught my attention because the second one, up from the
19 bottom, says, "Caribou-Palermo." Then we have the daily
20 flight log, where it just gives total flight time of -- it
21 was 6.0, and then they crossed it out and put 6.4. So
22 again, it's not broken up on what they did. It's just
23 total time with all those different times added up.

24 Q. Okay.

25 A. But it is a routine, not a nonroutine like the
26 other ones.

1 Q. And there's a note in the right-hand column?

2 A. Where? Down at the bottom or something?

3 Q. The far right.

4 A. Oh, it says no ferry.

5 Q. Okay.

6 A. Yeah, no ferry.

7 Q. What is your understanding that means?

8 A. That means that they just basically -- if it was
9 me, I would just -- they're -- they're starting at point A
10 and doing all of these lines as they -- as they go along.
11 But, I mean, they don't talk about fuel trucks. They have
12 fuel truck as "no." But I -- I know our ships, we can't
13 be in the air for 6.4 hours without refueling at some
14 point, so that's a little odd.

15 Q. All right. So 1322.

16 [Exhibit No. 1322 was identified.]

17 THE WITNESS: Okay. 1322, invoice dated 12/17 of --
18 of 2015. This is another nonroutine. Listed as
19 Caribou-Palermo. It looks like that that is the -- the
20 only one. Down here it says pick-up location. Table
21 Mountain Substation. Estimated hours of use is 6.0, but
22 that's the estimated, and it looks like, I think, that is
23 only page we have own that one.

24 Q. Okay. All right. 1323.

25 [Exhibit No. 1323 was identified.]

26 THE WITNESS: 1323, invoice dated 8/11/2016. This

1 one is a -- is a routine. You can see that there is a lot
2 of line -- a lot of different power lines that they're
3 talking about here. One of them being the
4 Caribou-Palermo. It's the third one down from the top.
5 Talks about pickup location, A&P hanger. Pick-up time,
6 0700, and six hour estimated time of use. And now they
7 have included -- sometimes I have seen this; sometimes I
8 don't, they just kind of have a little date on scheduling.

9 Q. Right. Calendar page?

10 A. Yeah, exactly.

11 Q. And then they have their daily flight log.

12 Flight time went over the six hours, and it went to 7.4
13 with a standby time of 2.6.

14 Do you understand what the "standby time" means?

15 A. I -- I don't. The only -- if it was me, I would
16 think that they landed while somebody is doing work and
17 they're standing by for the work to be done, and then
18 they're getting back on the ship and taking off to go to
19 another line.

20 For us, you know, at the sheriff's office
21 helicopter, that's what it would mean to us.

22 Q. Okay. All right. 1324.

23 [Exhibit No. 1324 was identified.]

24 THE WITNESS: Okay. 1324, again, invoice dated
25 8/15/2016. This one is a routine. Caribou-Palermo is,
26 again, third one down from the top. Here we have the

1 daily flight log. 6.8 eight hours. Standby time of 2.7,
2 and doesn't explain what they did other than the fact that
3 it said it's a routine.

4 Q. All right. 1325.

5 [Exhibit No. 1325 was identified.]

6 THE WITNESS: 1325 is an invoice dated
7 January 31, 2017. Nonroutine. Caribou-Palermo. And
8 looks like they had a standby time of 4.0 hours, and then
9 they've broken it up, which I don't -- I don't understand
10 the break up, because it just says that they are just
11 doing a -- they're look -- working on one line,
12 Caribou-Palermo. So I'm not sure how they broke this up.
13 But you have a .2, and then you have 1.5/1.7, a .3/2.0 so
14 they broke it up somehow.

15 BY MR. NOEL:

16 Q. All right. 1326.

17 [Exhibit No. 1326 was identified.]

18 THE WITNESS: Okay. This one is dated 9/13/2017.
19 There's two invoices for the same date. This is going be
20 invoice number 7901, and this is a routine Caribou --
21 let's see, Caribou-Palermo is the third one up from the
22 bottom for patrol items. Picking up at the A&P hanger at
23 0730 hours. Estimated use is eight hours, and it looks
24 like they did 8.75 hours, and it says under the notes
25 "patrol."

26 ///

1 BY MR. NOEL:

2 Q. All right. And 1326?

3 A. 27.

4 Q. 27, I'm sorry.

5 [Exhibit No. 1327 was identified.]

6 THE WITNESS: 1327, again, same date, 9/13/2017, but
7 invoice number of 7898. This is going to be routine.
8 With Caribou-Palermo, the third one up from the bottom.
9 And looks like -- let's see, total flight time 4.9, 4.9
10 and 3.0 it looks like. Doesn't say -- actually, it just
11 says "patrol." But it's a patrol of multiple different
12 lines where they've combined it all.

13 BY MR. NOEL:

14 Q. All right. And finally on this section, 1328.

15 [Exhibit No. 1328 was identified.]

16 THE WITNESS: 1328, again, invoice dated 9/12/2018.
17 Another request summary. And Caribou-Palermo is kind of
18 right in the middle.

19 BY MR. NOEL:

20 Q. This page is kind of interesting.

21 A. Uh-huh.

22 Q. Do you see this page with in any other -- any
23 other patrol?

24 A. No, it's much more detailed.

25 Q. Go on.

26 A. And then the -- the flight hours that are broken

1 up: 2.8, 2.9, 5.7, and it's listed as patrol.

2 Q. All right. So all of those were records that
3 were provided pursuant to grand jury subpoena by A&P?

4 A. That is correct.

5 Q. And the records provided by A&P start in 2010?

6 A. Correct.

7 Q. And go all the way through to 2018?

8 A. That is correct.

9 Q. The records go through 2019, but the relevant
10 records go through 2018?

11 A. That is correct.

12 Q. And those records that we just looked at, 1320 --
13 1314 through 1328 are the -- the records relevant to the
14 Caribou-Palermo line?

15 A. Yes.

16 Q. Okay. All right. So now we're going to the fun
17 stuff.

18 As part of your looking at the helicopter
19 evidence, were you asked to take up the helicopter into
20 the Feather River Canyon and video segments of the
21 Caribou-Palermo line?

22 A. Yes.

23 Q. Why don't you explain to us what you did?

24 A. So Jake Hancock was our pilot. Nick Moore was in
25 the -- the back of the -- the sheriff's helicopter. He
26 was our navigator, so he directed us to our starting point

1 and our ending point. What I mean by that is, what tower
2 we wanted to start at and what tower we wanted to end at.
3 There was a total of 19 towers that we inspected. I am --
4 in a helicopter, the pilot typically sits on the right
5 side of the helicopter, I'm in the front left side of the
6 helicopter. And we had the doors on the ship, so I have a
7 little window that's open, that's all I have, and I'm
8 holding a GoPro camera on a stick and trying my best to
9 keep it from not shaking and take some good video.

10 And so what you see when we look at this video is
11 -- it's GoPro video. It looks like we're actually far
12 away from the power lines, but we're actually not. It's
13 just the way that the GoPro works. It -- it -- it's
14 almost kind of double the distance of what we actually
15 were. And what I was trying to do was, one, do a first
16 video. We were about -- between 40 and 50 knots going
17 from our starting tower to the end of that 19th tower, and
18 then when we got back to the office, we timed that flight.
19 Jake, who was the pilot, came back around and now we did a
20 more detailed inspection. Where, again, I'm using the
21 GoPro and we're getting nice and close to the power lines
22 to where we -- I -- I am looking out the window, and I can
23 see very good detail of -- of the lines. If I had
24 Gyro-stabilizing binoculars, I would be able to see an
25 awful lot, but in even just me visually looking at the
26 lines, I could see a lot.

1 So I am holding the camera steady and -- and just
2 filming the inspection -- a much more detailed inspection.
3 Jake then goes to the next tower, we do the same thing.
4 So the video is continuous. When we get back to the
5 office, I am looking at the video and I am starting a
6 stopwatch on the time that the tower goes into the frame
7 of the GoPro to the time that it's out of the frame of the
8 GoPro and those are my times.

9 In reality, I'm actually doing on inspection even
10 longer, because the GoPro is on the side of the ship, and
11 I -- I didn't want to fudge the time, so I wanted to start
12 it with when it's actually seen with the GoPro, but when
13 you're approaching the tower, I'm looking out the front,
14 so I can actually start my inspections a lot sooner, and I
15 can also start it a lot -- end it a lot later, because as
16 Jake is flying away, I can still see the -- still see the
17 tower. So the times are -- are actually even longer than
18 what I have actually documented on the GoPro.

19 Q. Can you explain what a knot is?

20 A. Yes. It's -- in helicopter terms, it's a speed.
21 It would be miles per hour for a car. And I have no clue
22 what a knot is, how -- how many -- one knot to a mile per
23 hour, so I did a conversion and I included it on the
24 screen.

25 Personally, as a passenger, I don't care how fast
26 Jake flies, I just don't want him to drop from the sky.

1 But I asked Jake -- because it is important on how he --
2 how fast are we flying if we're flying -- you know, doing
3 a very quick -- a quick inspection of the line, and he's,
4 like, "We are between 40 and 50 knots," and that's what he
5 stayed at on that first video. The next video is where
6 there is really no knots, because we're at a hover. We're
7 literally hovering around the tower, and there's a huge
8 fluctuation between the speed between -- okay, we've done
9 a hover, now we're going to the next tower so that speed
10 estimate fluctuates between the towers very close versus
11 the next one is far. Jake will accelerate a little faster
12 and get to the next one.

13 Q. Now, before you did this, you had lots of
14 information, correct?

15 A. Yes.

16 Q. You had already received all of the information
17 from A&P?

18 A. Yes.

19 Q. And you reviewed all of the flight logs and
20 everything else?

21 A. Yes.

22 Q. Correct? And so you had an idea of -- as to how
23 long the patrols in the Caribou-Palermo were taking the
24 last two years?

25 A. Somewhat. Because you saw the records are not --
26 are not the greatest but had a very good estimate.

1 Q. Right. You also had the benefit of having
2 interviewed or been present for interviews of many of the
3 troublemen in PG&E before?

4 A. That's -- correct. That's what I am -- I am
5 focusing on, what they actually said. The people that
6 were in the ship doing it.

7 Q. Right. One of those being Chuck Stinnett?

8 A. Correct.

9 Q. All right. So do you want to pull up that
10 PowerPoint?

11 A. Sure. This one will be more exciting than the
12 first one.

13 Q. All right. So let's go onto the -- now, can you
14 briefly explain this second slide for us.

15 A. Okay. So the date of our flight was
16 February 6, 2020. We inspected 19 towers during our fast
17 pass. We used Butte County Sheriff's Helicopter Nora 48
18 -- or 488 Bravo Charlie. The pilot is Jacob Hancock. He
19 works for DA's office. I am the observer and
20 videographer, and Nick Moore, who also works for the DA's
21 office is the observer/navigator.

22 Q. All right. And then the background is a -- is a
23 Camp fire photo, correct?

24 A. Correct.

25 Q. All right. So let's go onto the next slide and,
26 before we start the video, I want you to explain what this

1 is and explain to the jurors how you built this?

2 A. Okay. So what this is -- I used Google Earth,
3 dropped pins on the 19 towers that we in -- that we did
4 inspections. Right here. Everybody pretty much knows,
5 hopefully, where Highway 70 and the Pulga bridge is. So
6 that's where we started. This gives us a good reference
7 point. If I say, "Hey, we did inspections of 19 towers in
8 the Feather River," you're not going to know where --
9 like, which ones. So that's why I did a Google Earth
10 picture, dropped the pins on the tower names and, again,
11 this is the tower that is closest to the Pulga bridge.
12 This is the Caribou-Palermo 115kV line. That's what we're
13 focused on, and we're traveling upstream north on
14 Highway 70, ending at, it looks like, 025 -- I can't tell
15 if it's a 25 or 2 -- I think it's 26/218. And that's
16 where we -- that's where we ended, so when you see -- and
17 then the next slide, what it's going to show is on Google
18 Earth, you can actually do a -- kind of like a little
19 flight, and that's me doing the flight, and then I
20 converted it and downloaded it into the PowerPoint.

21 This draw right here, this is going to be the
22 town of Pulga, and I will explain it now, because when we
23 start the more detailed inspection, I can't stop that
24 PowerPoint or we're going to have to start over and --
25 when we go into Pulga, we actually do 17 detailed
26 inspections instead of 19, and the reason why is two of

1 the towers are right next to the residence that are there
2 and we didn't want to disrupt them. So you'll see Jake,
3 he kind of just skipped those -- those two towers so we
4 don't bother those folks, and we come up over here and
5 start on -- actually, I think it's on this side on a tower
6 that looks like we are close to Pulga. We are, but
7 there's a huge tree buffer, which kind of helps out versus
8 the other two that we skipped.

9 Q. All right. I forgot to ask that on this. This
10 is Exhibit 1329, correct?

11 A. Correct.

12 [Exhibit No. 1329 was identified.]

13 BY MR. NOEL:

14 Q. And just to make sure we understand it, we have
15 the pin that shows your starting tower where you began
16 your -- your inspection, and then each one of the pins is
17 marked with a tower number, correct?

18 A. That is correct.

19 Q. And those tower numbers are based upon PG&E
20 records?

21 A. That is correct.

22 Q. And as we've gone through, the -- the PG&E
23 inspection records include GPS coordinates for every
24 single one of the towers, correct?

25 A. Correct.

26 Q. So you're able to take those GPS coordinates,

1 plot them into Google Earth and that gives you the exact
2 location of the tower?

3 A. Correct. And using Google Earth, when you zoom
4 in, you can actually see the towers. And something else
5 to keep in mind, when I'm filming, I actually have my
6 Google Earth -- I have two computer screens -- so I have
7 Google Earth on the right-hand side, and as I'm videoing,
8 I'm matching up the image to what I see on Google Earth to
9 what I'm actually filming, so I know that if I say I'm on
10 that tower, that's correct because I've already matched it
11 to the Google Earth tower.

12 Q. All right. So why don't you go ahead and run the
13 video?

14 [Whereupon, a video was played for the grand jury.]

15 THE WITNESS: So we have the Pulga bridge, starting
16 tower is just above it. Town of Pulga is in that draw.
17 And we skipped 232, 231 and, again, resumed at 230, when
18 we do the detailed inspection.

19 BY MR. NOEL:

20 Q. All right. So that's the video that you put
21 together using Google Earth, correct?

22 A. Correct.

23 Q. That's Exhibit 1329, which is marked in -- on the
24 CD in front of you?

25 A. Correct.

26 ///

1 BY MR. NOEL:

2 Q. All right. So let's move on to 1330.

3 [Exhibit No. 1330 was identified.]

4 BY MR. NOEL:

5 Q. And if you can explain to us what 1330 is?

6 A. 1330 is going to be -- our first pass through the
7 canyon. This is at 40 to 50 knots. And it's, again,
8 starting from the starting point tower ending to the 19th
9 tower.

10 Q. And Exhibit Number 1330 is on the DVD, if I said
11 CD earlier on 1329, I was wrong. It should have been DVD.
12 This one is on a DVD sitting there in front of you,
13 correct?

14 A. Correct.

15 Q. Now, why don't you go ahead and play Exhibit 1330
16 for us.

17 [Whereupon, a video was played for the grand jury.]

18 THE WITNESS: So 40 to 50 knots, converted to miles
19 per hour is 46.03 to 57.5 miles per hour. That's a lot
20 easier to understand than knots.

21 It's the town of Pulga down there. So that was
22 3 minutes 16.57 seconds from our starting target to the
23 end.

24 BY MR. NOEL:

25 Q. And how did you pick altitude?

26 A. I think Nick was the one that kind of gave us the

1 altitude just to stay at to where we had a very good
2 visual of the lines, but we were still doing the 40 to 50
3 knots.

4 And, again, I -- I can't stress enough, it looks
5 like we're far away from the lines, but we're actually --
6 we're not too far away. It's just the way that the video
7 camera captures the image. I mean, I can't -- I'm not
8 hovering over the lines where I can see small minute
9 problems with the lines, but I would be able to see, like,
10 if a -- like, a tree was hanging over the line even at
11 that speed, but...

12 Q. You can see if all the insulators are actually
13 hanging?

14 A. Yes.

15 Q. But not much more detail at that?

16 A. That would be correct.

17 Q. All right. So let's move onto 1331.

18 [Exhibit No. 1331 was identified.]

19 BY MR. NOEL:

20 Q. Explain to us what 1331 is?

21 A. Okay, 1331 is going to be the much more detailed
22 inspection. This -- the air speed is going to be
23 basically a hover, because that's all we care about.
24 We're kind of hovering over each one of the towers and
25 just kind of looking for -- for problems with the towers
26 and, again, we're not, you know, PG&E experts. We're kind

1 of just -- you know, if we were doing it, this is how we
2 would do it.

3 We're trying -- we can't do a full 360 around the
4 towers either, because we do have -- if you can see, this
5 is the -- this is the lowest line is what we're focused
6 on. This is the Caribou-Palermo 115. If we -- obviously,
7 as the slope comes up, we can't get over here, because,
8 one, we have other towers and lines so we're -- we're kind
9 of hanging out on either this side of the line --
10 actually, starting from the back to the side to the front
11 and over the top. But because of the terrain and other
12 lines, we might not sometimes be able to get to that -- to
13 that backside.

14 Q. All right. And this is -- this CD marked Exhibit
15 1331?

16 A. The DVD.

17 Q. DVD. I'm showing my age. Marked 1331.

18 A. Yes.

19 Q. Go ahead and play it.

20 A. Okay. And remember, I can't pause it.

21 Q. Yeah, I know.

22 A. Okay.

23 [Whereupon, a video was played for the grand jury.]

24 THE WITNESS: So at the arrows, what I am saying is,
25 at this starting point tower from the time it came into
26 focus to the time we left it, I was able to do an

1 inspection for 41.5 seconds so when you see the arrow --
2 arrows that's what it means.

3 So these are the two towers that we skipped. As
4 you can see, we don't have a whole lot of buffer with
5 trees, and the Pulga folks are out there. This one, we
6 have a -- a good buffering with the trees, and so we start
7 focusing on the next tower.

8 BY MR. NOEL:

9 Q. All right. Go ahead and explain the next slide
10 to us.

11 A. Okay. So the flight speed, like I said, it's
12 going to be a hover because we're going doing a detailed
13 inspection. We expected 17 towers, instead of the 19
14 because we bypassed two at Pulga. So when I say "total
15 inspection time," that's just the -- the hover time over
16 the towers. It came to 10 minutes, 26 seconds for 17
17 towers.

18 The total time including going in between the
19 different towers came to 16 minutes and ten seconds.

20 Q. All right. And did you put together a -- a chart
21 showing the various times of -- for lack of a better term,
22 "times on target," on target for each of the towers you
23 inspected?

24 A. Yes.

25 Q. All right. That would be Exhibit 1332, you
26 should have that in front of you.

1 A. I don't. I -- I was looking for one. I don't
2 have one.

3 MS. DUPRE-TOKOS: I don't have one either. Are there
4 any extras of 1332?

5 THE WITNESS: I have extras in my bag if you need it.

6 GRAND JUROR NUMBER FOUR: Oh, that one sheet. The
7 one list.

8 GRAND JUROR NUMBER FIFTEEN: Oh, you got it.

9 MR. NOEL: We will slap a tag on that.

10 THE WITNESS: Okay.

11 BY MR. NOEL:

12 Q. So describe for us what 1332 is?

13 A. This is a -- basically, I took all the -- the
14 second arrows and put them on paper basically. This is
15 the detailed tower inspection times of just the hover. So
16 as you can see, I have towers -- let's see, 1 through 19,
17 and then at the very bottom, it has the total hover
18 inspection time and the total flight time.

19 Q. All right. Here, we have an exhibit sticker.

20 A. Let me just make sure I didn't miss it in here.

21 BY MR. NOEL:

22 Q. Stick that in the corner. Stick that in the --
23 all right.

24 [Exhibit No. 1332 was marked for identification.]

25 BY MR. NOEL:

26 Q. So this is the part where math comes in.

1 A. I was hoping you weren't going to say that.

2 Q. If you add all of these together, let's -- I am
3 going to unplug you and plug mine back in. Come on,
4 sucker. There we go. And there's 1332 up on the screen
5 now.

6 So if we take all of these times on target,
7 there's 17 of them, we add them all together and we divide
8 them by 17. That should give us 36.23 seconds per tower?

9 A. That is correct. Of hover time.

10 Q. Right. And extrapolated out over the -- all of
11 the towers, the 464 towers of the Caribou-Palermo line,
12 that would mean that the -- at 36.23 seconds per tower,
13 there would be 4 hours, 40 minutes time on target?

14 A. Correct. Just hover time.

15 Q. Just hover time?

16 A. Just hover time.

17 Q. And then, one of the other things you can do with
18 the video is not only tell the time on target, but you can
19 tell the time that it takes you to get from target to
20 target.

21 A. Correct.

22 Q. So it was 18.10 seconds of ferry time between
23 towers is the average ferry time, correct?

24 A. That is correct.

25 Q. And, again, extrapolated out over the length of
26 the Caribou-Palermo that would give us 2 hours 20 minutes,

1 approximately of ferry time between towers, correct?

2 A. That is correct.

3 Q. Which would give us a total inspection time the
4 way you guys did it at seven hours?

5 A. Correct.

6 Q. Approximately, seven hours?

7 A. Yes.

8 Q. All right.

9 A. Not including refueling. That's straight flight
10 time.

11 Q. Right. And then the first one, the shorter video
12 that you did, the inspection of nine towers in the --

13 A. 19.

14 Q. -- in 3 minutes, 16 and a half seconds. That was
15 nine towers?

16 A. 19.

17 Q. 19, I'm sorry. I can't read my own writing.

18 And that would extrapolate out, based -- if you
19 did the same math, to I think a little over two hours to
20 do the entire line, correct?

21 A. Correct. At 40 to 50 knots.

22 Q. All right. I don't think I have anything
23 further.

24 Jen, do you have any follow-up questions?

25 MS. DUPRE-TOKOS: I don't.

26 MR. NOEL: Ladies and gentlemen, any juror questions?

1 Oh, I was going to come to you.

2 GRAND JURY FOREPERSON: That's okay.

3 BY MR. NOEL:

4 Q. All right. Using your experience, do you think
5 that you had sufficient time and quality of visualization
6 to adequately inspect the condition both overall and in
7 detail of each tower you inspected?

8 A. In the hover, I can see a lot of detail, and if
9 it was me doing a more detailed inspection, I would use
10 gyro-stabilizing binoculars, which is something we
11 actually use on the ship, so I'm very familiar with them
12 and I would be able to see quite a bit of detail on those.

13 Q. You were just using the naked eye?

14 A. Naked eye and I can see -- I mean, if you want to
15 talk about, you know, C-hooks or insulator damage from how
16 close Jake got to -- got to the towers, I can see a lot of
17 detail.

18 Q. And you're talking about in the hover?

19 A. In the hover. In the hover only. The 40 to 50
20 knots, the only thing I would be able to see would be,
21 like, obvious significant damage, towers that have come
22 down. Landslides, large trees. You know, in the lines of
23 -- if that -- if that ever happened, but not -- not
24 detailed.

25 MR. NOEL: All right. Any follow-up. Anybody want
26 to watch any of the videos again? Everybody want a break

1 because it's a little after 10:00?

2 MS. DUPRE-TOKOS: Yeah, we can take a break.

3 MR. NOEL: All right. So madam foreperson is going
4 to read you an admonition, and then you are free to leave.

5 GRAND JURY FOREPERSON: Investigator Patterson, you
6 are admonished not to discussion or disclose at any time
7 outside of this jury room the questions that have been
8 asked of you or your answers until authorized by this
9 grand jury or the Court.

10 A violation of these instructions on your part
11 may be the basis for a charge against you of contempt of
12 court. This does not preclude you from discussing your
13 legal rights with your own attorney.

14 Investigator Patterson, what I have just said is
15 a warning not to discuss this case with anyone except the
16 Court, your lawyer, or the district attorney.

17 Do you have any questions?

18 THE WITNESS: I don't.

19 GRAND JURY FOREPERSON: Thank you.

20 THE WITNESS: You bet.

21 GRAND JURY FOREPERSON: Thank you for your time
22 today.

23 THE WITNESS: Thanks.

24 MR. NOEL: Ready for a morning break?

25 GRAND JURY FOREPERSON: Yes, 15 minutes.

26

1 [Recess taken from 10:04 until 10:26 a.m. whereupon the
2 grand jury comes to order in Courtroom 9.]

3

4 GRAND JURY FOREPERSON: All members of the grand jury
5 are back from break and ready to proceed.

6 [Witness enters the courtroom.]

7 GRAND JURY FOREPERSON: Captain Hollstrom, before you
8 have a seat, would you please raise your right hand to be
9 sworn?

10 Do you solemnly swear that the evidence you shall
11 give in this matter pending before the grand jury shall be
12 the truth, the whole truth and nothing but the truth so
13 help you God?

14 THE WITNESS: Yes.

15 GRAND JURY FOREPERSON: Thank you, have a seat,
16 please.

17

18 **EXAMINATION**

19 BY MS. DUPRE-TOKOS:

20 Q. Good morning.

21 A. Morning.

22 Q. Could you please state your full name and spell
23 your last name for the record?

24 A. Shane Brandon Hollstrom. Last name is
25 H-O-L-L-S-T-R-O-M.

26 Q. Can everyone hear him okay? Can you pull the

1 microphone up a little closer?

2 A. Sorry, I can't get my knees under the desk here.

3 Q. Okay. Could you tell us where you're employed
4 and in what capacity?

5 A. I'm employed with CAL FIRE in the town of
6 Paradise as a fire captain.

7 Q. Okay. And how long have you been a fire captain?

8 A. Since 2010.

9 Q. Could you just give us a brief summary of your
10 experience as a firefighter? Where and, you know, for how
11 long?

12 A. Okay. In '95, I started with the Forest Service.
13 Various areas in Utah and California. In '99, I believe,
14 I came to CDF, worked with them for three seasons, and
15 then in 2002, I got hired with the town of Paradise Fire
16 Department until December of 2012 when they contracted us
17 over to the state, and so I have been at CAL FIRE since.

18 Q. So about how many years is that total
19 firefighting experience?

20 A. 24, 25 years.

21 Q. Now, do you have any medical training?

22 A. I do.

23 Q. And what is that?

24 A. Basic EMT and first responder training.

25 Q. And what does that mean you can do?

26 A. BLS, basic life support. CPR, first responder.

1 I can't push medicine, drugs, but everything else to
2 assist people, we can do.

3 Q. Okay. And how long have you been an EMT?

4 A. Since 19 -- January of 1997.

5 Q. And have you had to do periodic trainings to keep
6 your certification?

7 A. All through.

8 Q. Do you use your EMT training very often?

9 A. Every day when I'm at work.

10 Q. I'm glad it's when you're at work and not in your
11 real life.

12 A. It happens in real life too.

13 Q. In your career, have you seen people who have
14 been burned?

15 A. Yes.

16 Q. Okay. More than once?

17 A. Yes.

18 Q. Okay. Can you give us a -- even a rough estimate
19 of how many burn injuries you've seen in your career?

20 A. A lot. Hundreds.

21 Q. And are you familiar with the difference between
22 second-degree and third-degree burns?

23 A. Yes.

24 Q. Can you just briefly explain the difference to
25 us?

26 A. Basically, a first-degree burn would be, like, a

1 sunburn, irritated skin, red, painful to the touch.

2 Second-degree burns: More irritated, blistering, more

3 painful to the touch. And third-degree is extreme.

4 Horrible blisters, sloughing of the skin, skin melting
5 off.

6 Q. In extremely -- so you said skin sloughing off,
7 that's basically just the skin coming off of a burn
8 victim?

9 A. Yes.

10 Q. And then is that considered a serious injury
11 based on your training and experience?

12 A. Extremely.

13 Q. Can it be life threatening?

14 A. Extremely.

15 Q. Now, when you're on a call to assist a victim of
16 fire, and there's still active fire burning around you,
17 that would be a fluid situation I take it?

18 A. Yes.

19 Q. What's your number one priority when dealing with
20 victims at that point?

21 A. Getting them to safety, to a place where they can
22 be given first aid in a healthier environment.

23 Q. So in a situation like that, you're not going to
24 stop in the middle of an active fire and try and give some
25 sort of first aid, you're going to get them out?

26 A. Correct.

1 Q. Now, on November 8, 2018, were you on duty?

2 A. I was.

3 Q. Were you officially on duty at first?

4 A. No.

5 Q. What were you doing on November 8, 2018?

6 A. I was on vacation. I had my dogs down in Chico.
7 Just outside enjoying the morning.

8 Q. Did you live in Paradise?

9 A. I did.

10 Q. Did you lose your house in the fire?

11 A. I did.

12 Q. So if you were not officially on duty at first on
13 November 8, 2018, how did you end up on duty?

14 A. I received a phone call from my fire fighter who
15 was on duty. It was a normal duty day for me, but I was
16 on vacation. He called me up and, of course, my first two
17 things out of my mouth is, "Why are you calling me? I'm
18 on vacation." And "Why are you calling me? It's really
19 early." But he -- I could heard it in his voice, and he
20 just said, "Look up," and so I looked out and saw the
21 flume above Paradise, and I said, "I'm on my way."

22 Q. So what did you do?

23 A. I found a groomer that was open, and she took my
24 dogs since I'm going to be here at some point to get them,
25 do what you need to do. She gracefully took them. And
26 then I headed up the hill, drove the shoulder the entire

1 way in, obviously from the evacuations coming down, and I
2 got to the station and met up with Paulie, my fire
3 fighter, and then we went to work.

4 Q. What type of vehicle did you go to work in?

5 A. We actually got on one of our squads.

6 Q. What's a squad?

7 A. So a squad is a vehicle that has no water. This
8 one specifically is a F550, I believe, four-door with a
9 build up on the back to carry all of our tools and
10 equipment for rescues both over-the-edge water rescue,
11 anything along those lines.

12 So specialty equipment that doesn't go out very
13 often, but when it does...

14 Q. It's pretty helpful?

15 A. It's pretty helpful.

16 Q. So you weren't on an engine?

17 A. No. At that point, we weren't going to be able
18 to do really any good an engine. We knew with a squad, we
19 would be able to get more places that the engines couldn't
20 go.

21 Q. Okay. So what were you trying to do? And it was
22 just the two of you, correct?

23 A. Yes.

24 Q. What were the two of you trying to do?

25 A. Just rescue people.

26 Q. Okay. You weren't trying to fight fire?

1 A. There was no fighting fire for us. There's
2 nothing we can do at that point, just wanted to get people
3 to safe zones.

4 Q. Were you able to rescue some folks?

5 A. Many.

6 Q. Well, thank you.

7 A. You're welcome.

8 Q. At some point, and was it -- it was an active
9 fire zone?

10 A. Yeah.

11 Q. When you were doing that?

12 A. Yeah.

13 Q. And at some point, were you dispatched to try and
14 locate and assist two burn victims of in area of Edgewood?

15 A. We were.

16 Q. Were you able to make it to Edgewood?

17 A. We did.

18 Q. And were you able to initially locate the injured
19 couple?

20 A. No.

21 Q. Did you encounter anyone in that area who gave
22 you some information about them?

23 A. We did. So going down into Edgewood, engines
24 couldn't get passed just off of Pearson onto Edgewood,
25 everything was blocked by power lines and trees across the
26 roadway, but we were able to make access for the squad by

1 cutting the line and going through people's yards, et
2 cetera.

3 I got all the way down to the bottom of Edgewood,
4 got out of the squad, searched for a while. We were
5 unable to locate anybody, contacted Oroville ECC and asked
6 if they had anything further. They did not. So we told
7 them we were not able to locate, and we were going to work
8 our way back out. And on the way back out, a gentleman on
9 a quad came out of the smoke and stopped us, flagged us
10 down, and told us that he knew where the couple was. That
11 he has taken them on his quad to a field down below South
12 Libby, and so we contacted Oroville and let them know we
13 had a possible location and to get some equipment
14 dispatched down that way.

15 Q. And then what did you do?

16 A. We were immediately dispatched as well, and --
17 well, before we left, we spoke with the gentlemen on the
18 quad and asked if he would ride with us so he can lead us
19 in, but he was more comfortable on his quad and wanted to
20 get back to the couple as soon as possible, so he said he
21 would meet us at the bottom of South Libby and lead us
22 into where they were. So we went ahead and did that,
23 drove around, made it down to South Libby. By the time we
24 got to bottom, there was already a battalion chief and
25 another engine down there awaiting us, and they were
26 awaiting the people on the quads to bring the folks back

1 up.

2 Q. So the -- the two victims weren't present when
3 you first got to the --

4 A. No.

5 Q. -- bottom of South Libby?

6 A. No, they weren't.

7 Q. When they arrived, did you actually have an
8 occasion to see them?

9 A. Yes. Yeah, they arrived on the quads, and we
10 were -- I transported out of there, so my partner and I
11 helped pick them up off the quads and put them into the
12 squad so that we can get them out.

13 Q. Okay. What were their genders?

14 A. Male and female, both elderly.

15 Q. Were they a couple?

16 A. Yes.

17 Q. And at some point, did you learn their last name?

18 A. I did.

19 Q. And do you recall what that is?

20 A. Ernest.

21 Q. Could you describe the condition of Mr. Ernest
22 for us to the best of your recollection?

23 A. He was in real bad shape. Most of his clothes
24 were burned off. Really bad third-degree burns, and
25 having a hard time staying conscious and speaking to us.

26 Q. But he was conscious and speaking with you, at

1 least part of the time?

2 A. He was, yeah.

3 Q. Could you describe the condition of Mrs. Ernest
4 for us to the best of your recollection?

5 A. She was also burned quite badly. Clothes burned
6 off as well. Not quite as bad as Mr. Ernest, but she was
7 not in good shape. Fortunately, she helped us out quite a
8 bit and was able to talk with her husband the entire way
9 to get them to an ambulance to get them out of there. She
10 was a lot of help, but struggling herself.

11 Q. Okay. Did you notice any of the skin sloughing
12 you told us about earlier on either of them?

13 A. Both of them.

14 Q. Just a little bit?

15 A. It was excessive.

16 Q. And you said you -- you were their transport, do
17 you recall where you took them?

18 A. Yeah. We were able to bring them down to around
19 Valley Ranch Road and Clark Road to meet up with a pair of
20 ambulances down there, and then they were going to shuttle
21 them down further to where the air ambulance was.

22 BY MR. NOEL:

23 Q. Briefly, you lost your house in the fire,
24 correct?

25 A. Yes, sir.

26 Q. Can you give us the address?

1 A. 460 Stacy Lane.

2 Q. And that's in Paradise?

3 A. Yes, across the street of Foster.

4 MS. DUPRE-TOKOS: Does anyone have any questions?

5 Okay. You just need an admonition from madam

6 foreperson, and then you'll be all set.

7 THE WITNESS: Okay. Thank you.

8 MR. NOEL: Oh, I do have one more.

9 BY MR. NOEL:

10 Q. Did you guys get the names of the heroes on the

11 quads?

12 A. I -- I don't have his name. I wish I did.

13 MS. DUPRE-TOKOS: Actually -- and I do have a follow

14 up.

15 BY MS. DUPRE-TOKOS:

16 Q. So there was the initial gentleman, who you spoke

17 with up on Edgewood, and then you said that the victims

18 were brought up on quads?

19 A. Yeah. They -- if I remember correctly, there

20 were two of them, and the two of the firefighters for the

21 engine were there and went down to assist with getting

22 them loaded and bringing them back up to us.

23 Q. Okay. Do you know what the other engine was?

24 A. I don't. I can't remember. I'm sorry.

25 Q. That's all right. Thank you.

26 MS. DUPRE-TOKOS: Madam Foreperson?

1 GRAND JURY FOREPERSON: Captain Hollstrom, you are
2 admonished not to discussion or disclose at any time
3 outside of this jury room the questions that have been
4 asked of you or your answers until authorized by this
5 grand jury or the Court.

6 A violation of these instructions on your part
7 may be the basis for a charge against you of contempt of
8 court. This does not preclude you from discussing your
9 legal rights with your own attorney.

10 Captain Hollstrom, what I have just said is a
11 warning not to discuss this case with anyone except the
12 Court, your lawyer, or the district attorney.

13 Do you have any questions?

14 THE WITNESS: I do not.

15 THE COURT: Thank you for your time.

16 THE WITNESS: Thank you.

17 MR. NOEL: All right.

18 MS. DUPRE-TOKOS: Oh, we do need to put one thing on
19 the record and that was when Ms. Carota was testifying, I
20 said that the picture of Vincent Carota was, I think,
21 1257, and I misspoke. It should be Exhibit 972. So we
22 might want to correct your PowerPoints too.

23 GRAND JURY FOREPERSON: Thank you.

24 [Discussions omitted.]

25 [Matter adjourned at 4:05 P.M.]

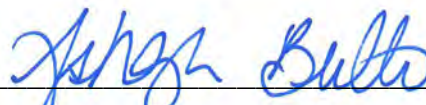
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COURT REPORTER'S CERTIFICATE

THIS IS TO CERTIFY THAT I, ASHLEIGH BUTTON, A
CERTIFIED SHORTHAND REPORTER OF THE STATE OF CALIFORNIA,
WAS PRESENT AT THE TIME AND PLACE THE FOREGOING GRAND JURY
PROCEEDINGS WERE HAD AND TAKEN IN THE WITHIN MATTER; AND
THAT AS SUCH SHORTHAND REPORTER I DID TAKE DOWN IN
SHORTHAND WRITING THE AFOREMENTIONED PROCEEDINGS; AND
AFTERWARDS CAUSED MY SAID SHORTHAND WRITING TO BE
TRANSCRIBED INTO TYPEWRITING; AND THE FOREGOING PAGES,
BEGINNING AT THE TOP OF PAGE 1 TO AND INCLUDING PAGE 57
HEREOF, CONSTITUTE A FULL, TRUE, ACCURATE, AND COMPLETE
RECORD OF THE PROCEEDINGS.

WITNESS MY HAND THIS 17TH DAY OF JUNE, 2022.



ASHLEIGH BUTTON, CSR #14013

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

REDACTED

BCSC-2019-GJ-01

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

FRIDAY, FEBRUARY 21, 2020

VOLUME 40

OROVILLE, BUTTE COUNTY, CALIFORNIA

LISA MCDERMID WELCH, CSR 10928, OFFICIAL COURT REPORTER

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8 OFFICE OF THE ATTORNEY GENERAL:

9 (No appearance)

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1 OROVILLE, BUTTE COUNTY, CALIFORNIA

2 FEBRUARY 21, 2020; 8:25 a.m.

3 (Confidential Special Grand Jury Hearing Proceedings)

4
5 [PROCEEDING OMITTED.]

6
7 [ROLLCALL OMITTED.]

8
9 [DISCUSSION OMITTED.]

10
11 [Witness enters the courtroom.]

12 GRAND JURY FOREPERSON: Mr. Dow, before you have
13 a seat, would you please raise your right hand to be
14 sworn.

15 Mr. Dow, do you solemnly swear that the evidence
16 you shall give in this matter pending before the grand
17 jury shall be the truth, the whole truth, and nothing but
18 the truth so help you God?

19 THE WITNESS: I do.

20 GRAND JURY FOREPERSON: Thank you, have a seat,
21 please.

22 **EXAMINATION**

23 BY MR. NOEL:

24 Q. For the record, Mr. Dow, could you please state
25 your full name spelling your last name.

26 A. Luther Dow, Jr., D-o-w.

1 Q. Morning, Mr. Dow.

2 A. Morning.

3 Q. By whom are you currently employed?

4 A. I'm actually employed by two companies; by
5 Nexant and a company called Energy Experts International.

6 Q. Can I get you to talk into the microphone so
7 everyone can hear.

8 A. Okay.

9 Q. What are those companies?

10 A. They're both engineering and consulting firms.

11 Q. And as such are you presently doing work for
12 PG&E?

13 A. Yes.

14 Q. As a consultant?

15 A. Yes. I'm working as -- for -- I'm working with
16 EEI. EEI has a contract with PG&E, and I'm part of that
17 contract.

18 Q. Okay. As part of that, have you been asked to
19 sign a non-disclosure agreement or anything similar?

20 A. I don't think so. You know, I've signed
21 non-disclosure agreements for various projects so . . .
22 But I don't particularly remember.

23 Q. Anything related to the Camp Fire?

24 A. I have signed documents associated with the Camp
25 Fire, yes.

26 Q. Okay. And are those for your consulting work?

1 A. Yes.

2 Q. Okay. And so let's make sure we get one thing
3 perfectly straight. In your testimony today what we're
4 going to be talking about and what we need to concentrate
5 on and answer is your work with Quanta and then prior to
6 that PG&E and your career and we need to not mention
7 anything or discuss anything that you've done post-Camp
8 Fire as part of your consulting contracts.

9 A. Yes. I understand.

10 Q. Okay. And I know we talked about this last
11 night, and we just need to make sure that it's on the
12 record that you've been instructed. And we made it very
13 clear we're talking about pre-Camp Fire your career with
14 Quanta and your career with PG&E?

15 A. Yes, Sir.

16 Q. Okay. So prior to retiring and becoming a
17 consultant, did you at some point work for PG&E?

18 A. Yes, Sir.

19 Q. Can you walk us through your PG&E career?

20 A. Sure. So I started working for PG&E when I was
21 in college in the summertime. And when I graduated, I
22 got a job with PG&E.

23 Q. Did you give us an approximate date.

24 A. Sure. 1972. So I started with them in 1970
25 doing -- in the summertime doing work, engineering work
26 for two summers and then I got hired with PG&E in 1972.

1 And then --

2 Q. Where did you go to college?

3 A. Sacramento State.

4 Q. And what's your degree?

5 A. I have a Bachelor's in engineering and a MBA.

6 Q. So you have both a degree in engineering and a
7 Master's in Business Administration?

8 A. Yes, Sir.

9 Q. Okay. And are you a licensed engineer?

10 A. Yes, Sir.

11 Q. Electrical engineering?

12 A. Yes, Sir.

13 Q. Are you licensed in any other fields?

14 A. No.

15 Q. Okay. Sorry. Go ahead.

16 A. That's okay.

17 Okay. And so then I started working in '72. I
18 worked in Vacaville. And I went to basically what was
19 called a distribution planner. Pretty basic engineering
20 work for distribution. And then I moved to Eureka,
21 worked in Eureka doing similar tasks. And then I was
22 there for a year and a half or so. And I moved back to
23 Vacaville, and I was a district engineer. So I was
24 responsible for all the distribution engineering of all
25 types in the Vacaville area.

26 And then I went to corporate headquarters in

1 San Francisco and was on the staff -- engineering staff
2 but actually got pulled off into doing a lot of work with
3 PCB. That was the time when PCB was a big issue.

4 Q. If you could just, for the record, briefly
5 explain to us what PCBs are.

6 A. Polychlorinated biphenyls. I'm not sure I can
7 even remember the full name of that.

8 MR. NOEL: Common spelling.

9 BY MR. NOEL:

10 Q. We don't necessarily need to know what PCB
11 stands for, but if you can just remind us, I'm sure --
12 what they were.

13 A. Sure. It was insulating fluid. PCB is the
14 name. It's a commonly used insulator fluid that -- and
15 in some cases were believed to be cancerous. And so
16 there was -- there was a big concern about PCB being
17 spilled. And so for a series of several years the
18 industry went through changing out all of the insulator
19 fluids in transformers and replacing transformers and
20 other things like that.

21 So it was just a -- that's -- I think that issue
22 is behind us now, but that's what it was. And so I
23 was -- I worked on that -- on that task of how we're
24 going to manage and handle and replace all of the PCB
25 fluid.

26 And then I left that and got involved with

1 underground distribution engineering standards equipment.
2 So all that work was being done at the corporate
3 headquarters. And then I had an opportunity to go into
4 the field and get some field experience and went to
5 Oakland for a while and then went to Concord where I
6 managed all engineering and all of the construction and
7 maintenance folks.

8 It was at that time -- it was at that time the
9 company started to do -- to do reorganization work in
10 Concord and one other headquarters. It was a trial area
11 on how they could -- how they could combine management of
12 gas and electric personnel.

13 So that was -- I stayed there for a year and a
14 half or so. And then -- and during that time -- and
15 during that time the transmission -- the transmission and
16 distribution work was all mixed together. So if you're a
17 lineman, you could do distribution work, you could do
18 transmission work.

19 Now, it's true that an area would have
20 transmission people who did -- who were good at
21 transmission work and did transmission work, but there
22 was no separation of work folks' skill sets from a
23 contract perspective. A lineman was a lineman and you
24 could do distribution work or transmission work.

25 And about that time, about '84, '85, mid '80s
26 they decided to try to form local transmission

1 organizations. And they actually formed what they called
2 regional transmission organizations. And they formed six
3 of them and -- because there was six regions, they formed
4 six of those.

5 And so one of those positions in San Francisco,
6 a regional transmission manager -- that person got
7 promoted to another job. And so I got his job. So I
8 left Concord, which was doing basically distribution work
9 and transmission work, and moved to the position in San
10 Francisco doing transmission work.

11 Q. Let me interrupt you right there. So right
12 around '86 when transmission -- electrical transmission
13 and distribution got split, you went to electrical
14 transmission and you were the regional supervisor for San
15 Francisco?

16 A. Yes, Sir.

17 Q. You said that the person you replaced is someone
18 who got promoted; correct?

19 A. Yes, Sir.

20 Q. Do you remember who that person was?

21 A. I believe it was Robert Malahowski.

22 Q. Who was Robert Malahowski?

23 A. Who was he? I didn't understand the question.
24 He was an electrical engineer, and he had done a lot of
25 work in transmission and operations. And that's all I
26 can tell you.

1 Q. So you were one of the original six?

2 A. No. I was probably number seven.

3 Q. Okay.

4 A. Because I think Rob was one of the original six
5 and I was number seven.

6 Q. And then you quickly replaced him?

7 A. Yes.

8 [Exhibit 608 introduced
9 as evidence.]

10 BY MR. NOEL:

11 Q. I'm going to direct your attention here to this
12 Exhibit 608. Do you remember this document? Yes?

13 A. Yes.

14 Q. That's the 1987 Transmission and Distribution
15 Electric Operations Manual. What is it? TD --

16 A. TDEO.

17 Q. Yep. And that lays out the policies and
18 procedures for the troublemen program, the transmission
19 troublemen program in 1987; correct?

20 A. You're calling it the Transmission Troubleman
21 Program. I don't know if those are the right words. Let
22 me say that this laid out how the inspection should be
23 done. I'm not sure -- and I don't remember the date.
24 They could have had transmission troublemen, but that was
25 a classification -- if my memory serves me correctly,
26 that was a classification that was established after the

1 regional organizational reform. And I don't know if it
2 was before or after this bulletin.

3 But certainly this is a bulletin that would be
4 used for it. I just wouldn't know -- I don't know if
5 it's classified as a Transmission Troublemens Program.

6 Q. Okay. Just want to make sure that you remember
7 this. How long were you in charge of -- were the
8 regional supervisor in charge of transmission in San
9 Francisco?

10 A. I'm going to be approximate here. Approximately
11 three years.

12 Q. Okay. Do you remember a guy named (WITNESS
13 #17)?

14 A. Yes.

15 Q. Who was (WITNESS #17)?

16 A. (WITNESS #17) was a specialist, and he worked --
17 a specialist. He worked in Oakland. And so he was in
18 Oakland. He was in the East Bay region. And he was a
19 specialist who -- as I knew him, he was a specialist. He
20 may have been a supervisor at the time. But when I knew
21 him, he was a specialist and basically provided technical
22 guidance to the field crews.

23 And I say that with respect because he's -- he
24 knew what was going on. And so he was a person who would
25 provide them based on technical knowledge, not just
26 necessarily engineering skills.

1 Q. So somewhere in the '80s, the late '80s would
2 you agree that the troubleman position was created?

3 A. Yes.

4 Q. Prior to that, PG&E did not have specific
5 trained individuals assigned to do inspections and
6 patrols of the transmission lines?

7 A. I don't know if I can -- if I can say that they
8 were not trained, but they did have a classification. My
9 memory is that in that particular headquarters there was
10 somebody who did that work. It wasn't like Johnny did it
11 today and Mike did it tomorrow. There was one or two
12 people who did that work. And so I'm assuming they had
13 some skills, but whether there was any training there I'm
14 not familiar.

15 Q. Okay. Now, in those early years, in the late
16 '80s of the troublemen program, do you recall was there
17 training for the newly created troublemen?

18 A. I was not involved with that, but I believe
19 there was. It's my understanding there was training,
20 yes.

21 Q. Okay. For instance, was there scheduled
22 meetings for the troublemen to come together and talk
23 about issues that had been seen and share photographs?

24 A. That's my understanding, yes.

25 Q. All right. Now, sometime in the late '80s do
26 you remember (WITNESS #17) bringing up an issue with wear

1 to C-hooks?

2 A. I can't talk about that. Sorry.

3 [Exhibit 179 introduced
4 as evidence.]

5 BY MR. NOEL:

6 Q. Okay. Well, I was going to show you a
7 photograph Exhibit 179. Do you remember seeing this
8 photograph back in the late '80s?

9 A. No.

10 Q. This being passed around?

11 A. No.

12 Q. Okay. Do you remember discussions about a
13 checklist being developed for a systematic approach to
14 the inspection of transmission lines? Transmission
15 towers?

16 A. I think there has always been -- there's always
17 been some form of a list or checklist about how to
18 inspect towers, yes.

19 Q. Okay. And back in the late '80s there was
20 actually a checklist for the -- the troublemen to -- as
21 they went down and inspected a tower; correct?

22 A. I don't know. It doesn't surprise me that there
23 was. I would be surprised if there wasn't. But if you
24 were to lay three pieces of paper on the table and say
25 "Which one was it," I couldn't point it out.

26 Q. Okay. Well, we talked about this last night.

1 Remember?

2 A. Uh-huh.

3 Q. And at that time you told us that you thought
4 that that checklist was still being used.

5 A. Yes, but -- and if I said that checklist, then I
6 may have misspoken. A checklist.

7 Q. Okay.

8 A. Okay?

9 Q. So after you get promoted somewhere around 1990
10 or after you leave your position in San Francisco, where
11 do you go?

12 A. Oh, as regional electric. At that time they had
13 formed these six regional transmission organizations but
14 even -- and the intent was to focus more on transmission
15 and to provide greater uniformity. But even with that,
16 the six regional organizations still were independent.
17 And I might while we had these --

18 Whoops, you changed it.

19 Q. Which one do you want?

20 A. It doesn't matter. I was just going to point to
21 the guidelines. Even though we had guidelines -- we may
22 have followed these guidelines, but there are other
23 things that may or may not have been guidelines on --

24 Q. Let me interrupt you real quick. So when you
25 are referring to these guidelines, you're talking about
26 Exhibit 608?

1 A. Yes.

2 Q. The 1987 Malahowski policy?

3 A. Yes.

4 Q. Okay.

5 A. And so they were -- these were still a little
6 bit different. And so they were doing things slightly
7 different. And so the company decided they were going to
8 try to look at trying to maybe centralize the
9 transmission a little more. And the first step of doing
10 that was to form -- was to take the responsibility for
11 budgeting and policies of the 230 and 500 because that
12 was the highest voltage or high voltage.

13 And so they formed an organization called "Hydro
14 Transmission and Substation." And that organization had
15 the budgeting responsibilities, policy responsibilities,
16 and auditing responsibilities for the work that was done
17 on the 230/500. It was not -- they did not have the crew
18 responsibilities. The crew responsibilities still
19 remained with the regional managers.

20 And I got that job. I was -- I have always been
21 a transmission and substation manager. And I had a small
22 staff of eight plus some protection engineers. And our
23 job was to try to make sure that work was done on the 500
24 and 230 consistently and was being done correctly. So
25 that's the next step that I had.

26 Q. Why just the 230 and 500?

1 A. I don't know.

2 Q. One fifteens weren't part of that; correct?

3 A. That's correct.

4 Q. You were never given any justification as to why
5 the 115 lines were not included?

6 A. No.

7 Q. And you were basically administrating the budget
8 for, what, capital work on the 230?

9 A. And maintenance work.

10 Q. And maintenance work. Okay.

11 Was there at that point a difference in the
12 maintenance procedures and the inspection procedures
13 between the 115 and the 230 and 500?

14 A. Well, the maintenance procedures in the 230 and
15 500s, as you see in this, are different. So that stayed.
16 That continued. So the 500, the 230, the 115, and the 60
17 have different inspection and maintenance schedules. And
18 that continued. We did not change this bulletin. We
19 just made sure that was followed in that particular
20 study.

21 Q. All right. So how long were you in that
22 position?

23 A. Until about '94. I think '94. Again, I might
24 be off a year or two. And in that timeframe they had a
25 major reorganization of the company.

26 You probably heard that before; right?

1 They had a major reorganization of the company.
2 And they pulled -- as part of that reorganization, they
3 pulled all transmission responsibilities together under
4 one organization. It was called Group Maintenance and
5 Construction, now referred to as GMC. And so all
6 engineering, construction, maintenance of the
7 transmission system and substations were pulled into one
8 organization. And I got that responsibility to manage
9 that.

10 Q. All right. What kinds of people were you
11 managing at that position?

12 A. In that position we had all kinds. We had
13 engineers. We had linemen. We had substation folks. We
14 had production engineers, production technicians. So it
15 was both -- both management and craft personnel.

16 [Exhibit 825 introduced
17 as evidence.]

18 BY MR. NOEL:

19 Q. All right. So we have up here in front Exhibit
20 Number 825 "1995 Overhead Line Inspection."

21 Do you recall this?

22 A. Yes.

23 Q. This was a -- the signatory on this document was
24 somebody by the name of Richard Cashdollar.

25 A. Yes.

26 Q. Did you know Richard Cashdollar?

1 A. Yes.

2 Q. Who was Richard Cashdollar?

3 A. Richard Cashdollar was -- was previously one of
4 the regional ethic managers in Sacramento. And when we
5 consolidated the transmission into one organization, he
6 became the director of maintenance. I think that was his
7 title. Or the manager of maintenance.

8 But he was associated with assuring the
9 maintenance inspection programs for both transmission and
10 substation and protection where there were maintenance
11 practices put together and followed and funded and
12 staffed and all of that.

13 Q. Was Mr. Cashdollar in your chain of command?

14 A. Yes, Sir.

15 Q. Were you Mr. Cashdollar's boss --

16 A. Yes.

17 Q. -- at the time that this was issued in 1995?

18 A. Yes.

19 Q. Do you know why in 1995 PG&E chose to reduce the
20 inspection and patrol cycles for transmission lines?

21 A. The first part of that question -- I'm sorry. I
22 was listening to the last part. I didn't catch the first
23 part.

24 Q. Do you recall why?

25 A. Yes. Well, the purpose of pulling the
26 transmission organization together into one place was to

1 try to develop work practices that could be used crossly
2 that were -- it was an opportunity to become current with
3 the way things should be done because there had been some
4 time since it had been looked at before.

5 So the process -- if I remember the process for
6 this bulletin, Rich had a -- I'm going to call it, for
7 lack of better term, a task force or whatever, but it had
8 a group of individuals who were -- I had never climbed a
9 tower. I never inspected a tower. Rich had never
10 inspected a tower. We had people who had done that work
11 get together and say "What's the best way to do this?"

12 "Rich, this is how we do it."

13 "Is there another way we can do this that would
14 be just as good, better, better for the -- better for the
15 person doing the inspection?"

16 And the group came up with this approach of "We
17 don't have to climb all the time because we can see these
18 things with -- with binoculars and other devices. And we
19 don't have to climb."

20 So that's -- and so they developed these
21 procedures.

22 Q. So one of the differences between the '87
23 Malahowski policy and the '95 Cashdollar is Cashdollar
24 essentially eliminated climbing inspections; right?

25 A. Well, that's one of the things. I mean --

26 Q. Right. And we're going to go through them one

1 at a time. But one of the things was the elimination of
2 routine climbing inspections?

3 A. Yes.

4 Q. In 1987 they were supposed to be -- the
5 troublemen were supposed to be climbing 5 percent of
6 every transmission line every year.

7 A. They were supposed to be climbing. I've -- it's
8 been a long time since I looked at it, but there's
9 5 percent -- I don't know if it's every line or 5 percent
10 of every voltage level. I don't remember.

11 Q. I can tell you it's 5 percent of every line.

12 A. Every line. Fine. Okay.

13 Q. Every year.

14 A. Okay.

15 Q. In 1995 Mr. Cashdollar's memo completely
16 eliminated routine climbing inspections and went to an
17 "as triggered"?

18 A. Yes.

19 Q. Why?

20 A. I can tell you why I think it happened. I was
21 not on that. So you'll have to -- you'll have to take my
22 understanding is that it was done because that was the
23 recommendation of people who have inspected, done this
24 work, and they said "We can do it this way."

25 Q. Okay. By 1985 or -- 1995 -- I'm sorry -- do you
26 recall was there already an awareness of the -- that many

1 PG&E assets were aging?

2 A. I think that's -- I think that's fair, yes.

3 Q. Many -- especially the 115 lines were built in
4 the 1910s and 1920s?

5 A. Yes.

6 Q. Is that correct?

7 A. Yes.

8 Q. So by that time those lines were already 70 to
9 80 years old.

10 A. Okay.

11 Q. So it seems somewhat -- what's the word I was
12 looking for? It doesn't make sense that as you have an
13 aging infrastructure that you're reducing in 1995 the
14 patrols and inspections of that infrastructure.

15 A. I think all of the structures are not equal. A
16 tower that's in the -- in the center of the Sacramento
17 Valley that goes across the ag land is completely
18 different. It's in a different situation than a tower
19 that's in the water way, that's in the bay, that's
20 covered by -- it has -- it's flooded with water or a
21 tower that is adjacent to a chemical plant where the
22 chemicals are coming out.

23 We did not try to say you have to do every tower
24 the same way because the environment is what you need
25 to -- you have to pay attention to.

26 So I think the process -- and I haven't looked

1 at this recently. I think the process was we tried to
2 say how critical the towers were and what was the
3 environmental arena and what was the environment they
4 were in and try to do the maintenance work based on "Hey,
5 we need to pay -- we need to pay more attention to that
6 115kV tower that's in --" I'm going to use the
7 expression "that's in the corrosive area." Like whether
8 it's in the Bay Area is different from the work you need
9 to do for that tower that's in the Sacramento Valley
10 that's going across ag land.

11 So there is no need for every tower to be looked
12 at exactly the same.

13 Q. All right. So by the mid '90s there was already
14 being a distinction drawn between what are known as the
15 Bay Waters towers and the rest of the system?

16 A. Let's see. The answer is yes, at least in our
17 understanding. Whether it was documented, whether the
18 document says "Hey, that's the case" and that document
19 is -- I don't know. But certainly we were experiencing
20 problems with Bay Waters towers that we weren't
21 experiencing elsewhere. So, yes.

22 Q. And you worked down there for a while. Most of
23 the 115 lines that qualified as the Bay Waters towers,
24 can you give us an approximate age of those towers.

25 A. Oh, no.

26 Q. Or a year? Are those pre- or post-World War II

1 systems?

2 A. I don't know.

3 Q. Okay. And the Bay Waters doesn't just apply to
4 the towers that are actually in the bay itself in the
5 water? It also applies basically to everything in the
6 Bay Area?

7 A. Because you can have corrosive air coming in.
8 And so you can describe it being Bay Waters, but
9 certainly you'd have the air with the salt water, salt
10 air coming in to cause corrosion.

11 Q. You have all that fog and the salt air in that
12 fog.

13 A. Right.

14 Q. And I'm sorry I didn't ask you this last night.
15 And this just occurred to me. It's understandable why
16 the Bay Waters towers, why the Bay Area towers with that
17 corrosive environment would be treated so different.

18 Why aren't the other towers up and down the
19 California coast outside the Bay Area treated that way?

20 A. Well, I don't think they're being excluded. I
21 think there would be -- an idea of the Bay Waters was if
22 you were exposed to that type of -- if you were exposed
23 to that type of environment, you would follow those
24 practices.

25 Q. Right. I mean, they call it the Bay Waters
26 towers and they have the Bay Waters towers project. And

1 there's a huge amount of resources that are being
2 dedicated to the Bay Waters towers, but those aren't
3 going to, say, the Sonoma coast, the Mendocino coast, the
4 Humboldt coast, the Del Norte coast, or down to San Luis
5 Obispo, Monterey.

6 A. I'm sorry. I don't know. I believe you're
7 telling me the truth, but there's no reason -- there's no
8 reason they shouldn't be.

9 Q. When you were running this, was that the truth
10 then?

11 A. The intent was -- the intent was to -- if you
12 were in an area of corrosion, you should follow that type
13 of practice whatever their practice was at the time.

14 Q. So obviously there's a huge difference between
15 the corrosive environment of the bay waters and, like you
16 said, the central valley?

17 A. Yes.

18 Q. What about the mountains?

19 A. Yes.

20 Q. Was any special attention being paid to the
21 lines in the mountains? The snow towers?

22 A. Yes. The mountainous towers would be more
23 affected by wind, wind and, if you were in a snow area,
24 then the condition of snow. But primarily the mountain
25 towers are wind issues.

26 Q. Right. And the mountain towers are also

1 generally the oldest in the PG&E inventory; correct?

2 A. Yes, yeah, yeah. They were older.

3 Q. But there was special attention and special
4 resources being devoted to the Bay Waters towers and the
5 corrosion. Was there anything similar for the oldest
6 lines in the system up in the mountains exposed to wind?

7 A. When it comes -- let's see. When it comes to
8 inspection, I'm not sure. I don't think so, but
9 certainly there were special programs -- we had
10 experienced a different type of -- I'm going to use the
11 word failure here. We had this discussion about failure
12 last night. So I'm just going to use the word failure.

13 We had things that didn't work properly that we
14 had to go back and fix. And we did numerous wind studies
15 to determine what those fixes were.

16 So, yes, there were programs to enhance and
17 enforce towers and various mountain areas. Whether or
18 not the Feather River had that or not, I'm not sure. But
19 in the area we call mountainous, there certainly have
20 been a lot of wind studies done and work done to enforce
21 towers because of that.

22 Q. It's amazing how sometimes these conversations
23 go. I had no idea that you had anything to do with the
24 wind studies.

25 A. I guess -- I didn't have anything to do with the
26 wind study, but certainly the -- using the wind study

1 would have been part of that.

2 Q. Okay. And can you educate us very quickly
3 on what you mean by the wind studies.

4 A. Well, I'm trying to. So there were several wind
5 studies done to determine the velocity and what the
6 stresses were on towers that PG&E did. And they're
7 generally pretty site specific. And they would do those
8 studies and use those studies to look at whether they
9 need to modify the towers or not.

10 Q. Were those studies done by people working for
11 you?

12 A. No, no.

13 Q. Or commissioned by?

14 A. Probably commissioned by but they didn't work
15 for me. They were people from our research group that
16 would do the work.

17 Q. Okay. And how did you use those wind studies in
18 your group, in your position?

19 A. Well, those wind studies would be used to
20 determine if a tower needed to be reinforced. For
21 example, are the -- do we need to have a different set of
22 guides and do they need to beef up arms? That sort of
23 stuff. So it's reinforcement of the towers.

24 Q. Why was wind of such concern at that point?

25 A. Well, PG&E had experienced some -- some tower
26 problems because of wind. And so they wanted --

1 before -- they wanted to go back. Before you go back,
2 you do need to understand when you go backwards to the
3 same type of tower, you need to do something different.
4 So the studies were done to do something different.

5 Q. Okay. All right. We're back onto the '95. We
6 were talking about the elimination of climbing
7 inspections and also the reduction of detailed ground
8 inspections from every year to every other year.

9 Do you know why that occurred?

10 A. Again, it's based on what that team said they
11 thought was appropriate.

12 Q. And then the other major change here was the
13 reduction of air patrols from twice a year to once a
14 year. Again, can you educate us on why that occurred.

15 A. The same issue.

16 Q. The word I was looking for earlier was
17 counterintuitive. It seems counterintuitive that you've
18 got an aging infrastructure and now you're reducing the
19 resources to inspect that very infrastructure for
20 problems.

21 Does that make sense to you?

22 A. Yeah. I understand your question. I mean, I
23 understand your statement.

24 Q. Right. And do you have a response? Can you
25 explain why that wouldn't be right.

26 A. I guess we were counting -- we were counting on

1 people who do the work saying "This is what we need to do
2 to keep the towers inspected properly."

3 Q. And do you -- and you've mentioned several times
4 your team -- Cashdollar's team that was doing this.

5 Do you remember any of the persons who were
6 appointed to that team?

7 A. No.

8 Q. Sorry.

9 Now, we also talked about in the late '80s when
10 you were running the T-line team in San Francisco, the
11 region in San Francisco there being a checklist for the
12 inspectors to use to do a systemic check of every tower.

13 By 1995 was that checklist still in use?

14 A. I don't know.

15 Q. Did you ever see that checklist or hear about
16 that checklist again?

17 A. Again, I can't put the times to when -- it was
18 my understanding there was a checklist. If it went away,
19 I'm not familiar with when that was.

20 Q. Okay. All right. Now, let's move on from '95.
21 And we'll get to this in a second, sedgeway between
22 exhibits here.

23 And go through your career from 1995 until 2007.

24 A. Sure. So when -- excuse me. I left PG&E in
25 1997 and went to work for an engineering firm in Boston
26 and then we returned to California in 2000 and started

1 work for EPRI, which is Electric Power Research
2 Institute, in Palo Alto where I was the director of all
3 T&D research for the Electric Department Research
4 Institute.

5 And in 2005 I went back to PG&E as the -- as the
6 director of San Francisco reliability. At that
7 particular time, San Francisco had had -- had had a major
8 substation fire, major outage, and they wanted someone to
9 take a look at what could be done there. And so I was
10 brought back to look at that. And I looked at
11 substations, underground assets, both transmission and
12 distribution and both assets.

13 And so I stayed there in that position until the
14 start of the reorganization. They had the reorganization
15 and then I moved on to becoming the Electric Asset
16 Strategy director. The responsibility of that position
17 was I had transmission planning responsibilities,
18 distribution planning responsibilities, and I managed the
19 entire electric budget for PG&E non-generation.

20 So I was responsible to make sure that the
21 budget was operating, expended, used, and that it was
22 being used and that it was being used properly and that
23 the projects that were being asked to be done --

24 Large projects came through my -- my office.
25 Not to review them technically, that it's the right thing
26 to do, but more or less is it in the budget and is this

1 the type of work in the budget that is supposed to be
2 done? So that's where -- that's -- and then I retired in
3 2008.

4 Q. All right. It's often been said that in PG&E
5 your job is like the weather. If you don't like it, just
6 wait a couple hours and a re-org will come along and it
7 will change.

8 Has that been your experience?

9 A. There's -- there was a lot of reorganization
10 after '84. When I started in '72 to '84, the
11 structure -- people were being moved around. They
12 retired, they got promoted, or whatever but the structure
13 was pretty much the same.

14 And then starting in '84 the company started to
15 reorganize. They did things with the gas appropriation.
16 They did things with transmission. So if you say there
17 were a lot of reorganization, pretty each from the last
18 half of my career.

19 Q. All right. So you said that in '97 you left
20 PG&E and went to work for an engineering firm in Boston?

21 A. Yes, Sir.

22 Q. Do you remember which firm?

23 A. Doble Engineering.

24 Q. What type of engineering were you doing for
25 them?

26 A. They were an engineering manufacturing firm, and

1 Doble manufactured relay test equipment and breaker test
2 equipment. And I went there because they were starting
3 to work on online diagnostic substation equipment.
4 Basically how can we determine that this piece of
5 equipment is being operated properly online without
6 having to do testing?

7 So basically adding sensors and doing all that.
8 So I was very interested in that. So I went there to
9 help do that. And they weren't as successful as I would
10 have liked so we came back.

11 Q. Are they actually -- were they actually based in
12 Boston or --

13 A. Watertown.

14 Q. Okay. My partner here is from Boston.

15 A. I'm sorry. Yes, Watertown.

16 Q. All right. So somewhere around 2006 you become
17 the director of Electric Asset Strategy?

18 A. Yes.

19 Q. And you said that you were in charge of the
20 budget for all electrical other than generation?

21 A. Yes. I managed it. I wasn't in charge of it.

22 Q. Okay. Thank you.

23 What does it mean to manage the budget?

24 A. So I didn't allocate it. The budget process is
25 done normally in bottom-ups. People say "I need this
26 much money." And money is allocated, justifications

1 made, and then you're going to put an electric budget in
2 and the electric budget is compared to the gas budget.

3 And so the corporation develops a budget and
4 then the budget -- and they said "Okay. We want this
5 much, but we only have this much."

6 And so they have allocated the budget to each
7 one of the organizations depending upon what they would
8 ask for and what the corporate manager, corporate
9 officers thought would need to be done. And so then it's
10 allocated out and then it's given to organizations.

11 Every headquarters has a budget, and my job was
12 to make sure that these various organizations did not
13 overspend their budget. Well, first of all, make sure
14 they spend it because you didn't -- if the money -- if
15 they had money, it was there for a reason. They had to
16 spend it.

17 So one was to make sure it was being spent, make
18 sure it was being spent as they said they were going to
19 spend it, and to make sure that they didn't overextend
20 the budget.

21 That's sort of the management coordination
22 budget. We didn't say "Yes, you can" or -- "Yes, you can
23 or cannot have a new truck." That's not -- that was not
24 my job. But if they needed a new truck, there should
25 have been money in the budget. That's basically what I
26 was doing there.

1 Q. All right. Are we talking capital budget,
2 expense budget, or both?

3 A. Both.

4 Q. Okay. Both. And you said that you also had
5 some oversight on major projects.

6 A. Yes.

7 Q. So can you explain that to us.

8 A. Just referencing this?

9 Q. We'll get to this in a second but just in
10 general.

11 A. So with major projects, large projects were
12 coming up for approval. Often they would come through my
13 organization to make sure that, in fact, that project was
14 in the budget and that that amount was correct.

15 So if you had put in the budget -- if I had put
16 in the budget "I need \$1.5 million to build a
17 substation," I submitted the job for approval. It should
18 be around 1.5 million. If I come in with a project
19 that's 7.8 million, that's going to raise a bunch of
20 questions.

21 So I was the first stop at looking at it from a
22 financial perspective. So that's the oversight I had was
23 oversight from assuring it was within the corporate
24 budget level.

25 Q. And you said you weren't reviewing projects
26 technically. What does that mean?

1 A. Oh, "Is that correct? Oh, you said you wanted a
2 10 megawatt transformer, but you didn't justify it.
3 You've got only two megawatts with those."

4 That was not my responsibility to do those
5 technical assessments. It was -- that was someone else's
6 job to do that.

7 Q. All right. Were you familiar in your capacity
8 as the Electric Asset Strategy person managing the budget
9 with the Deteriorated Transmission Equipment Replacement
10 Program of 2007?

11 A. No.

12 Q. You had no idea what that program was?

13 A. Well, I mean, I heard the name. I know what it
14 is. I mean, I know what it is. But did I know that
15 there was a program there that said that? And I did not
16 know that. I'm not surprised that there is, but it's not
17 something I tracked.

18 Q. Okay. So you have no idea how much money was
19 put into that program or if there was actually a program
20 itself; correct?

21 A. No, that's correct.

22 [Exhibit 838 introduced
23 as evidence.]

24 BY MR. NOEL:

25 Q. All right. We have up on the board in front of
26 you Exhibit 838. Do you recognize Exhibit 838?

1 A. Yes.

2 Q. Can you tell us what 838 is.

3 A. It's an Advance -- so it's an Advance work order
4 or Advance GM. When large projects are being prepared,
5 oftentimes -- or they're being prepared, there's a lot of
6 engineering work that needs to be done. And that
7 engineering work needs to be captured and charged to the
8 project.

9 And so since the project is not approved yet,
10 the process is to develop an Advance GM or Advance Work
11 or Advance GM to capture those charges. And so someone
12 comes in and says "We have a plan to do a given project.
13 We expect this project to be sent for approval. We
14 already sent it for approval. In the meantime, we need a
15 certain amount of money to be able to do engineering
16 work, environment --" as we see in this case "environment
17 studies, land work." Because you can't get the job
18 approved unless you make sure you have the right-of-way,
19 be sure you can get the environmental list correct.

20 So we put together these Advance GMs. And when
21 the GM gets approved, the charges for this GM roll over
22 into the job and then it's approved. If the job is not
23 approved, then these charges then roll into expense, into
24 a non-capital budget.

25 Q. Really? Okay.

26 So 838 is a project. Do you remember this

1 project on the Caribou-Palermo line?

2 A. Generally.

3 Q. Okay. But this was a project -- and this is
4 quoting from it. "This project is part of PG&E's
5 Deteriorated Transmission Equipment Replacement Program."

6 But you don't recall any specific program with
7 that name?

8 A. No. I just don't.

9 Q. Okay. But by this time 2007 was there an
10 awareness at your level within PG&E that there was a
11 problem with aging infrastructure?

12 A. There was an awareness that there was an aging
13 infrastructure, yes.

14 Q. Okay. So this is the copy of the AA that you
15 approved for \$200,000?

16 A. Okay.

17 Q. Originally the request was for \$800,000. Do you
18 recall why that request was chopped?

19 A. The answer is no, I do not recall. But I could
20 give you a reasonable explanation about it.

21 Q. No. If you don't recall -- and we talked about
22 this.

23 A. Yeah. Okay. It would not have been -- okay.
24 That's fine.

25 Q. Right. Now, we talked about earlier that you
26 weren't making technical evaluations of the projects when

1 you were reviewing these Advance Authorizations. So that
2 had nothing to do with why you chopped the budget from
3 \$800,000 to 200,000; correct?

4 A. That's correct.

5 Q. And one of the things that is interesting as
6 you're talking about the capital versus expense
7 account --

8 And you have an MBA; correct? And you were
9 managing the budget; correct?

10 A. Yes.

11 Q. All right. And this is just to get your opinion
12 of somebody who has done this. Eventually, this
13 project -- this Advance Authorization ended up costing
14 almost \$800,000 and then the project was cancelled.

15 A. Okay. I don't know that.

16 Q. It wasn't approved. I know. I know you don't.
17 But after the project was cancelled, all of the expenses
18 on the project were capitalized. Is that --

19 A. I don't know.

20 Q. I mean, you said earlier that in your experience
21 as this -- as a director and with the budget and
22 everything, that if these things went through, they'd be
23 rolled into -- if the project got approved, they'd be
24 rolled into the overall budget. If they didn't, what
25 work had been done would just be charged off against the
26 expense budget; correct?

1 A. What I don't know is there may be some result of
2 this that was used and useful. And so if there was some
3 result of this work that is useful, then it would be
4 capitalized. I don't know where they went and so . . .

5 Q. Well, and I'm not going to pull them up here.
6 But we have some e-mails after the project gets cut
7 basically saying "Okay. Go out and do something useful.
8 Change out the insulators so that we can capitalize all
9 this money."

10 A. Oh, I don't know.

11 Q. In your experience is that proper procedure? Is
12 that proper budgeting?

13 A. I'm surprised they did that.

14 Q. Did you know someone named Manho Yeung?

15 A. Yes.

16 Q. Who was Manho Yeung?

17 A. Manho Yeung has worked for me a couple of times.
18 And when I was the -- when I was there in '97, he was the
19 director of engineering for me.

20 Q. Okay. And how about in 2007?

21 A. I don't know where he was in 2007 to be honest
22 with you.

23 Q. You retired in 2008?

24 A. Yes, Sir.

25 Q. Why did you retire in 2008?

26 A. I got reorganized out.

1 MR. NOEL: And, Madam Foreperson, it's a few
2 minutes after 10:00. Before we get into his
3 post-retirement career, this may be a good time to take a
4 break.

5 GRAND JURY FOREPERSON: Okay. Take a 15-minute
6 break, but I need to read you an admonishment prior to
7 doing that.

8 THE WITNESS: Yes, Ma'am.

9 GRAND JURY FOREPERSON: Okay. Mr. Dow, you are
10 admonished not to discuss or disclose at any time outside
11 of this jury room the questions that have been asked of
12 you or your answers until authorized by this grand jury
13 or the Court. A violation of these instructions on your
14 part may be the basis for a charge against you of
15 contempt of court. This does not preclude you from
16 discussing your legal rights with your own attorney.

17 Mr. Dow, what I have just said is a warning not
18 to discuss this case with anyone except the Court, your
19 lawyer, or the district attorney.

20 Do you have any questions?

21 THE WITNESS: No, Ma'am.

22 GRAND JURY FOREPERSON: Thank you.

23 [Recess taken from
24 10:04 until 10:50 a.m.]

25
26 [PROCEEDING OMITTED.]

1 GRAND JURY FOREPERSON: Okay. All members of
2 the grand jury have returned from break, and we're ready
3 to proceed.

4 MR. NOEL: Ask Mr. Dow to re-join us.

5 GRAND JURY FOREPERSON: Mr. Dow, I'd like to
6 remind you that you are still under oath.

7 THE WITNESS: Yes, Ma'am.

8 GRAND JURY FOREPERSON: Okay. Thank you.

9 **EXAMINATION CONTINUED**

10 BY MR. NOEL:

11 Q. All right. Before we move on here really
12 quickly just to make this clear, in your experience is it
13 common for expenses for projects that are just in the
14 planning stage are capitalized?

15 A. Let me clarify what you said. Is it the
16 projects that are not approved?

17 Q. Right.

18 A. No.

19 Q. So in this case an AA, an Advance Authorization,
20 is authorized to allow for the preliminary work being
21 done, the engineering and all of that, the study to
22 determine if this project is feasible. And then the
23 project gets cancelled and then for those expenses that
24 were spent up to that point to be capitalized?

25 A. No, they are not capitalized.

26 Q. Or for someone to do a much smaller project in

1 order to be able to capitalize everything?

2 A. Basically, you know, this engineering may --
3 this preliminary work -- maybe the project won't be done,
4 but maybe a smaller project could be done. And this
5 engineering work justified that and then it would be
6 capitalized. But normally, if a project like this is
7 cancelled, then those charges are expensed.

8 Q. So let me give you a hypothetical. And I know
9 you had left the company and everything. So you
10 authorize an AA for \$200,000 to do advanced engineering
11 PM and estimating work, land review, environmental
12 review, and all of that. A project manager's appointed
13 to assess the project and do all of the pre-engineering.
14 And for various reasons that project manager overruns
15 that \$200,000 budget that had been authorized and then
16 ultimately the project gets killed. It gets declined.
17 "We're not going to pursue this project."

18 And then an issue goes out, an order goes out to
19 basically find a small project to do under this number.
20 Let's say, for instance, hypothetically replace some
21 insulators. So the original project was to replace ten
22 towers. That went over budget hypothetically, and
23 hypothetically that project gets killed. And then
24 hypothetically somebody comes back and says "Okay. Go
25 out and replace the insulators on those towers so that we
26 can capitalize the money that you've already spent."

1 In your experience, is that common?

2 A. No.

3 Q. In your experience, in your opinion is that
4 honest and ethical?

5 A. The -- if in fact the insulators -- if in fact
6 the work that they did really did need to be done, you
7 could make the case that, you know, that is not the
8 purpose of the job.

9 So I guess I'd have to know what the condition
10 is, whether it's honest or ethnical. It's not something
11 I would normally --

12 Q. Let's assume that at least the person who was
13 ordered to do that felt and stated for the hypothetical
14 that the insulators did not need to be replaced and that
15 the sole reason that the insulators were being replaced
16 was to capitalize the money that had already been spent.

17 A. With that knowledge I would think that is not
18 appropriate.

19 Q. All right. So 2008 another re-org. And this
20 time you retired?

21 A. Yes.

22 Q. And how long did you stay retired?

23 A. Not long. A few days maybe.

24 Q. All right. And did you get another job?

25 A. Yes.

26 Q. With whom?

1 A. Quanta Technology.

2 Q. Can you explain for us briefly what Quanta
3 Technology is.

4 A. Quanta Technology is a consulting firm,
5 consulting firm that normally works primarily for
6 utilities. And they have -- they consult at basically
7 the full breath of the utility services, production,
8 transmission, distribution, sub-generation. All
9 technicals. No environmental, no health but just
10 technical electrical systems.

11 Q. Is Quanta Technology -- and forgive my lack of
12 understanding of the corporate world. But how is Quanta
13 Technology associated or affiliated with other Quanta
14 companies?

15 A. It's just that they are owned by the other --
16 they are a Quanta Company. So they are -- Quanta has
17 large primarily construction companies. They have PAR
18 Electric and they have several construction companies.
19 And they have a -- they have a communication consulting
20 company. And Quanta Technologies is probably the
21 smallest of their Quanta companies.

22 Q. Right. And does Quanta -- is one of the
23 sub-companies of Quanta an actual electrical utility?

24 A. They keep dying. There wasn't when I was there.
25 Not that I'm aware of.

26 Q. All right. And then construction companies.

1 Would that include PAR Electric?

2 A. Yes.

3 Q. That's all part of the Quanta --

4 A. Yes.

5 Q. -- kingdom?

6 A. Family of companies.

7 Q. Family of companies. That's a very good word
8 for it.

9 All right. So what is Quanta Technologies?

10 A. It's a consulting firm that -- I think I just
11 described it. A consulting firm that consults primarily
12 for electric utilities.

13 Q. What was your job with Quanta Technologies?

14 A. So Quanta Technologies is headquartered in
15 Raleigh. And they did a lot of work on the west coast,
16 but they had no facilities on the west coast. They had
17 nobody on the west coast. So I was hired to develop a
18 west coast office, which I did.

19 We developed an office in Oakland and to staff
20 that office so that there were -- they would have people
21 on the west coast. They were avoiding the time zone
22 issue and travel issues.

23 And so my first charge was to develop the office
24 on the west coast. And then I became the manager of
25 their transmission -- I mean, excuse me, of their
26 distribution business. And so I had the -- I managed all

1 the transmission -- I mean, all the distribution
2 consulting work.

3 And I was also the account rep for PG&E and
4 probably other utilities on the west coast but primarily
5 PG&E.

6 Q. All right. When you say Raleigh, are you
7 talking about Raleigh, North Carolina?

8 A. Yes, Sir.

9 Q. All right. So I'm specifically boring in on
10 your duties as the account rep to PG&E. If you could
11 explain to us what that position entailed.

12 A. Well, I was basically the contact. So if there
13 was a contact for PG&E if they wanted any work to be done
14 by Quanta or had a project that they wanted Quanta to bid
15 on. So basically I was just the local person they
16 contacted.

17 And then I would interface with the Raleigh
18 staff because that's where the staff was. And I would
19 help them maybe attend a meeting. For them rather than
20 have -- so they could have a conference call. And rather
21 then them come out here, I could be -- I could go to the
22 PG&E office and be the technical person that could be on
23 the call and Raleigh not have to come out.

24 So it was basically interfacing between the
25 Quanta Company itself and the technical staff that they
26 were going to work with at PG&E.

1 Q. Did -- after you were settled in Quanta as the
2 PG&E rep, was there a project initiated to have Quanta
3 review, critique, and report on certain PG&E processes?

4 A. That's a lot of questions. The answer to that
5 is yes.

6 Q. Okay. Can you explain to us exactly what this
7 project entailed.

8 A. Well, you said processes. So there may be -- so
9 you want to talk about this project here (indicating)?

10 Q. Yes.

11 A. Okay.

12 Q. And you're pointing at the exhibit in front of
13 you. There's a stack of exhibits starting with 13 --
14 1334 that's in front of you.

15 A. Okay. In this -- I can't remember exactly, you
16 know, when was the first time, what caused this
17 particular project to get started. But the general
18 process is either in discussion or they have -- that they
19 have an idea that they want to do some work, but they --
20 they generated this idea of taking a look at what --
21 trying to understand the lifecycle of transmission line
22 components. How long should we -- how long do we think
23 these components should last?

24 And they wanted -- they wanted a firm, which
25 Quanta was the selected firm, to look at the -- not doing
26 an assessment of the condition in the field but to take a

1 look at the age of the components. What are the
2 components? What are the age of the components? What's
3 the -- what's the -- based on knowledge, either research
4 or their own personal knowledge? What can be -- how long
5 can these devices be expected to last?

6 And we give them an overall review of components
7 and the lifecycle of the components and whether they're
8 near the end or they're in the middle but just sort of a
9 general description of what they thought the -- where the
10 various components were in the lifecycle.

11 Q. Was there a name given to this project?

12 A. Well, I called it the lifecycle project, but
13 there may be another name.

14 Q. Who were your counterparts at PG&E that
15 initiated this project?

16 A. My counterparts -- well, I wasn't with PG&E. So
17 you're talking about --

18 Q. Right. You were at Quanta at this part on the
19 other side, but the PG&E people who initiated this
20 project with you.

21 A. Raymond Thiery and Richard Stockand.

22 Q. Who were Raymond Thiery and Richard Stockand?

23 A. Okay. So they were involved with transmission
24 asset management. And so they were responsible for the
25 asset management of the transmission lines.

26 Q. Were Thiery and Stockand people that you knew

1 from your time at PG&E?

2 A. Only knew of. I knew them but didn't know --
3 yes, I knew them but not in -- I never worked with them.

4 Q. Right. You said they were with Transmission
5 Asset Management.

6 A. Yes.

7 Q. Was there a Transmission Asset Management
8 Division when you were in charge of the director of
9 Electrical Asset Strategy?

10 A. No. The person closest to that would be Richard
11 Cashdollar who would be closest. And we did not have an
12 asset management group at that time.

13 Q. So is the Asset Management -- the Transmission
14 Asset Management Group, was that formed as part of the
15 reorganization that caused you to retire?

16 A. It was formed after I left.

17 Q. But very quickly after you left. Now you have
18 the Transmission Asset Management Group coming to you and
19 wanting --

20 A. Excuse me. After I left the first time. It was
21 probably in place when I came back. So when I left. And
22 I'm referencing '97.

23 Q. Okay. And I'm talking about when you were the
24 electrical asset strategist, the director of Electrical
25 Asset Strategy, was there a Transmission Asset Management
26 Group?

1 A. Yes, there was.

2 Q. Oh, okay.

3 A. Yes.

4 Q. Sorry.

5 A. About the time which I was leaving there.

6 Q. All right. But you didn't know these two
7 Stockand and Thiery?

8 A. No.

9 Q. Did either or both indicate to you why they felt
10 it was important to do this asset lifecycle study?

11 A. Well, so their background was not electric.
12 Their background was gas. And they were brought over for
13 whatever reason, for training purposes, acknowledge,
14 expansion, whatever. And my sense is that they thought
15 the gas department had a new understanding of the assets
16 and the age of the assets and the life, how those assets
17 changed. And they did not see that in the transmission
18 whatever management it was.

19 And so they thought -- and rightfully so in my
20 opinion -- that they should do an assessment. What are
21 the various components we have? How long do they think
22 these components could live and/or last? And then a
23 sense of where PG&E was in that circle. And so I think
24 they just were -- they were just trying to do good. I
25 think they were trying to do some good asset management
26 work.

1 Q. Okay. All right. And at some point in 2009
2 Quanta took on this project for PG&E?

3 A. Yes.

4 Q. And ultimately, were there reports written by
5 Quanta personnel that were submitted to PG&E?

6 A. Yes.

7 Q. Now, did you have anything to do with the actual
8 research and reporting?

9 A. No.

10 [Exhibit 827 introduced
11 as evidence.]

12 BY MR. NOEL:

13 Q. All right. So I just want to show you the
14 reports themselves. We're not going to go through the
15 details of them. But we have on the board 827, which
16 references the Quanta Structures Report from May of 2010.

17 Do you recognize that report?

18 A. Yes.

19 Q. And that is one of the reports that Quanta
20 produced as part of the lifecycle -- the asset lifecycle
21 project?

22 A. Yes.

23 [Exhibit 1333 introduced
24 as evidence.]

25 BY MR. NOEL:

26 Q. And then there is Exhibit 1333 in front of you

1 which is known as the Transmission Line Component
2 Management Report of 2010. Do you recognize that report?

3 A. Yes.

4 Q. Is that also one of the reports that Quanta did
5 for PG&E as part of the lifecycle -- the asset lifecycle
6 project?

7 A. Yes.

8 [Exhibit 1334 introduced
9 as evidence.]

10 BY MR. NOEL:

11 Q. And 1334, the conductors and fittings report of
12 2010. Do you recognize that report?

13 A. Yes.

14 Q. Is this report number 1334 also a report that
15 was done by Quanta for PG&E as part of the Asset
16 Lifecycle Project?

17 A. Yes.

18 [Exhibit 1335 introduced
19 as evidence.]

20 BY MR. NOEL:

21 Q. 1335, the insulator report of 2010. Do you
22 recognize this?

23 A. Yes.

24 Q. And is that also -- Number 1335 also a report
25 produced by Quanta for PG&E as part of the asset
26 lifecycle project?

1 A. Yes.

2 [Exhibit 1336 introduced
3 as evidence.]

4 BY MR. NOEL:

5 Q. 1336, the Switches Report of 2010. Do you
6 recognize 1326?

7 A. Yes.

8 Q. Is 1336 -- was 1336 also produced by Quanta for
9 PG&E as part of the asset lifecycle project?

10 A. Yes.

11 [Exhibit 1337 introduced
12 as evidence.]

13 BY MR. NOEL:

14 Q. 1337. Do you recognize 1337, the Underground
15 Transmission Report of 2010?

16 A. Yes.

17 Q. And was 1337 also produced by Quanta for PG&E as
18 part of the asset lifecycle project?

19 A. Yes.

20 [Exhibit 1338 introduced
21 as evidence.]

22 BY MR. NOEL:

23 Q. 1338, the Minor Components: Aviation Markers
24 Boardwalks and Lighting -- lighting, not lightening --
25 Lighting of May 2010. Do you recognize 1338?

26 A. Yes.

1 Q. And was 1338 also produced by Quanta for PG&E as
2 part of the lifecycle -- the asset lifecycle project?

3 A. Yes.

4 Q. All right. Do you have any recollection of how
5 much money PG&E paid Quanta for these researching
6 reports?

7 A. No.

8 [Exhibit 1339 introduced
9 as evidence.]

10 BY MR. NOEL:

11 Q. All right. Next, we have 1339 which is -- you
12 also have the -- it's in the stack here, the original
13 print version. It's very difficult to read all of this
14 stuff. But this appears to me to be an e-mail.

15 Do you recognize 1339?

16 A. Yes.

17 Q. What is 1339?

18 A. So it looks like a conference call. This is
19 transmission line maintenance practices. So I think it's
20 following this that they wanted to take a look at the
21 maintenance practices of utilities and were asking us if
22 we could do that.

23 Q. Okay. So let's back up a little bit. What --
24 first, this appears to be an e-mail regarding setting up
25 a meeting; correct?

26 A. Yes.

1 Q. And the organizer of the meeting is who?

2 A. Me.

3 Q. All right. And then the required attendees, who
4 were the required attendees?

5 A. These are all PG&E folks. These are all PG&E
6 people.

7 Q. PG&E and Quanta also?

8 A. I don't see any Quanta folks on here. I think
9 this was sort of a -- you know, sort of the beginning
10 piece. And so it would be reasonable that I would just
11 go try to understand what they're trying to cover, find
12 out what they need, and get the right people involved
13 from our company.

14 This is what that appears to be. All these
15 people here are all PG&E folks.

16 [Exhibit 1340 introduced
17 as evidence.]

18 BY MR. NOEL:

19 Q. Okay. And then 1340. Take a look at that.
20 Tell me if you recognize that.

21 A. Well, I don't recognize it exactly, but I see
22 it. So this -- it looks like the same -- this looks like
23 the same meeting. Is it not? No.

24 This meeting -- let's see. I guess I -- I
25 understand the e-mails, but I can't put them in context
26 with one over the other. But basically it looks like

1 this 1340 I'm inviting Carl Watkins and Mike Marshal who
2 are Quanta folks to attend the meeting.

3 Q. All right. And based upon the e-mails, what was
4 the subject of the meeting?

5 A. Transmission line inspection practices.

6 Q. All right. So these are occurring in 2012?

7 A. Yes.

8 Q. The asset lifecycle project reports have already
9 been submitted in 2010; correct?

10 A. Yes.

11 Q. So is this another project --

12 A. Yes.

13 Q. -- between Quanta and PG&E?

14 A. Yes, Sir.

15 Q. And was PG&E again asking Quanta to review,
16 critique, and report on the PG&E process or activity?

17 A. Yes.

18 Q. All right. And what this time?

19 A. I'm sorry?

20 Q. What this time? What was PG&E asking you to do
21 this time?

22 A. Oh, based on this e-mail here they wanted us
23 to -- they wanted to review our transmission line
24 practices and wanted to identify best practices,
25 patrolling, inspection. And so this is basically a
26 benchmarking exercise.

1 Q. What is a benchmarking exercise?

2 A. A benchmarking exercise is basically taking a
3 question or a process and comparing that with how others
4 in the industry do that particular practice. And
5 benchmarking can be as simple as one question. How do
6 you do a task? Or it could be how do you do a whole
7 process?

8 And so this is a previous process because
9 they're looking at how the various utilities do their
10 maintenance and patrolling practices. And how do they do
11 it and then how does PG&E compare to how they do that?

12 [Exhibit 830 introduced
13 as evidence.]

14 BY MR. NOEL:

15 Q. All right. And next up we have Exhibit 830. Do
16 you recognize Exhibit 830.

17 A. Yes.

18 Q. And this is a Quanta Technology Transmission
19 Line Inspection Procedures final report June 14, 2012?

20 A. Yes.

21 Q. Is this the report that was produced by Quanta
22 for PG&E based upon the e-mails we have just discussed?

23 A. I believe so, yes.

24 Q. All right. Did you ever do any follow-up with
25 PG&E in regards to how any of the information was used by
26 PG&E from any of the reports in 2010 or 2012?

1 A. No.

2 Q. And again, do you know how much or can you
3 recall how much money PG&E spent on this report 830?

4 A. No, Sir.

5 [Exhibit 1341 introduced
6 as evidence.]

7 BY MR. NOEL:

8 Q. And finally, I didn't put a number on this.
9 This should be -- you should have an e-mail in front of
10 you marked as Exhibit 1341.

11 A. Okay.

12 Q. Have you had a chance to look at 1341?

13 A. Yes.

14 Q. Do you recognize 1341?

15 A. No, but I have seen it.

16 Q. You have seen it?

17 A. Yeah. There's nothing mysterious about it.

18 Q. It's an e-mail conversation between you and some
19 other people?

20 A. Yeah.

21 Q. And do you know who those other people are? Can
22 you identify them for us and tell us who they are.

23 A. We're talking about -- so Mary at that time was
24 in -- she was in -- I think she was -- I don't know where
25 she was. She was in asset management side. She bounced
26 around in various parts of the company or organization,

1 but I think she was asset management side. And she was
2 trying to get a copy of the -- she had a hard copy, but
3 they didn't have an electronic version of this lifecycle
4 report.

5 Q. All right. So let's back up a little bit. This
6 e-mail conversation is occurring in October of '13;
7 correct?

8 A. Yes.

9 Q. And the person you're referring to "Mary," that
10 would be Mary Hvistendahl.

11 MR. NOEL: Do you have that name?

12 THE COURT REPORTER: No.

13 MR. NOEL: H-v-i-s-t-e-n-d-a-h-l.

14 BY MR. NOEL:

15 Q. And to your knowledge, who was Mary Hvistendahl?

16 A. Well, I don't know where she was at the time,
17 but I thought she was in asset management. She may have
18 been some other place.

19 Q. Okay. And Ms. Hvistendahl contacts you wanting
20 soft copies of the lifecycle -- the asset lifecycle
21 reports; is that correct?

22 A. That is my understanding here. That's what I'm
23 reading here.

24 Q. The asset lifecycle reports, those are those
25 2010 reports?

26 A. Yes.

1 Q. All right. And did you eventually send those to
2 Ms. Hvistendahl?

3 A. It says I did, so I guess I did.

4 Q. All right. And did she -- you also in your
5 response to her you identify Richard Stockand as the
6 manager who requested this study.

7 A. Yes. That's what we talked about.

8 Q. All right. And then Randy Hopkins as the person
9 to whom you turned over the Quanta studies or to whom
10 these Quanta studies were provided at PG&E?

11 A. Yes. And I'm -- yes, that's correct.

12 Q. Okay. And did you know Randy Hopkins?

13 A. Yes.

14 Q. Who was Randy Hopkins?

15 A. Randy Hopkins was an engineer. When I knew him,
16 he was a transmission engineer and was heavily involved
17 with the maintenance and operation of transmission
18 structures.

19 MR. NOEL: All right. So, Mr. Dow, that is all
20 the questions I have for you.

21 THE WITNESS: Okay.

22 MR. NOEL: The jurors are allowed to ask you
23 questions. So it looks like they're writing down their
24 questions. The way they do it is they write their
25 questions down for you. Madam foreperson, myself, and
26 Ms. Dupre-Tokos review those questions and then decide if

1 we can ask them. And then decide -- I will -- if the
2 question can be asked and are relevant and admissible, I
3 will read you those questions.

4 So if you hang tight for a second and let us
5 review the questions.

6 [Conferring off the record.]

7 MR. NOEL: All right. These are the questions
8 from the jurors.

9 "When you say not all infrastructures are the
10 same in a simple at-risk versus not-at-risk situation or
11 evaluation of environmental factors, on which of these
12 would mountainous towers reside?"

13 THE WITNESS: Those would be -- we'd consider
14 that to be mountains.

15 BY MR. NOEL:

16 Q. Okay. But would those be at risk or not at
17 risk?

18 A. I don't think I identified anything at risk.
19 I'm not sure if I do risk or not at risk.

20 Q. I think the question comes from when we were
21 talking about the corrosive and being at risk because of
22 corrosion.

23 A. Oh, not at risk from corrosion.

24 Q. Okay. But at risk, period?

25 A. It would be at risk probably from wind.

26 Q. Okay. You stated that the inspection regimen in

1 Exhibit 825 was recommendations from a group who had
2 actually done inspections of maintenance. Was there
3 anyone in this group representing fiscal and fiduciary
4 aspects of the changes represented in the documents?

5 A. I'm not sure I understand the fiscal, what they
6 mean by fiscal. I'm not sure I understand.

7 Q. I think ultimately the question goes into how
8 much did money and cost play into the decision to lower
9 the standard for inspections and patrols?

10 A. I don't believe that -- that -- cost is
11 considered in everything, but I don't believe these
12 changes were made so that they could reduce costs a lot.
13 Cost may have been reduced as a result of those changes,
14 but that was not the impetus.

15 The impetus was is there a way we can do this
16 better where we can be more efficient? But there was
17 not. You have to reduce the cost by 10 percent or
18 5 percent or any percent. There was not a "you must
19 reduce."

20 If they had come up with -- if they had come up
21 with a process that cost more, we would have considered
22 that as well.

23 Q. Was there anyone from the financial side,
24 whether budgeting or finances, that was part of the
25 committee that was reviewing those and approving those
26 changes?

1 A. No.

2 Q. "Can you explain in simple lay terms the
3 difference between capital expense budgets and capital
4 and operating revenue." So let's start with capital
5 expense budgets.

6 A. Capital budget is -- is money you could spend
7 for -- for -- this is difficult. Let me think about this
8 for a second.

9 PG&E earns money -- earns money on its capital
10 assets. So if we have a rate case, the rates -- there's
11 an expense component or -- expense and MNO are the same
12 thing. There's the expense component.

13 And the company's commission says "You spend
14 this much money on expense. That's it. You spend any
15 more than that and you're -- it comes out of -- out of
16 shareholders." And so there's no earnings on it. That's
17 just a budget given to you. You spend it as you need.

18 Then there's the capital portion, and the
19 utility earns its money on the value of the capital
20 assets that's in service. So when you capitalize
21 something, you're putting it into the rate base and
22 you're earning on that.

23 So the difference between capital and expenses
24 is if you capitalize something, it goes into rate base
25 and the company can earn money on that. If you expense
26 something, there's no earning on that. That comes out of

1 the pot of money the commission says you can spend to run
2 your business.

3 And so that's the capital. So we're given in a
4 budget expense dollars and capital dollars. And you need
5 to be careful about where you put those dollars because
6 where you put those dollars depends on how much the
7 company will earn and the future rates and how much the
8 company is spending on the expenses. So those are
9 budgets.

10 Q. And you bring up a good point in there that we
11 haven't dealt with yet and will be delving into here in
12 the future. Are you familiar with the term "authorized
13 rate of return"?

14 A. Yes.

15 Q. What is the authorized rate of return?

16 A. Authorized rate of return says basically that
17 the company can earn a rate as authorized to earn a rate
18 of return, earn a rate on its capital investment.

19 So if you have a capital investment, you can
20 earn -- you are authorized to earn, whatever, X percent.
21 It doesn't say you're guaranteed to earn X percent. It
22 says you're authorized to earn X percent. You may earn X
23 minus percent.

24 So authorized rate of return is what the
25 commission says is okay for a company to earn against its
26 capital assets.

1 Q. And again, I'm horrible with numbers but tell me
2 if this is right. For every dollar that PG&E spends on
3 capital projects, PG&E is allowed to make a certain
4 percentage of profit on that dollar; correct?

5 A. Every dollar on capital, yes.

6 Q. And part of that has to do with the rate case
7 and how much the charges are; correct?

8 A. That's correct.

9 Q. So the capital projects going to the rate case
10 which determines how much the rate payors are paying for
11 their product from PG&E; correct?

12 A. Yes, Sir.

13 Q. And so if you're spending a dollar on capital,
14 that authorized rate of return allows you to actually
15 charge the rate payor something like, say, a dollar ten.
16 So PG&E profits off of the capital?

17 A. That's how utilities earn their money. They
18 earn their money off of the capital asset that they have
19 that's being used and useful.

20 Q. And then the other end of it is the capital
21 assets, the capital improvements are able to be
22 depreciated against taxes over a long period of time?

23 A. That's correct.

24 Q. So there are huge advantages to PG&E to
25 capitalize projects; correct?

26 A. Yes. There's also a disadvantage.

1 Q. Right. What is the disadvantage?

2 A. The disadvantage is that you also don't want
3 your rate payors' rates to go up. So you don't want
4 to -- you don't want to spend a lot of capital which will
5 unnecessarily cause a rate increase. So I mean, that's
6 another side of it.

7 Q. Right.

8 So going back to the hypothetical we talked
9 about earlier, that hypothetical where a project gets
10 approved for Advance Authorization for exploration,
11 exploration goes over budget, and ultimately the decision
12 is made to not green light the project, to kill the
13 project.

14 That difference between what was authorized and
15 what was actually spent, the idea of doing some actual
16 project so that there's something to show for that money
17 so that they can capitalize that money means that that
18 money can be charged back to the rate payors; correct?

19 A. Yes.

20 Q. That they make a profit on -- a percentage of
21 profit on each dollar that they spend on that project?

22 A. Yes.

23 Q. And they can depreciate that project and use
24 that as a tax write-off?

25 A. Yes, that's the process.

26 Q. "Under what circumstances would a project

1 designed to replace deteriorated infrastructure that --
2 under what --"

3 I'm stumbling with the wording here.

4 MS. DUPRE-TOKOS: "Under what circumstances
5 would a project designed to replace, quote, 'deteriorated
6 infrastructure' where that -- where such infrastructure
7 was in fact in danger of collapse be cancelled or delayed
8 indefinitely?"

9 THE WITNESS: I don't think they should.

10 BY MR. NOEL:

11 Q. "Do you know how many wind studies were done?"

12 A. No. You know, there -- no, I don't.

13 Q. If you don't know, that's fine.

14 A. I don't know.

15 Q. And do you know in what years they were done?

16 A. Varying years. They've been doing those for a
17 long time.

18 Q. "Are the studies still being -- to your
19 knowledge, are the studies still being done?"

20 A. I think if there's a reason to do it, they would
21 do them. But I don't know if there's any underway now.
22 I don't know.

23 Q. "To your knowledge are the wind studies done on
24 all towers or just ones in mountain areas"?

25 A. They're done in specific -- not for a tower
26 normally. They're done and usually in a specific area.

1 So there's a wind -- you know, the wind is bad in that
2 area and they would study this area and actually study to
3 determine what the geographic area is.

4 So oftentimes those -- wind studies are
5 generated by something. They found - they were doing an
6 inspection and they found it's windy and there's
7 something shaking or whatever. I just made that up so
8 don't hold me to that.

9 There's some reason that the wind study is done.
10 Something is wearing out fast or something is broken.
11 There's a reason for the study. You say wind and then we
12 ask for a study. And then the wind people or the study
13 people would come out and determine "Hey, this area has
14 this type of wind. It goes from here to here."

15 And they will often determine the area where the
16 wind study needs to be done. And so it's not for a
17 tower. It's for a location.

18 Q. All right. I'm only going to read part of this
19 and kind of backward.

20 First "Did you actually help with the
21 preparation and research for any of the Quanta reports?"

22 A. Not really. I mean, I participated, as I
23 mentioned. And I may have read one as it come in, but I
24 didn't do any -- I didn't do any of the research and did
25 not write the document.

26 Q. "Why would you not know how much Quanta charged

1 for or was charging PG&E for the report?"

2 A. It was ten years ago. I just don't remember.

3 Q. Can you kind of estimate or give us kind of an
4 idea. Are we talking about hundreds, thousands, hundreds
5 of thousands, millions of dollars?

6 A. Well, not millions. I don't know.

7 Q. Okay.

8 A. I'd be guessing. That's not fair.

9 Q. That's exactly right.

10 To your knowledge -- and this is back to your
11 career with PG&E -- was there a bonus or incentive
12 program if budgeting metrics were met?

13 A. Absolutely, yes.

14 Q. And did you ever receive a bonus from PG&E
15 because budgeting metrics were met?

16 A. Yes.

17 Q. Do you recall how much?

18 A. It's part of a formula. I don't know what the
19 percentage is.

20 Q. And I'm guessing that being met means that you
21 stayed within your budget?

22 A. Yes.

23 Q. Did you get more of a bonus if you came in under
24 budget?

25 A. Probably. I don't remember the details, but it
26 would be reasonable to expect that you would be exceeding

1 performance. So I would probably say that is probably
2 yes, but I don't know the values.

3 Q. When you were in the transmission division, were
4 there bonuses available to you for staying within budget
5 when you were the T-line original supervisor in San
6 Francisco?

7 A. Yeah. I -- I'm going to give you I think so. I
8 don't remember. I don't remember every component, you
9 know, in different jobs. You have different components,
10 but it's reasonable that that is the case, yes.

11 Q. You don't remember. Let's leave it at that.
12 We're talking about over 30 years ago.

13 A. Who said that? Has it been that long?

14 MR. NOEL: Any further questions? Any follow-up
15 to that?

16 All right. Thank you. Madam foreperson is
17 going to read you your admonition again and then you can
18 leave.

19 GRAND JURY FOREPERSON: Mr. Dow, you are
20 admonished not to discuss or disclose at any time outside
21 of this jury room the questions that have been asked of
22 you or your answers until authorized by this grand jury
23 or the Court. A violation of these instructions on your
24 part may be the basis for a charge against you of
25 contempt of court. This does not preclude you from
26 discussing your legal rights with your own attorney.

1 Mr. Dow, what I have just said is a warning not
2 to discuss this case with anyone except the Court, your
3 lawyer, or the district attorney.

4 Do you have any questions?

5 THE WITNESS: No, Ma'am.

6 GRAND JURY FOREPERSON: Thank you for your time
7 today.

8 THE WITNESS: Thank you.

9 [Witness exits the courtroom.]

10
11 [DISCUSSION OMITTED.]

12
13 [Break taken from
14 11:41 until 11:45.]

15 MR. NOEL: Hand-outs are right here.

16 [Witness enters the courtroom.]

17 GRAND JURY FOREPERSON: Mr. Gabbard, before you
18 have a seat, would you please raise your right hand to be
19 sworn.

20 THE WITNESS: Yes.

21 GRAND JURY FOREPERSON: Mr. Gabbard, you do
22 solemnly swear that the evidence you shall give in this
23 matter pending before the grand jury shall be the truth,
24 the whole truth, and nothing but the truth so help you
25 God?

26 THE WITNESS: I do.

1 GRAND JURY FOREPERSON: Thank you. Have a seat,
2 please.

3 MR. NOEL: I forgot to tell the witness you have
4 a bottle of water down there to your right. There's at
5 least some left over of the case of water for witnesses.
6 If you need water, feel free to grab a bottle.

7 THE WITNESS: Thank you.

8 **EXAMINATION**

9 BY MR. NOEL:

10 Q. Can you please state your full name for the
11 record spelling your last name.

12 A. My name is David Gabbard, last name is
13 G-a-b-b-a-r-d.

14 Q. Are you employed, Mr. Gabbard?

15 A. Yes, I am.

16 Q. By whom?

17 A. Pacific Gas & Electric Company.

18 Q. And what is your current position?

19 A. My current position is senior director of
20 Transmission Substation Project Management and
21 Engineering.

22 Q. That is a mouthful.

23 A. It is.

24 Q. How long have you been in that position?

25 A. I have been in that position since September of
26 last year.

1 Q. How long have you been with PG&E?

2 A. Approximately 15 years.

3 Q. Let's go back before PG&E. Why don't you tell
4 us your educational background.

5 A. Sure. So I received a Bachelor's of Science in
6 mechanical engineering from California State University
7 San Luis Obispo in 2006. I think I graduated in 2006.

8 Prior to graduation, I started at PG&E Diablo
9 Canyon Nuclear Power Plant on a rotational program while
10 at school at Cal Poly. From there started full time for
11 PG&E and have been working at PG&E since.

12 In my tenure at PG&E I also went back and got a
13 Masters of Business Administration from the Wharton
14 School of Business at the University of Pennsylvania.

15 Q. How were you able to get a degree from the --
16 from Wharton at the University of Pennsylvania while
17 working full-time at PG&E? Two different areas of the
18 country.

19 A. The Wharton school has an executive program set
20 up to accommodate folks trying to get their MBA on the
21 West Coast. That curriculum was set up to have class on
22 the Embarcadero in San Francisco for which the school
23 flies out their professors to the program so that we can
24 complete it without too significant of a burden from a
25 travel standpoint.

26 With that said, my classmates did come from all

1 over the country. So many did end up traveling from as
2 far as Beijing.

3 Q. You said Beijing?

4 A. Yeah.

5 Q. So they didn't only come from all over the
6 country, from all over the world.

7 A. All over the world, correct. Thank you for that
8 clarification.

9 Q. Walk us through your career at PG&E, if you
10 would work, please.

11 A. Absolutely. So as I mentioned, started with
12 PG&E at Diablo Canyon Nuclear Power Plant, held a few
13 different rotations during my time there. I also had the
14 opportunity to work one of the outages for the plant on a
15 special assignment.

16 There I transitioned into an entry engineer
17 rotation program where I moved through various functions
18 within the enterprise to get a diverse perspective on our
19 operation starting full-time as a project manager
20 managing capital projects to rebuild gas and electric
21 infrastructure mainly on the distribution side of our
22 business.

23 From there I transitioned into various levels of
24 leadership moving into a supervisor role and then
25 subsequently a manager role, through re-organizations had
26 the opportunity to shift focus into our generator

1 inner-connection space. So that's focused on
2 inner-connecting new generation most of which at that
3 time was focused on inner-connection new renewables,
4 large-scale solar projects all the way down to
5 inner-connection of rooftop solar for our customers.

6 I progressed through varying levels of
7 leadership within that organization ultimately reaching
8 the level of director for electric generation connection
9 and then subsequently took on the role of senior director
10 of Transmission Asset Management prior to transitioning
11 into my current role.

12 Q. All right. What were your duties as a senior
13 director of the Transmission Asset Management?

14 A. As a senior director of Transmission Asset
15 Management I was responsible for overseeing the
16 organizations within PG&E, responsible for asset
17 management of our transmission and substation
18 infrastructure as well as overseeing our risk management
19 governance group within the electric options.

20 At one point our electric generation
21 inner-connection organization was also moved under my
22 organization. So that role was re-added to my
23 responsibilities. And I was responsible for running the
24 organization and enabling employees within that
25 organization to be affective to deliver on their
26 objectives.

1 Specific to the asset management role I filled a
2 sponsor role for new capital projects to replace
3 infrastructure or enhanced infrastructure across PG&E's
4 transmission and substation systems.

5 Q. We're going to go back and we're going to break
6 that down probably after lunch because it's almost noon.
7 I guess we've got 10 minutes.

8 So first off, before you became the senior
9 director of the Transmission Asset Management, what
10 experience did you have with electrical transmission?

11 A. My experience with electrical transmission
12 before taking the transmission asset management role was
13 primarily focused on project managing replacement
14 projects associated with transmission substation
15 infrastructure for a short period of time as well as
16 managing generation inner-connection projects or managing
17 a portfolio of inner-connection projects that included
18 transmission and substation scope in order to connect
19 large scale renewables to PG&E's system.

20 Q. And if you could define for us what you mean
21 when you use the term "portfolio."

22 A. What I mean by portfolio is a collection of
23 projects that are occurring within a period of time
24 required to meet the objectives of the program. Those
25 objectives could include meeting customer requests as far
26 as timelines as well as meeting compliance obligations

1 set out by our regulators.

2 Q. All right. So when -- in the title Transmission
3 Asset Management, can you define for us what is the
4 assets you're managing.

5 A. The assets we're managing within the
6 Transmission Asset Management are any electrical assets
7 and infrastructure at voltages 60kV and above in terms of
8 transmission lines as well as substations which are the
9 fenced-in area that transform voltages from higher
10 voltages down to lower voltages. For that asset base
11 it's any component within that footprint.

12 I was responsible for both transmission voltage
13 and distribution voltage for substations. Those assets
14 included components like transmission structures,
15 transmission conductor, insulators, circuit breakers,
16 substation busses, and transformers. It would also
17 include voltage regulation, devices like regulators,
18 static bar compensators, and other similar pieces of
19 equipment.

20 The one limitation that I would say would
21 inhibit me from characterizing my responsibility as
22 governing all transmission voltage assets is that we do
23 have system protection-related assets and system
24 automation related assets the purview of which fell
25 within another work group.

26 Q. All right. And can you define for us how you

1 managed those assets.

2 A. My team's responsibility for managing those
3 assets would be to track performance of the operation of
4 the assets and ultimately make recommendations for
5 enhanced -- future enhancements for those assets,
6 investments that would occur over the next five to ten
7 years both to replace aging infrastructure, enhance
8 existing infrastructure for greater operational
9 flexibility as well as increased capacity to meet NERC
10 reliability plan and standards.

11 Q. Another term that you used in your initial
12 answer was that risk was also part of your organization.
13 If you could explain to us what is risk and how do you
14 manage that.

15 A. Absolutely. Risk showed up in my
16 responsibilities in two forms. Risk informs our
17 strategies. Risk I define as the probability and
18 consequence of an event occurring. Risk informs our
19 overall strategies to the way that we invest in our asset
20 base on the substation side, but I also was responsible
21 for overseeing a small team of risk managers that manage
22 the governance process from an electric operation
23 standpoint for highlighting enterprise level risks and
24 bringing visibility to those risks to our executive team
25 making sure that our integrated planning process was
26 informed by those risks.

1 Q. What do you mean by "enterprise risks"?

2 A. What I mean by enterprise risks are risks that
3 have been defined as such, the risks that can impact the
4 overall operation of our business. They're not project
5 specific risks that are very location specific or
6 individual asset specific but rather categories of risk
7 that could impact our business.

8 For example, one enterprise level risk would be
9 poor location of gas infrastructure with substations. We
10 have seen instances in the past where faults that occur
11 on a transmission system not truly are underground in
12 order to mitigate the safety exposure associated with
13 them have the potential to run along gas infrastructure
14 as a source of path of least resistance.

15 So we have an enterprise side identifying the
16 need to make sure there's enough space between our gas
17 infrastructure and our electric substations to avoid any
18 negative consequences associated with that exposure.

19 Q. Is another enterprise risk wildfire?

20 A. Yes, it is.

21 Q. And are the enterprise risks ranked?

22 A. Yes, they are.

23 Q. And what is the number one enterprise risk for
24 PG&E over the last few years?

25 A. The number one risk has been wildfire.

26 Q. And that's actually basically since about 2007.

1 Isn't that correct?

2 A. I don't know the original date when it was given
3 the high score. And that's across electric operations.
4 I can't speak to whether that is across the entire
5 enterprise.

6 Q. So when you talk about -- well, first of all,
7 let me define the term. When you use the term
8 "informed," can you explain to us what you mean.

9 A. Recite back to me what you're referencing.

10 Q. You said two different contexts. You used it in
11 terms of making informed decisions and you've also talked
12 about the risk management; that your risk managers
13 inform, for instance, the board of directors or the
14 officers of the company.

15 [Counsel conferring off the record.]

16 MR. NOEL: Oh, yeah.

17 BY MR. NOEL:

18 Q. And there's a third way we'll get to in a
19 second.

20 A. Okay. So I heard two examples specifically of
21 the informed that were just called out. I will speak to
22 the first one is making sure that we are informed in the
23 decisions we make on how to investigate our
24 infrastructure. By informed I mean collecting
25 information available regarding our assets both the
26 characteristics of the assets as well as the performance

1 of those assets.

2 So if there was an outage that occurred on the
3 line, we are tracking to understand what was the cause of
4 that outage and is there recurrence or what's the extent
5 of conditions associated with that performance? And
6 those will inform the decisions that we make for
7 investigating in our infrastructure.

8 We also are informed by the different
9 characteristics of our assets. Whether or not a line is
10 operating at full capacity or if it's underutilized will
11 inform whether or not we will need to upgrade it in order
12 to accommodate future load growth across the service
13 territory.

14 Q. I guess one of the problems is that in defining
15 the term, you're using the term. So you're -- so to
16 inform means to inform decisions. And what we kind of
17 need to know so we're all on the same basis is exactly
18 what that word means to you in the context that you're
19 using it.

20 A. I apologize. I don't know how to answer your
21 question.

22 **EXAMINATION**

23 BY MS. DUPRE-TOKOS:

24 Q. So, Mr. Gabbard, for example, you started to
25 give us a definition of being informed as gathering
26 information, but then you said that informed your

1 decision. So you're using informed in terms of it
2 informed your decision in your definition of what
3 informed means to you.

4 So we need you to decide what informed means to
5 you without using informed in a different way in the
6 definition. And then we're going to need you to define
7 your understanding of what informing a decision means.

8 A. Okay.

9 Q. Did that make sense?

10 A. I'll -- I'll -- I'm not sure yet, but I'll try
11 my best.

12 I think what you're asking for is I'm using the
13 term "informed" to mean make information available.
14 Information that is relevant to a decision would inform
15 the decision. That's what my definition would be.

16 Q. Okay. And then your other definition that you
17 provided us was the collection of information?

18 A. Correct.

19 Q. Where you're informing yourself by collecting
20 information and then you use that information to inform
21 your decision?

22 A. That is correct.

23 **EXAMINATION CONTINUED**

24 BY MR. NOEL:

25 Q. And then the other context in which you used it
26 was you said "risk informed." If you could explain to us

1 what that means.

2 A. You're talking about in terms of the role the
3 risk management team plays in informing our senior
4 executive team. Is that the question?

5 Q. No. You used it in terms of making risk
6 informed decisions, if that makes sense. That was the
7 note that I took was that you said something about
8 risk-informed decisions. And if you could define that
9 for us.

10 A. Okay. So following the same definition it would
11 be making sure that information was available for
12 decisions being made specific to risk. This goes back to
13 the definition that I used earlier. Is any information
14 relevant to quantifying the probability and consequence
15 of an event occurring?

16 Q. So -- and again, probability means what?

17 A. Probability means the likelihood of something
18 happening.

19 Q. And consequence means what?

20 A. The impact of that event occurring. In terms of
21 how PG&E quantifies consequences, we usually categorize
22 it in a number of areas focused on safety, impact
23 reliability, impact to the environment are some examples.

24 Q. And again, the standard you can define for us
25 when you use the term "quantifying" as in quantifying
26 risk, quantifying consequences, what does that term mean

1 to you?

2 A. To me quantifying means being able to represent
3 information in a numerical fashion. So if --

4 Again, I'm going to use quantifying in the --

5 Q. To assign a value?

6 A. If I could calculate a value, that would be
7 quantification.

8 Q. All right.

9 A. If I can only use subject matter expert or
10 anecdotal evidence, it would be more of a qualification
11 of information.

12 MR. NOEL: It is 12 o'clock. I'm seeing a lot
13 of movement.

14 Madam Foreperson, are you ready to take the
15 lunch break?

16 GRAND JURY FOREPERSON: Yes, we are.

17 MR. NOEL: All right. She is going to read you
18 an admonition and then we'll take a break until 1:30.

19 GRAND JURY FOREPERSON: Okay. Mr. Gabbard, you
20 are admonished not to discuss or disclose at any time
21 outside of this jury room the questions that have been
22 asked of you or your answers until authorized by this
23 grand jury or the Court. A violation of these
24 instructions on your part may be the basis for a charge
25 against you of contempt of court. This does not preclude
26 you from discussing your legal rights with your own

1 attorney.

2 Mr. Gabbard, what I have just said is a warning
3 not to discuss this case with anyone except the Court,
4 your lawyer, or the district attorney.

5 Do you have any questions?

6 THE WITNESS: I do not.

7 GRAND JURY FOREPERSON: Okay. Thank you.

8 THE WITNESS: Thank you.

9
10 [DISCUSSION OMITTED.]

11
12 [Whereupon the luncheon recess is
13 taken from 12:06 until 1:35 p.m.]

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1 FEBRUARY 21, 2020

2 AFTERNOON SESSION

3
4 [ROLLCALL OMITTED.]

5
6 GRAND JURY FOREPERSON: Okay. Ready to proceed.

7 MR. NOEL: Ready?

8 [Witness enters the courtroom.]

9 GRAND JURY FOREPERSON: You can have a seat,
10 Mr. Gabbard. I'd just like to remind you that you're
11 still under oath.

12 THE WITNESS: Thank you. Understood.

13 MR. NOEL: Ready?

14 **EXAMINATION CONTINUED**

15 [Exhibit 1350 introduced
16 as evidence.]

17 BY MR. NOEL:

18 Q. All right. You should have in front of you
19 what's marked as Exhibit 1350. Ask you to take a look at
20 that exhibit. It's three pages. And tell me if you
21 recognize the information depicted in that exhibit.

22 A. Yes, this looks familiar.

23 Q. Okay. What is Exhibit 1315? 1350. I'm sorry.

24 A. It's a couple of pages of the org structure
25 effective December 31, 2018, for PG&E.

26 Q. All right. So can you kind of walk us through

1 Exhibit 1315 starting with your place -- 1350 starting
2 with your place in the organization.

3 A. Sure.

4 Q. Feel free -- you can stand up and use the big
5 board if you'd like.

6 A. Sure. So my position within the organization is
7 shown here (indicating) on the visual where my position
8 at the time is denoted as senior director of Transmission
9 Asset Management. In this role of reporting to the vice
10 president of Electric Asset Management at the time was
11 Kevin Dasso.

12 If we move to the next page, this page shows
13 Kevin Dasso's reporting structure up to Pat Hogan, Senior
14 Vice President of Electric Operations. And then the
15 subsequent slide shows Pat's reporting structure up to
16 the utility.

17 I don't recall whether this was the president
18 position or a chief executive officer position at the
19 time, but it's showing in this slide.

20 Q. Okay. And there's two spots that are vacant.
21 On the far left is a box that says "Officer president and
22 COO." And then up above there's a vacant box that says
23 "PG&E utility."

24 A. That's correct.

25 Q. First off, can you explain to us what your
26 understanding of what "PG&E utility" means.

1 A. PG&E utility is referencing the utility portion
2 of PG&E. Within our org structure in this system of
3 record we also have positions identified for PG&E
4 Corporation which are -- which operates independent of
5 the utility.

6 Q. Does the utility -- is the utility owned by the
7 corporation?

8 A. Yes.

9 Q. And then the office of president and COO that is
10 blank there. Do you know who the most recent occupant of
11 that office would have been?

12 A. I do not. And for clarification, that is
13 because I don't exactly know what is being referenced as
14 that vacant box.

15 Our structure as a utility has changed in this
16 time period from having a president and CEO to just the
17 president to having a president CEO. So I don't recall
18 which iteration of structure and whose role that vacant
19 box represents.

20 [Exhibit 1253 introduced
21 as evidence.]

22 BY MR. NOEL:

23 Q. Okay. All right. So let's on go to the next
24 one. This is Exhibit 1253.

25 And that is what we forgot. I'm sorry. I'm
26 going to have Madam Clerk -- she's going to pull 1253 out

1 of the box for us.

2 While she's doing that, we have the first 1253
3 up here on the board. Do you recognize Exhibit 1253?

4 A. I do.

5 Q. What is Exhibit 1253?

6 A. Exhibit 1253 --

7 Q. And Madam Clerk has the original full exhibit
8 there for you if you'd like to look at it.

9 A. Got it.

10 So to clarify five, I'm not familiar with the
11 cover page associated with Exhibit 1253. The associated
12 document reflects an asset strategy PowerPoint
13 presentation that summarizes the strategy from June 2017
14 for the electric transmission overhead steel structures.

15 Q. Okay. And this was written by someone named
16 Feven Mihretu?

17 A. That is correct.

18 Q. And who is Feven Mihretu?

19 A. Feven at the time was an asset strategy engineer
20 that reported up through the Transmission Asset
21 Management organization.

22 Q. Was Ms. Mihretu in your chain of command at the
23 time?

24 A. Yes, she was.

25 Q. And can you explain to us in general terms what
26 this strategy overview is.

1 A. This strategy overview is a summary of some of
2 the information and characteristics that we manage
3 associated with our transmission overhead infrastructure.
4 It also summarizes some of the information associated
5 with the infrastructure in service across our service
6 territory, and it speaks to some of the criteria used to
7 prioritize investments in subsets of that infrastructure
8 over time.

9 Q. All right. And you said you're not familiar
10 with the cover page; is that correct?

11 A. That is correct.

12 Q. All right. And that cover page starts with the
13 caption "United States of America Before the Federal
14 Energy Regulatory Commission, Pacific Gas & Electric
15 Company, docket number ER16-2320-000."

16 Am I reading that correctly?

17 A. It's 000.

18 Q. Zero, zero, zero?

19 A. That is correct.

20 Q. All right. And back in 2017, on December 4th of
21 2017, you were deposed as a part of a FERC proceeding;
22 correct?

23 A. I don't recall the date, but I believe that's
24 correct.

25 Q. Right. This document that we're looking at,
26 the -- and we have to switch this again. The Overhead

1 Steel Structure Strategy Overview was an exhibit that
2 came in as part of your testimony in that FERC
3 proceeding; correct?

4 A. It is an exhibit that came in as a response to
5 data requests associated with that proceeding. I do not
6 believe it was an exhibit in my testimony in that
7 proceeding.

8 Q. But you referred to this exhibit in your
9 testimony; correct?

10 A. Are you asking if I referred to it in my
11 testimony that was filed at FERC or in my deposition?

12 Q. In your deposition.

13 A. Yes, it was referred to in the deposition.

14 Q. All right. I'm sorry about having to rotate
15 this.

16 All right. So I'd like to walk through this
17 document with you. Oh, that's a good thing.

18 You were deposed as part of the proceedings by
19 FERC and then you said you compared that with your
20 testimony to FERC. Did you also testify?

21 A. Yes.

22 Q. And was that testimony live and in person like
23 today or was it written testimony in response to written
24 questions?

25 A. I believe both. And I say that with a little
26 reservation in that my recollection for that transmission

1 owner proceedings, since I had just started that role,
2 was that I had rebuttal testimony in written form and
3 then in-person testimony at FERC.

4 I also want to clarify that the deposition that
5 you're referencing is part of that proceeding, but the
6 deposition was performed by the CPUC and others.

7 Q. Right.

8 A. And it was not -- no FERC staff were involved in
9 that deposition.

10 Q. Okay. You were actually questioned by Traci
11 Bone of the CPUC as well as some attorneys on behalf of
12 what we generally refer to as stakeholders; correct?

13 A. Affirmative.

14 Q. All right. So we want to go through this
15 document. And once you get to the meat of it,
16 "Transmission Lines Steel Strategy: Transmission Lines
17 Steel Structure Strategy will manage the asset
18 lifecycle -- asset lifecycle, e.g., create, utilize,
19 maintain, renew, replace, and dispose based upon -- based
20 on risk. The renew asset lifecycle is based on proactive
21 cost replacements for high-risk assets. The medium risk
22 asset is based on reactive replacements following asset
23 failures." And then it goes through the major
24 objectives: Safety, reliability, and environmental.

25 Is that correct?

26 A. That's what the document says.

1 Q. And is that in truth how you make determinations
2 to repair/replace assets?

3 A. I would not say that that statement is
4 representative.

5 Q. Okay. Why not?

6 A. For two primary factors; one, decisions for
7 repair versus replace, which is, I believe, what you
8 referenced in your question, are informed by the most
9 cost-effective approach for our customers.

10 MS. DUPRE-TOKOS: I'm sorry. Can you either
11 speak up or speak into the microphone.

12 THE WITNESS: Sure.

13 MR. NOEL: You can pull the microphone over to
14 you. If you're facing the board, it's just -- thank you.

15 THE WITNESS: The second item is --I believe was
16 statement "reactive replacement following asset failures"
17 is misleading.

18 BY MR. NOEL:

19 Q. How so?

20 A. Medium risk assets being based on reactive
21 replacement is referring to replacement upon signs of
22 deteriorated condition. So that reference to failure can
23 mean a number of different things including failure to
24 pass an inspection, for example, or failure to operate as
25 designed or intended to operate.

26 Q. So you're familiar with the term "run to

1 failure"?

2 A. I have heard the term. I may have also used the
3 term in the past. I do not believe it is a term of art
4 with a defined definition.

5 Q. Okay. Basically, the stereotypical example of
6 run to failure would be a light bulb; correct?

7 A. I believe that's the example that I used when we
8 last discussed the topic.

9 Q. Right. Most people do not proactively replace
10 light bulbs -- is that correct -- in your experience?

11 A. That is correct.

12 Q. Do you proactively replace light bulbs?

13 A. At home I do not.

14 Q. All right. And so people allow the light bulb
15 to burn out or fail and then it is replaced.

16 So how does that strategy translate to PG&E's
17 strategy for repair or replacement?

18 A. Are you asking whether or not PG&E employs that
19 type of strategy?

20 Q. Well, PG&E does employ that type of strategy,
21 does it not?

22 A. Yes, it does.

23 Q. So explain to us how PG&E uses that strategy.

24 A. Okay. I'll give you an example. First, I'll
25 argue that PG&E has a lot of light bulbs as well. So it
26 would show up in that instance, but I would also say

1 there are many instances where even for light bulb
2 replacement we would proactively replace. If the
3 envisions associated with replacing all at one location
4 would outweigh the cost of, that could be extracted out
5 of running to failure. And there may be instances of
6 both.

7 Specific examples to assets that were under my
8 purview in the Transmission Assets Management space, one
9 example would be a back-up battery at a substation. We
10 have strings of batteries that are significantly
11 redundant to each other. So failure of a single battery
12 would have zero consequence in the operation at that
13 substation.

14 So that would be an example where we would not
15 replace it before it had stopped working because the
16 failure in service would not have a consequence.

17 Q. Okay. How about insulators? Do you employ
18 run-to-failure philosophy with insulators?

19 A. In terms of catastrophic failure I would argue
20 no. We inspect our facilities on a regular basis and
21 identify insulators that are degrading and identify those
22 for proactive replacement. So that would lend itself
23 towards the strategy of proactive replacement based on
24 information that's informed by our inspection processes.

25 Q. By catastrophic failure I'm getting you don't
26 mean cause -- an insulator causing a catastrophe.

1 A. No, I do not.

2 Q. You're talking about insulators flashing,
3 insulators cracking. Is that what you mean by
4 catastrophic failure?

5 A. Correct.

6 Q. So but when the insulators reach that point,
7 they fail.

8 A. That is correct. So we would identify them for
9 replacement prior to that point.

10 Q. Right. But there are times where you do
11 proactive insulator replacements; correct?

12 A. You mean not identified through inspection?

13 Q. Right.

14 A. Yes, we have done proactive replacement not due
15 to inspection findings, correct, yes.

16 Q. Right. Sometimes, for instance, if you have to
17 do other work on a line, you'll just change out the
18 insulators while the line is de-energized; correct?

19 A. That is correct.

20 Q. Have you ever heard the phrase "If it's brown,
21 take it down" with regard to insulators?

22 A. I have not.

23 Q. What goes into the decision of when to
24 proactively change insulators given the opportunity and
25 when not to?

26 A. Can you ask that question a different way. I'm

1 not sure I fully understand.

2 Q. Well, are there times -- well, I'll give you an
3 example. A transmission line called the Parkway-Moraga
4 line had an issue and likely had to be de-energized while
5 that issue was being fixed. While the line was
6 de-energized, the transmission crews took the opportunity
7 to replacement the insulators on that line. On other
8 occasions when lines are de-energized insulators and
9 other hardware haven't been replaced. So what's the
10 reasoning behind the difference?

11 A. Can you clarify what you mean by de-energized.
12 And the reason I ask that is that my original
13 interpretation was a line was being de-energized in order
14 to support performing planned work, but there are also
15 points in time when a line will be de-energized for
16 operational considerations.

17 Q. For instance, in the Parkway-Moraga line it was
18 de-energized because of a problem with a tower that
19 needed to be fixed that required -- so it was planned
20 work. It was emergency work, but it was planned.

21 So why in a case like that -- what would inform
22 the decision to replace the insulators in that situation
23 but in other situations where you have planned outages,
24 de-energization to the lines, you wouldn't replace
25 insulators?

26 A. I don't know the details of the decision that

1 occurred with that outage, and I would only be
2 speculating at this point.

3 Q. Okay. Well, it goes on in this page and it says
4 "Some of the major objectives associated are safety,
5 reliability, and environmental." Am I correct in that?

6 A. Yes.

7 Q. And we see those three things repeated over,
8 over, and over again in many different forms and many
9 different reasons. How do those three categories --
10 safety, reliability, and environmental -- inform the
11 decisions, for instance, for proactive replacement?

12 A. The -- those three areas of focus are categories
13 used to characterize the different consequences
14 associated with a potential worse-case failure that could
15 occur associated with the asset.

16 So as I spoke to earlier, when quantifying risk
17 we define that as both probability or likelihood of an
18 event and then the associated consequence. So any
19 potential consequence associated with misoperation or
20 failure of an asset or component would be quantified
21 with -- categorized in these three ways.

22 Q. So consequences either to safety, to
23 reliability, or to the environment; correct?

24 A. That is correct.

25 Q. So which of those three is the most important?

26 A. Safety.

1 Q. And you're saying safety is more important than
2 reliability?

3 A. Yes.

4 Q. So why would PG&E replace 46-year-old insulators
5 on a 230 line in the Bay Area because the line is down
6 but leave 100-year-old insulators up in a
7 drought-stricken, wind-ravaged canyon in the north state?

8 A. As I said before, I don't know the specifics of
9 the example you're providing.

10 Q. Okay. The Parkway-Moraga line was shut down
11 because the tower was damaged. We've heard and we've
12 seen in the records that because the line was shut down,
13 PG&E proactively replaced what they referred to as aged
14 insulators.

15 And I got that backwards. The insulators
16 weren't 46 years old. The insulators were installed in
17 1946.

18 So that happened in 2018 under your
19 organization. In 2012 five towers on the Caribou-Palermo
20 line collapsed. The entire line was de-energized for
21 over a month while a shoofly was being built despite the
22 fact that its hardware, its insulators, and its conductor
23 were almost 100 years old. None of it was replaced.
24 There was no proactive work done on that line while it
25 was down.

26 So how do you reconcile those two?

1 A. I don't. I don't know the details behind the
2 event in 2012. I wasn't a part of that interaction. So
3 I actually cannot speak to it.

4 Q. Well, you tell us and we hear over and over
5 again that safety is number one, but the actions seem to
6 show that reliability is the absolute most important.

7 How do you -- you know, how can you respond to
8 that allegation?

9 A. I can only attest to the fact that safety is the
10 number one priority for PG&E.

11 Q. Do you know what the Bay Waters towers projects
12 are?

13 A. Yes, I do.

14 Q. And do you know what the budget for the Bay
15 Waters towers project is?

16 A. I do not.

17 Q. Does \$500 million seem about correct?

18 A. I have no idea.

19 Q. Okay. Well, that's -- your job is -- you're the
20 one that is administering. You're basically managing the
21 budget; correct? The capital budget?

22 A. My job is to identify future work, future
23 planned capital work. Our process has a biased towards
24 identifying work approximately six years out. Management
25 of the current year budget -- and actually, let me take a
26 step back and clarify.

1 I assume your reference was to my previous role.

2 Q. Your previous role, yeah. And I was just about
3 to say that.

4 A. Thank you.

5 My previous role was responsible for nominating
6 and recommending new work primarily focused on six years
7 old in order to feed into our five-year planning horizon.
8 And those projects would then be developed, scoped out in
9 order to be executed on once we got to the point in time
10 where all pre-construction dependancies were cleared.

11 The execution of work in the current year is the
12 responsibility of my new role. So as I have a book of
13 work of identified projects, an authorized budget, my job
14 is to make sure that we coordinate the necessary
15 resources within PG&E in order to execute on that book of
16 work.

17 Q. So you left your prior position about six months
18 ago; right?

19 A. That's correct.

20 Q. So I want to go back, let's say, to November 8,
21 2018. You're the transmission asset manager and you're
22 planning out five and six years in advance. How many
23 non-mandated proactive programs were you planning out for
24 the Caribou-Palermo line?

25 A. Can you ask that question one more time, please.

26 Q. How many non-mandated preventative maintenance

1 proactive projects were on that five to six year
2 projected list for the Caribou-Palermo as of 2018?

3 A. As of 2018?

4 Q. Yes.

5 A. As of 2018 we had a project on the Caribou-Big
6 Bend line section of line and the project on the Big
7 Bend-Palermo line.

8 Q. Now, I said non --

9 A. It was originally --

10 Q. I said non-mandated because we're going to get
11 to those.

12 A. I understand. I understand.

13 Q. Those are the projects you're talking about that
14 were mandated by NERC requirements; correct?

15 A. That is correct. The original catalyst was a
16 NERC alert to mitigate ground-to-conductor clearance in
17 discrepancies. The reason I identify that is as PG&E has
18 seen a need to investigate more in its infrastructure, we
19 have continuously looked to drive efficiencies in the way
20 we execute work.

21 So our bias is to look to understand the scope
22 of work that is warranted when de-energizing a line is
23 previously referenced. And so as we were planning the
24 project to go out and mitigate those NERC discrepancies,
25 we were evaluating the need to expand the scope for
26 additional lifecycling of aging of the structure.

1 Q. We'll get to those projects here in a minute.
2 They're laid out in front of you in those packets. And
3 one of the questions will be what part of each one of
4 these projects is not mandated by the NERC and the CPUC
5 GO95 requirements?

6 A. Do you want me to answer that now or --

7 Q. No. Okay. Let's go on.

8 MS. DUPRE-TOKOS: No. I'd like him to answer
9 the question you've asked him.

10 MR. NOEL: Oh, that's correct.

11 BY MR. NOEL:

12 Q. Other than those projects, were there any other
13 proactive preventative maintenance program projects
14 planned for the Caribou-Palermo for the -- in the next
15 six years? So looking forward to 2024.

16 A. So when I hear "proactive preventative
17 maintenance," there are two categories that come into
18 mind, one of which is planned capital projects as I've
19 been speaking to that fell within my purview one of which
20 is capital maintenance tags that are created as a result
21 of inspection findings. Those originate from an
22 alternate organization within PG&E. I cannot speak
23 definitively to that subset of the portfolio.

24 Q. Okay.

25 A. In terms of transmission line capital projects
26 that fell within under my purview, I am only aware of

1 those two that I previously referenced.

2 Q. When you use the portfolio, you're talking about
3 the assets; correct? The money, the budget for the
4 assets?

5 A. Let me say this one more time. When I reference
6 portfolio, I mean the collection of projects that have
7 been identified and approved to enhance the assets that
8 are under my purview.

9 Q. So how do you build a portfolio?

10 A. How do I build a portfolio?

11 Q. No. Yeah. At PG&E how is a portfolio built?

12 A. So the portfolio with capital projects that I
13 referenced is developed in the integrated planning
14 process. And that originates from my team with specific
15 program managers or asset strategy engineers identifying
16 and nominating work in order to meet the objectives of
17 their programs which may be lifecycle of aging
18 infrastructure or it may be to meet a number of other
19 operational needs or regulatory obligations.

20 Those nominations are reviewed through our
21 integrated planning process and ultimately approved for
22 completion and completion in a given year within our
23 long-term planning horizon. Once approved that
24 collective book of work is what I'm considering the
25 portfolio.

26 Q. Okay. So in that portfolio as of November of

1 2018, there were no projects planned for the
2 Caribou-Palermo line due to proactive preventative
3 maintenance; is that correct?

4 A. I believe so.

5 Q. Why not?

6 A. Why were there no other projects than the
7 projects that were already planned for the line?

8 Q. Why were there no proactive preventative
9 maintenance program projects planned for the
10 Caribou-Palermo line?

11 A. As I previously stated, PG&E has continuously
12 looked to operate more efficiently. It would not be an
13 efficient approach to plan two projects on a single line.
14 As such, our approach has been to look for existing
15 projects on a facility and evaluate the need to modify or
16 expand the associated scope in order to perform the work
17 necessary in conjunction with a single mobilization,
18 single demobilization, single engineering effort, and
19 single permitting activity.

20 Q. All right. We'll come back to this.

21 All right. So now we're looking at page 4 of 17
22 in 1253. And it talks -- there's a list of short-term
23 items and a list of long-term items. Can you explain to
24 us what these are.

25 A. This is a summary of some actions that are
26 planned or underway for the asset strategy engineer or

1 the asset strategy team.

2 Q. Okay. So the very first one under short-term
3 "Continue to evaluate field input and repair, replace as
4 needed." Did I read that correctly?

5 A. That is correct.

6 Q. The field input -- would that be the tags that
7 you're talking about?

8 A. Yes, among other things.

9 Q. What are the other things?

10 A. In addition to notifications created from
11 inspections from field resources, my team also solicits
12 feedback from field personnel as well as our operation
13 personnel in order to maintain a diverse perspective on
14 the requirements and condition of our asset base.

15 Q. Field personnel. Are those the troubleshooters and
16 linemen who are actually working on the lines?

17 A. Yes, or their associated leadership. They would
18 also include engineers working on projects or responding
19 to maintenance activities in the field.

20 Q. So if your field input is garbage, then your
21 first category there "Continue to evaluate field input"
22 is garbage; correct?

23 A. I don't know what you mean by that statement.

24 Q. Well, let's say, for instance, that your field
25 personnel are not actually evaluating and inspecting your
26 transmission assets. So that would mean your evaluation

1 would be incorrect; correct?

2 A. I would say that the value of that first line,
3 the value of the field input would be proportional to the
4 amount and quality of that field input, yes.

5 Q. Okay. So right off the bat you're dependent
6 upon the quality of the input you're getting from the
7 troublemen, the T-line supervisors who are actually
8 hands-on with these assets; is that correct?

9 A. Yes. The input from the field, the quality of
10 that input has an impact on our overall asset strategy.

11 Q. And then it goes on "Continue to coordinate,
12 bundle asset replacement with reliability strategy and
13 systems operations."

14 Did I read that correctly?

15 A. Yes, you did.

16 Q. Is this what you were talking about earlier
17 about efficiencies and bundling things?

18 A. That is correct.

19 Q. All right. So it says "Continue to coordinate
20 bundle asset replacement with reliability strategy and
21 systems operations." Correct?

22 A. Yes.

23 Q. Where in this sentence does it say safety?

24 A. It does not say safety in that sentence.

25 Q. Right. So you're continuing to coordinate and
26 bundle asset replacement with reliability strategy;

1 correct?

2 A. That is correct.

3 Q. Can I interpret that to mean that you're making
4 these decisions asset replacement bundling based solely
5 upon reliability and asset strategy or systems
6 operations?

7 A. That is not correct.

8 Q. That's what it says right there; correct?

9 A. The reference here to reliability strategy, I
10 think, technically should have been capitalized.
11 Reliability strategy is a separate strategy equal --
12 similar to the steel structure strategy that's
13 recommending rebuild of transmission line infrastructure
14 in a consolidated manner from a different lens.

15 So the reference here is to make sure that the
16 work I identified under that program is coordinated with
17 the work identified under this program.

18 Q. Well, this document -- this is -- this came out
19 of your organization; correct?

20 A. That is correct.

21 Q. This is your organization steel structure
22 strategy plan; correct?

23 A. That is correct.

24 Q. This is a document that was filed with FERC
25 during federal proceedings; correct?

26 A. That is correct.

1 Q. And this document specifically says that you're
2 going to coordinate, bundle asset replacement with
3 reliability strategy and system operations. It doesn't
4 say there reliability strategy isn't capitalized as a
5 group, and safety is never mentioned. Correct?

6 A. Safety is not in that sentence, correct.

7 Q. And then it goes on "Complete assessment and
8 develop plan to repair and/or replacement towers in the
9 Bay Water, Delta Water, and Salt Pond Towers." Correct?

10 A. Correct.

11 Q. Can you tell us what constitutes the Bay Waters?

12 A. Bay Waters is a subset of towers around the San
13 Francisco -- greater San Francisco Bay that are exposed
14 to higher corrosion than other -- than a number of other
15 towers in our system.

16 Q. And what constitutes the Delta Water and Salt
17 Pond Towers?

18 A. Delta Water and Salt Pond Towers are similar in
19 nature but not on the San Francisco Bay but rather
20 slightly in on the Delta and adjacent waterways that are
21 salt water high corrosion locations.

22 Q. Basically, this assesses the entire Bay Area;
23 correct? That -- which is the corrosive area around the
24 bay where these towers are exposed to fog and saltwater.
25 Is that right?

26 A. So this does not assess the entire Bay Area. It

1 assesses all the structures adjacent to waterways within
2 the Bay Area.

3 Q. Okay. Why just the Bay Area?

4 A. The -- I actually don't know the origin of the
5 Bay Waters inspections that occurred predating me. So I
6 can't speak to that.

7 Q. Okay. Well, I'm guessing, you know, the Bay
8 Waters goes into the corrosive atmosphere of essentially
9 a salt water atmosphere; correct? Salt water and metal
10 do not go together very well.

11 A. That's correct.

12 Q. Okay. And I'm guessing you're a mechanical
13 engineer. You're qualified to give us that opinion;
14 right?

15 A. To an extent, yes.

16 Q. To an extent. You don't have to be a corrosion
17 engineer to figure out that saltwater and metal do not go
18 together. But my question is -- and this is the Bay
19 Waters around the bay, the Delta waters around the delta,
20 and the Salt Pond Towers. And, yes, those are in
21 corrosive salt water environments but so are Sonoma
22 County, Mendocino County, Humboldt County, and Del Norte
23 County as well as Monterey County, San Luis Obispo
24 County.

25 You've got transmission lines that are all along
26 the coast in salt water environments; correct?

1 A. That is correct.

2 Q. Why only do the Bay Area and Delta towers get
3 special protection and special treatment?

4 A. They do not. Those references were for finite
5 programs that had -- that originated from inspections
6 coming off of historical events that I am not intimately
7 familiar with that said if you look at the following
8 line, the steel structure replacement --

9 Q. We're going to get there. The question is why
10 do only the towers in the Bay Area and the delta area
11 that are obviously exposed to a corrosive environment
12 being next to the ocean and salt water environment, why
13 do they get special treatment that is not afforded to
14 other coastal towers all the way up and down the PG&E
15 system?

16 A. They do not. Our steel structure replacement
17 plan looks at corrosion zone across our service
18 territory.

19 Q. We're going to get to that. But, like, you have
20 the Bay Waters fund, which is a project of Feven Mihretu;
21 correct? And that's a very large fund solely to replace,
22 repair, and maintain the Bay Waters towers; correct?

23 A. That is not correct.

24 Q. Okay.

25 A. The funding for all tower replacement was
26 consolidated into a steel structure replacement plan --

1 Q. Okay.

2 A. -- that included the towers identified in the
3 Bay Waters program, Delta program, Salt Pond program as
4 well as looking at all of the towers across our asset
5 base.

6 Q. So now this document -- this is short-term 2017
7 goals. "Develop a steel structure replacement plan."
8 That's the next one; right?

9 Why is it 2017 and you don't have a steel
10 structure replacement plan?

11 A. So I have provided feedback to my team at this
12 time and subsequent to this time that the use of
13 descriptive language in these prospective documents can
14 be misleading. This would be to develop an enhanced
15 steel structure replacement plan.

16 Q. So what was the steel structure replacement plan
17 before this?

18 A. Previously the steel structure replacement plan
19 would be to replace structures as the need was identified
20 through inspection or as triggered by other projects or
21 other identified needs.

22 Q. So when this says "Develop a steel structure
23 replacement program," that's wrong?

24 A. It is correct, but I wanted to make sure that
25 it's clear. It's to develop an enhanced steel structure
26 placement plan.

1 The primary difference that I would highlight
2 from this plan that's been developed from its predecessor
3 was that we previously replaced towers on a transactional
4 basis. So as a tower was identified for needing
5 replacement, we would replace that tower.

6 As we identified more towers along a given line
7 that needed to be replaced in a similar timeframe, that
8 same mindset that I previously referenced about looking
9 for efficiencies that bundle work and execute larger
10 volumes of work more efficiently, that lent -- lead to
11 the development of a steel structure replacement plan
12 that is looking at replacing numerous structures across
13 the line all in one project as opposed to a project for
14 each individual structure that was identified for
15 replacement.

16 Q. So you now have one unified steel structure
17 replacement program plan; correct?

18 A. That is correct.

19 Q. So why do you still need the bay and delta steel
20 structures or why did they still need their own
21 designations and their own categories?

22 A. Can you define "need."

23 Q. Well, they do. You still have special programs
24 for the Bay Waters Towers. You still have special
25 programs for the Delta Water Towers. If you have a
26 unified enhanced steel structure replacement program at

1 this point in time, why would there be a need to treat
2 any structures differently?

3 A. So in terms of actual work to replace or funding
4 source, I would argue that those structures were not
5 treated differently. The one reason why I would expect
6 Bay Waters, Delta Water, and Salt Pond Towers to be --
7 continued to be specifically referenced is to make sure
8 that they are -- to highlight that they're continuing to
9 be on the radar and executed against and not, you know,
10 going incomplete and being superseded by an alternate
11 program.

12 Q. I mean, these two things are back to back on
13 this list. "Develop a plan to repair and/or replace
14 towers in the Bay Waters, Delta Waters, and Salt Pond
15 Towers and then develop and enhance according to steel
16 structure replacement plan that is uniformed for all of
17 the transmission assets.

18 So that seems to contradict what you're saying
19 about they're all treated the same.

20 A. I disagree with you.

21 **EXAMINATION**

22 BY MS. DUPRE-TOKOS:

23 Q. I guess I'm a little confused. And so I'm going
24 to shorthand and put into regular English what my
25 understanding of what you just said was.

26 A. Sure.

1 Q. That the complete assessments and developed plan
2 to repair and/or replace towers in Bay Waters, Delta
3 Water, and Salt Pond Towers, that that was being kept
4 separate to make sure that nothing was missed with those
5 towers and --

6 Right? Is that essentially what you just said?

7 A. No.

8 Q. Then what did you say?

9 A. It's not being kept separate. As I stated, it's
10 rolled into a single tower replacement program.

11 Q. Okay.

12 A. The reference to those structures and the fact
13 that they were part of those programs, which has a
14 history to it, specific external inspections and other
15 reports that have identified and quantified the condition
16 of those assets, that characterization will carry forward
17 with those towers until they're replaced.

18 But despite hearing reference to "this structure
19 was identified as needing replacement through the Bay
20 Waters Program or through the Delta Waters Program or
21 through the Salt Pond Towers assessment," that reference
22 does not reference a separate program any longer because
23 those programs were consolidated into a single program
24 for your transmission steel structures.

25 Q. Okay. So what I'm not understanding is if the
26 special inspections for those specific towers exposed to

1 corrosive elements have to make sure they stay with them
2 until they're replaced, why do they still need their own
3 separate names up there? Why can't you just have the one
4 entry? Why are they still being held separate?

5 By keeping it as a separate entry, how does that
6 keep the inspection program and everything else that you
7 just said needs to stay with it until those towers are
8 replaced? It doesn't need to be its own category on
9 there.

10 A. I don't disagree. I don't think there's a need
11 to have a separate line here, but the engineer elected to
12 put a separate line there.

13 Q. The engineer you supervise?

14 A. That is correct.

15 MS. DUPRE-TOKOS: Okay.

16 MR. NOEL: All right.

17 THE WITNESS: And also did not have a
18 consequencing result of development of a holistic program
19 across our territory.

20 **EXAMINATION**

21 BY MR. NOEL:

22 Q. All right. Now skip down a couple. "Develop a
23 corrosion management plan for new and existing
24 foundations." Did I read that correctly?

25 A. Yes, you do.

26 Q. The corrosion zone is the Bay Waters, Delta, and

1 Salt Pond Towers; correct?

2 A. The corrosion zone -- the entire service
3 territory in a corrosion zone is characterized in
4 different levels of corrosion zone.

5 Q. Okay.

6 A. The higher corrosion zones tend to encompass the
7 areas around the Bay Waters, Delta, Salt Ponds, and then
8 up and down the Pacific Coast.

9 Q. So again, now we're, you know, developing a plan
10 to replace and -- to repair and replace towers Delta, Bay
11 Waters, blah-blah-blah.

12 Now, if we have a unified enhanced steel
13 structure, then why is it necessary to develop a specific
14 corrosion management plan? Why isn't that covered in the
15 overall enhanced structure replacement plan?

16 A. Because they're two separate things.

17 Q. Okay. That was another of the projects from
18 Feven Mihretu; correct?

19 A. Can you clarify what you mean by "project."

20 Q. Looking at the effects of corrosion on the
21 foundations, the tower foundations.

22 A. That is part of her -- her job responsibility at
23 the time, yes.

24 Q. And her specific focus was on the Bay Waters
25 towers; correct?

26 A. Her specific focus was on foundations for towers

1 in higher corrosion zones.

2 Q. Right. So she wasn't up here in the mountains
3 looking at the effects or developing a corrosion
4 management plan for towers on the Caribou-Palermo or the
5 Pit River towers or any of those?

6 A. That is correct.

7 Q. And she wasn't doing that in the Central Valley
8 talking about Fresno, Bakersfield, Sacramento area
9 transmission lines; correct?

10 A. That is correct.

11 Q. She's doing this -- a corrosion management plan
12 for the Bay Waters, Delta Water, and Salt Pond towers,
13 those towers that are in the high-corrosion zone. That's
14 correct; right?

15 A. The initial effort was correct in the second
16 half of your statement which is for the towers in the
17 higher-corrosion areas that were experiencing issues with
18 degradation and the existing tower foundations.

19 My expectation is that overall plan would
20 encompass all of the assets but would likely only impact
21 those that were exposed to those types of most
22 degradation.

23 Q. All right. Next "Evaluate the effectiveness of
24 the design, maintenance, and inspection program and make
25 necessary recommendations for improvements."

26 Did I read that correctly?

1 A. Yes, you did.

2 Q. So evaluating among other things the maintenance
3 and inspection programs. And that is something that you
4 were looking at in 2017; correct?

5 A. That is correct.

6 Q. And there was actually a committee that was put
7 together to look at that very -- that very item to
8 evaluate the inspection and maintenance plans; correct?

9 A. I don't know.

10 Q. Okay. Well, that was a committee that was put
11 together to evaluate the maintenance an inspection
12 program and to determine if there were ways that it could
13 be minimized; that you could save more money on the
14 maintenance and inspection program. Is that correct?

15 A. I don't believe so.

16 Q. Okay. Well, you guys like to put things into
17 PowerPoint slides; correct?

18 A. That is correct.

19 Q. And there is a PowerPoint slide that talks about
20 a committee. And I think among the other people on there
21 was, what, Eric Back and Chuck Stinnett? Do you know who
22 those guys are?

23 A. I do.

24 Q. And it actually says in the summary that what
25 that committee was to do was to analyze the maintenance
26 and inspection program for budget reductions.

1 So were you aware of that?

2 A. I don't know.

3 Q. So how were you going to evaluate the
4 effectiveness of the design, maintenance, and inspection
5 program and make necessary improvements, necessary
6 recommendations for improvements?

7 A. At the time this document was written, these
8 statements were forward-looking.

9 Q. Okay.

10 A. So the intent was to drive improvements in our
11 design, maintenance, and inspection programs. The
12 details of how we were going to do that were still to be
13 developed.

14 Q. Okay. Well, if your documentation shows that
15 the intent of the evaluation of the maintenance and
16 inspection program was to reduce the patrol and
17 inspection cycles, how does that effect number one up
18 here we talked about continuing to evaluate the field
19 input and repair or replace as needed?

20 A. I'm not familiar with the reference that you're
21 making to the --

22 Q. Well, if you're getting less inspections, if
23 you're inspecting and patrolling your assets less, then
24 you're going to get less information from your subject
25 matter experts out in the field upon which to make your
26 decision, to inform your decision as to repair or

1 replace. Would you agree with that?

2 A. No, not necessarily.

3 Q. Okay. What does it mean to evaluate mean and
4 maximum asset life expectancy from other data sources?

5 A. Our team was looking to leverage our knowledge
6 based on industry experts and peer utilities to attempt
7 to define what the mean and max expected life were for a
8 given asset. In order for us to start planning long-term
9 replacements both to understand the amount of work that
10 was in the long-term planning horizon and also identify
11 any asymmetry of the condition of our asset base would
12 necessitate pulling forward more work to proactively
13 replace assets that were still healthy in condition but
14 would allow us to avoid a point in time where we had more
15 work to do than we have clearances or qualified
16 resources.

17 Q. Now, when you used the term leverage, you mean
18 to use that information; correct?

19 A. Correct.

20 Q. So you're going out and looking at other --
21 getting information from other experts in the field to
22 determine asset life expectancy; correct?

23 A. That was the intent.

24 Q. Okay. Wasn't that exactly what was done in 2010
25 by Quanta?

26 A. Unfortunately, no.

1 Q. And the title of the Quanta project was the --
2 all of a sudden I'm forgetting. The Lifecycle -- the
3 Asset Lifecycle --

4 MS. DUPRE-TOKOS: Lifespan.

5 BY MR. NOEL:

6 Q. -- Lifespan Project. So Quanta provided a bunch
7 of that information.

8 Why are you now in '17 saying "In the future
9 we're going to go out and do it again"?

10 A. Because we could not rely on the information in
11 the Quanta study.

12 Q. So you didn't like the Quanta study? Studies?

13 A. It did not meet the objective of this bullet
14 point.

15 Q. Okay. How did the Quanta studies, which
16 analyzed data from 103 separate utilities around the
17 world as to asset lifespans, not meet that bullet point?

18 A. The Quanta study did not look at asset data from
19 those utilities but rather business practices from those
20 utilities. The only age information and corresponding
21 failure data that was used in that study was associated
22 with the subset of assets that failed in a two-year
23 period within PG&E and made some assumptions that made
24 the statistical analysis incorrect.

25 So it wasn't sufficient for us to justify
26 significant amounts of investments in the future, and we

1 needed to do additional analysis in order to build the
2 case for our regulators to be able to justify requesting
3 authorization to be able to make additional investments
4 in the infrastructure based on the results of that bullet
5 point at a later date.

6 Q. So you didn't feel that Quanta did a good enough
7 job?

8 A. We did not believe that Quanta's work was
9 sufficient for our needs.

10 I apologize. Off the record can I have a break
11 real quick?

12 MR. NOEL: Madam Foreperson.

13 GRAND JURY FOREPERSON: A short break.

14 BY MR. NOEL:

15 Q. Can I ask one follow-up question really quick
16 before we break?

17 A. Sure.

18 Q. Who is "we"?

19 A. We? Can you remind me.

20 Q. You said "We determined. We determined." Who's
21 the we?

22 A. My apologies. The collective "we" that I was
23 referencing would have been myself, my team members, and
24 my boss at the time.

25 Q. And that was Kevin Dasso?

26 A. That is correct.

1 MR. NOEL: Okay.

2 GRAND JURY FOREPERSON: Five minutes?

3 THE WITNESS: Thank you.

4 MR. NOEL: Admonish him.

5 Before we can let you leave here, we have --
6 Madam Foreperson has to read you an admonition.

7 GRAND JURY FOREPERSON: Mr. Gabbard, you are
8 admonished not to discuss or disclose at any time outside
9 of this jury room the questions that have been asked of
10 you or your answers until authorized by this grand jury
11 or the Court. A violation of these instructions on your
12 part may be the basis for a charge against you of
13 contempt of court. This does not preclude you from
14 discussing your legal rights with your own attorney.

15 Mr. Gabbard, what I have just said is a warning
16 not to discuss this case with anyone except the Court,
17 your lawyer, or the district attorney.

18 THE WITNESS: Understood.

19 GRAND JURY FOREPERSON: Okay. Thank you.

20 MR. NOEL: And do you want to take a short one
21 or -- it's almost a quarter to 3:00. Do you want to take
22 our afternoon break right now?

23 GRAND JURY FOREPERSON: Okay. Yes. Let's do
24 fifteen.

25 MR. NOEL: Let's do fifteen.

26 [Recess taken from

1 2:41 until 3:05 p.m.]

2 GRAND JURY FOREPERSON: All members of the grand
3 jury are ready to proceed.

4 Mr. Gabbard, you're still under oath.

5 THE WITNESS: Understood. Thank you.

6 **EXAMINATION CONTINUED**

7 BY MR. NOEL:

8 Q. All right. Let's move on to the long term.
9 Number one, the first category out here "Develop a
10 corrosion standard procedure for corrosion management of
11 new and existing foundations."

12 Did I read that correctly?

13 A. Yes.

14 Q. And then "Develop a structure prioritization
15 criteria and replacement program that includes risk,
16 asset type and performance, asset lifecycle, asset
17 obsolesce, operational flexibility, and optimum
18 replacement approach."

19 Did I read that correctly?

20 A. Yes.

21 Q. That's a mouthful.

22 First, what is a structure prioritization
23 criteria and replacement program?

24 A. So in essence that would be referencing -- my
25 read of this would be that's referencing back to the
26 approach for prioritizing wood structures fed into the

1 structure replacement plan.

2 Q. Okay. So how is this different than developing
3 an enhanced steel structure replacement plan?

4 A. I don't know that it is completely. My
5 assumption is that they coincide. I think it's more of a
6 broader articulation of where that evolves over time.

7 One of the core principals for asset management
8 is continues improvement. I have given feedback to my
9 team specific to this document about qualifying these
10 statements as if they start from scratch. It's really a
11 continuation of what's occurred over many years.

12 This is laying out that the future objective
13 that having a best-in-class asset management strategy
14 that touches on all of these areas, that we likely had
15 efforts underway in each one of those areas but to take
16 them further and continuously improve.

17 Q. Okay. So this is a document that was put
18 together by your team; correct?

19 A. Correct.

20 Q. Your department, your -- one of your main duties
21 is the development of the asset strategy. And sometimes
22 that is an investment strategy; correct?

23 A. The asset strategy and investment strategy would
24 probably be different.

25 Q. Okay. How so?

26 A. Asset strategy would inform the investment

1 strategy or investment strategy would take into
2 consideration things beyond my purview.

3 Q. Okay. And when you're talking about defining
4 terms, investment in this case means putting money into
5 your infrastructure; correct?

6 A. That is correct.

7 Q. And you're not taking money and investing in the
8 stock market or buying shares of SoCal Edison or anything
9 like that; right?

10 A. Correct.

11 Q. Investment is putting money into your own
12 infrastructure?

13 A. Are you referencing the use of my term of
14 "investment" in the last answer?

15 Q. Well, yeah, because we were talking about --
16 well, actually you're right. I skipped it, this up here
17 above the last line. And I forgot. We skipped it.

18 "Develop and facilitate an annualized five-year
19 investment plan."

20 That's the last of the short-term goals;
21 correct?

22 A. That's correct.

23 Q. And I'm sorry. Thank you for pointing that out
24 to me.

25 So again, we're talking investment is money
26 spent on infrastructure?

1 A. For the most part, yes, with the caveat that we
2 may inform some very small portion of our investment
3 plan, investments in tools, investments in processes,
4 things of that nature. But for the most part your
5 characterization is correct.

6 Q. Okay. And any investment plan is informed by
7 profit; correct?

8 A. No. Our investment plan is -- on our side is
9 informed by meeting the objectives established, I
10 believe, on the proceeding slide, meeting the safety
11 reliability and affordability for our customers.

12 Q. Well, the definition of the word "investment"
13 means to put money into something expecting future
14 profits; correct?

15 A. I don't know where you're getting that
16 definition from.

17 Q. You have an MBA; correct?

18 A. I do.

19 Q. That's -- basically we can pull up the
20 definition. Let's see.

21 A. Over here (indicating).

22 Q. And we're pulling up a document. Definition of
23 investment Merriam Webster dictionary. "The outlay of
24 money usually for income or profits; a capital outlay."

25 Investment Cambridge dictionary. "The act of
26 putting money or effort into something to make a profit

1 or achieve a result."

2 The business dictionary. "Money committed or
3 property acquired for future income."

4 Those are the def -- those are the accepted
5 definitions of the term investment; correct?

6 A. Those are the definitions that you're reading
7 off of this Word document, correct.

8 Q. Well, those are verbatim from multiple
9 dictionaries.

10 A. Understood.

11 Q. So are you telling me that PG&E's definition of
12 the word investment is different from the general
13 definition that everybody else uses?

14 A. No. I'm saying that -- actually, PG&E's
15 definition in this context actually aligns quite well
16 with the Cambridge definition that you just provided
17 which is investment of capital in order to achieve a
18 result.

19 Q. Okay. And that is generally profit?

20 A. I think it's important to understand that PG&E
21 is a regulated utility. Our profit is structured
22 differently based on a rate filing. Our investments and
23 infrastructure and the strategy implemented under my team
24 are intended to meet objectives that are separate from
25 financial processes.

26 Q. You're a regulated utility, but you're also an

1 investor-owned utility; correct?

2 A. That is correct.

3 Q. Investor being similar to the word investment
4 meaning people that are putting money in and expecting a
5 profit; correct?

6 A. In that context that is correct.

7 Q. How much profit has PG&E paid to its investors
8 over the last five years?

9 A. I don't know that number.

10 Q. Okay. I think the number that's been thrown out
11 in the federal courts is \$5.8 billion. Does that sound
12 about right?

13 A. I don't know.

14 Q. Now, there's also profit in terms of what the
15 employees make; correct? In terms of -- I guess they're
16 looking at me. I probably didn't ask that question very
17 well. Bonuses. What the rest of us would consider
18 bonuses.

19 A. Can you restate the question.

20 Q. Well, I'm probably asking it badly.

21 In your position with PG&E, do you get bonuses?

22 A. Yes.

23 Q. And what do you get bonuses for?

24 A. Performance.

25 Q. What type of performance?

26 A. Performance against goals.

1 Q. And what are those goals?

2 A. Meeting safety metrics, reliability metrics
3 among other performing metrics.

4 Q. Okay. Did you get a bonus in 2017?

5 A. I believe so.

6 Q. Okay. So how does -- how do you get a bonus
7 that is tied to safety metrics in a year in which PG&E
8 equipment caused fires all over the state?

9 A. Are you asking me what the basis for --

10 Q. Yeah, I'm asking.

11 A. -- our incentive program is?

12 Q. If your incentive program -- if you're telling
13 me the first metric, the first goal that you're looking
14 at is safety, how do you -- anybody at PG&E get a bonus
15 in 2017 after the Wine County fires, the Butte County
16 fires, the Nevada County fires, the Yuba County fires,
17 billions of dollars of property loss, lost lives?

18 And Sonoma County especially? How do you -- how
19 could you in any way -- how could the company in any way
20 claim to have achieved safety metrics in that and give
21 bonuses?

22 A. I was not a part of the decision to provide
23 bonuses and compensate our employees for 2017.

24 Q. How about 2018? Did you get bonuses in 2018?

25 A. No, we did not.

26 Q. So you're not part of the process in determining

1 whether or not safety metrics are met for bonuses, bonus
2 purposes, or incentive purposes; correct?

3 A. I'm not part of the decision process for whether
4 or not to issue bonuses to employees.

5 Q. Okay. But the fact that you did get a bonus
6 would indicate somebody made the decision that your
7 safety metrics were met?

8 A. That is correct. Those that pertain to the
9 bonus, yes.

10 Q. Right. That's a good question. What metrics
11 pertain or what safety metrics pertain to the bonus and
12 what don't?

13 A. I don't recall.

14 Q. All right. So develop -- going back to this
15 "Develop a structure prioritization criteria and
16 replacement program that includes risk, asset type and
17 performance, asset lifecycle, asset obsolesce,
18 operational flexibility, and optimum replacement
19 approach." So what type of risk are we talking about
20 here?

21 A. I read that as a general statement referencing
22 risk. And I did not write that statement so I don't know
23 exactly what was being referenced.

24 Q. Okay. Asset type and performance. Well, what
25 asset type? What are we talking about?

26 A. In this instance we're referencing steel

1 structures.

2 Q. Okay. And what kind of performance is being
3 measured here or being used as a measurement here?

4 A. I don't know.

5 Q. All right. And then the final one there
6 "Develop a system-wide asset risk in a visual and tabular
7 format."

8 Did I read that correctly?

9 A. Yes, you did.

10 Q. Can you explain that statement to us.

11 A. I cannot.

12 Q. Any idea what a system-wide asset risk is?

13 A. I do not know.

14 Q. Okay. So have you signed any type of
15 non-disclosure agreement or any other type of agreement
16 that puts restrictions on or prohibits your disclosure of
17 certain types of information?

18 A. I have signed NDAs before, yes.

19 Q. Okay. And do you have one with PG&E?

20 A. I do not know. I don't think so.

21 Q. Okay. All right. Let's see. I think -- let's
22 go through here real quick.

23 Asset based. Your steel structures in service
24 as of December 2016. Familiar with these tables?

25 A. Yes.

26 Q. All right. Next, we have the table showing the

1 age of your steel structures. So are you familiar with
2 this table? This page?

3 A. Yes. I've seen this page before.

4 Q. All right. So your oldest structures are
5 108 years old as of when this was written in 2017. And
6 the average age is 68 years.

7 What does it mean when it says "the mean life
8 expectancy is 65 years"?

9 A. I believe that is a quote from the 2010 Quanta
10 Technology study.

11 Q. Okay. What is a mean life expectancy?

12 A. We need to go to the Quanta study. They define
13 their terms.

14 Q. Okay. And then it quotes down here "Structures
15 age, data life expectancy is from a year 2010 Quanta
16 Technology study."

17 Did I read that correctly?

18 A. Yes, you did.

19 Q. Okay. Now, the oldest structures in your
20 system, according to this chart, green are all 115
21 structures; correct?

22 A. That is correct.

23 Q. And you said earlier you don't know the age or
24 when the Bay structures -- the Bay Waters structures or
25 the Delta Water structures or the Salt Pond structures
26 were built; correct?

1 A. I don't believe I said that, but that is
2 correct.

3 Q. Do you know?

4 A. I do not.

5 Q. So skipping ahead here there's a bullet point
6 there that says "Over six years 2011 to 2016 outage
7 history one tower failure." And then it goes on "In 2015
8 Tower 61/268 collapsed. Tower 61/267 also failed as a
9 result of 61/268 failing at Moss Landing Power Plant that
10 carried Moss Landing Metcalf Number One and Number 2
11 230kV lines."

12 Did I read that correct?

13 A. That is correct.

14 Q. So in this period, according to this document,
15 we've had one tower failure?

16 A. That's correct.

17 Q. So why wouldn't the 2012 five tower collapse on
18 the Caribou-Palermo line appear in that list?

19 A. I don't know.

20 Q. Again, this is a document that was submitted as
21 an exhibit to FERC in a federal regulatory proceedings;
22 correct?

23 A. It's a document that was submitted as part of a
24 data response to the CPUC in the process that feeds into
25 the FERC proceeding.

26 Q. Okay. Well, CPUC is one of your regulatory

1 agencies; correct?

2 A. That's correct.

3 Q. This statement is patently false; correct?

4 A. I would need to speak to Feven to understand the
5 context for which this data was pulled.

6 Q. Well, the data -- it's says very simple "Over
7 six years one tower failure." And it talks about the
8 Moss Landing Power Plant, the tower at Moss Landing.

9 We know that in 2012 five towers on the
10 Caribou-Palermo collapsed during a wind storm and a sixth
11 was damaged to the extent it had to be replaced. So why
12 aren't those on that list?

13 A. I don't know.

14 Q. So do you know anything about the Moss Landing
15 tower collapse?

16 A. I don't know much about it.

17 Q. Have you read anything on it?

18 A. I have a vague recollection of its occurrence.

19 Q. Okay. Have you read any of the root cause
20 analysis, the failure analysis that were put together?

21 A. I have not.

22 Q. Okay. So as a senior director in charge of the
23 organization that puts this out, ultimately you're
24 responsible for this document; correct?

25 A. For this PowerPoint?

26 Q. Well, this document that was used in the FERC

1 proceedings.

2 A. I oversee the engineer that is responsible for
3 developing this document.

4 Q. And then again we go down over six years out of
5 67 LC notifications 2011 to 2016 under MAT Code 70S.

6 Do you know what MAT Code 70S is?

7 A. Steel structure replacement.

8 Q. Steel structure replacement.

9 "Sixty-three have been identified based upon a
10 wide array of issues but not limited to anchor
11 replacement, conductor clearance, raise or stabilize
12 tower, foundation repair."

13 Did I read that correctly?

14 A. Yes, you did.

15 Q. So over the six years, according to this, you've
16 replaced 63 towers for those listed four reasons.

17 A. I don't know if that's correct.

18 Q. Okay. Well, I notice that it doesn't list any
19 towers being replaced, any steel towers being replaced
20 proactively because of age; is that correct?

21 A. That is an irrelevant statement for this section
22 of the presentation.

23 Q. Okay.

24 A. In this section that you're referencing the LC
25 notifications stands for "line corrective."

26 Q. Okay.

1 A. This is referencing notifications that were
2 created as a result of inspections of towers. Those were
3 the characterizations that were included in the
4 notification that was created. I do not know whether or
5 not those towers were repaired or replaced as a result of
6 those line corrective notifications.

7 I would also highlight on the previous answer I
8 provided I failed to recognize that the outage history
9 was referenced in the first bullet. That may be a
10 reason -- this is just something that I'm recognizing. I
11 don't know for sure. It may be a reason why this subset
12 of data is not the entire data set.

13 Q. Okay. So are you saying that possibly because
14 it says "outage," that maybe that's why only that one
15 tower falling down is represented?

16 A. Possibly.

17 Q. Okay. Well, if the evidence showed that the
18 Caribou-Palermo was out from December 21st until, I
19 believe, January 30th, that would be an outage; right?

20 A. I would assume that this would reference a
21 customer outage. Again, now I'm getting into
22 speculating, but I would recommend that to understand
23 what the basis for this data was to go to the author of
24 the information.

25 Q. So why does it make a difference that it's
26 customer outage?

1 A. Can you clarify your statement.

2 Q. You said that outage would be customer outage
3 and maybe that's why the Caribou-Palermo wouldn't fit in
4 there.

5 A. My statement is referencing the fact that I'm
6 reading both of these major bullets --

7 Q. Right.

8 A. -- which are characterizing different data
9 sources. And my answer is attempting to infer what data
10 source is used for the data that's being shown here.
11 It's an assumption. And it may or may not be correct.

12 Q. Okay. But why would it make any difference, not
13 just in this context or in any context, whether customers
14 were affected or not?

15 A. In certain contexts they wouldn't make a
16 difference.

17 Q. But in certain context it does; correct?

18 A. If you wanted to know the number of customers
19 impacted, it would matter whether or not there were
20 customers impacted, yes.

21 Q. Okay. And one of the reasons -- one of the
22 places where that makes a difference is in your
23 reliability metrics; correct?

24 A. Potentially, yes.

25 Q. Things like --

26 A. Only in the -- in a subset of reliability

1 metrics.

2 Q. Things like CAIDI and SAIFI have to do with
3 customer interactions. Or interruptions. I'm sorry.
4 Right?

5 A. That is correct.

6 Q. And so if the Moss Landing tower goes down,
7 that's going to affect your reliability metrics because a
8 lot of people are going to be without power for a period
9 of time; correct?

10 A. To clarify, that will impact a subset of
11 reliability metrics. We also have reliability metrics
12 for our transmission system. It would be called ACOD and
13 ACOF. And they're independent of the number of
14 distribution customers impacted.

15 Q. Right. The biggest ones are CAIDI, SAIFI,
16 and -- all of a sudden I'm forgetting the term.

17 Is that correct?

18 A. Can you define what you mean by "the biggest
19 ones."

20 Q. Well, those seem to be the most quoted, most
21 relied upon metrics that we've seen.

22 A. Those metrics are used by both transmission and
23 distribution utilities. ACOD and ACOF are only used for
24 transmission utilities and they're reported to the
25 California ISO.

26 Q. And CAIDI or SAIFI and whatever the other one

1 is, those are reported to FERC; correct?

2 A. Negative. Those are reported to the CPUC.

3 Q. Well, actually they're reported to the CPUC.

4 Okay. All right. And now we have down here
5 again Bay Waters inspections. So special category for
6 the Bay Waters towers; correct?

7 A. You mean a special bullet?

8 Q. Yes, special bullet.

9 A. Or separate bullet. Yes, there's a separate
10 bullet for the Bay Waters inspection of towers.

11 Q. And then at the very bottom there's actually a
12 footnote that appears to go to where we started here with
13 the tower collapses that says "During a 2017 windstorm
14 two structures collapsed in Tesla-Salado-Manteca 115Kv
15 line and a double dead-end structure has fallen in West
16 Sacramento-Brighton and Rio Oso-West Sacramento 115kV
17 line."

18 See that?

19 A. Yes.

20 Q. So those would be '17. So they're outside the
21 scope of the bullet point above.

22 All right. I'm going to skip to the end to get
23 to the good stuff. And here we are final page "Asset
24 one-page Summary T-line Strategy and PAS 55 Framework."

25 What is PAS 55 framework?

26 A. PAS 55 framework is an asset management

1 framework that's been developed by industry. I believe
2 it was specifically developed in Europe in order to
3 establish a common framework for asset management
4 principles. It has subsequently been superceded by ISO
5 55001 as a certifiable asset management framework.

6 Q. What do you mean by "asset management
7 framework"?

8 A. A framework that provides consistency and
9 guidance in common terminology for approaches to asset
10 management.

11 Q. Okay. So we have a little chart up here that
12 says "Risk identification, risk management, investment
13 planning, risk monitoring" back to "risk."

14 Basically, it's a circular diagram. Can you
15 explain that to us, please.

16 A. This was a visualization created by a member of
17 my team to characterize several components of overall
18 risk management.

19 Q. All right. So risk identification. It says
20 "Circuit risks, asset risks, asset component risks."

21 What's the difference between those items?

22 A. I don't know what was intended by those
23 different characterizations.

24 Q. And risk management programs, plans, policies,
25 standards. What is risk management? Can you explain
26 that to us.

1 A. Risk management is an approach to managing risk.

2 Q. Okay. How do you manage risk?

3 A. What risk are you referencing?

4 Q. It's your chart. It says "Risk management," and
5 you said it's how you manage risk. I'm asking you:

6 Okay. How do you manage risk?

7 A. There are a number of ways that we manage risk
8 within PG&E. I don't know what was being referenced in
9 this slide. I did not develop it.

10 Q. Okay. Down below it says "Program plans,
11 policies, standards, procedures, jobs, and tables."

12 So, for instance, would inspection and patrol be
13 considered risk management?

14 A. Can you say that one more time.

15 Q. Would, for instance, inspection and patrol be
16 considered risk management?

17 A. Yes.

18 Q. How are inspection and patrols risk management?

19 A. Inspection and patrols are considered controls
20 to decrease the likelihood of occurrence or the impact of
21 occurrence of an event.

22 Q. Okay. And so how do inspection of patrols do
23 that?

24 A. An example of an event that could cause risk
25 would be a conductor -- energized conductor coming to the
26 ground and being a safety risk for the public. A way for

1 an inspection to be a control to mitigate the likelihood
2 of that occurrence happening would be for regular
3 inspections to occur. Qualified field personnel may be
4 able to identify an issue before it turns into a failure.

5 Q. What would you consider qualified field
6 personnel?

7 A. Depends on the nature of the task.

8 Q. Well, we're talking about inspections and
9 patrols.

10 A. For line inspections I would assume that it
11 would be a journeyman lineman.

12 Q. Okay. Are you familiar with the ETPM?

13 A. At a very high level.

14 Q. What does that mean?

15 A. I know of its existence and its purpose. I also
16 know that there are other organizations responsible for
17 managing it and the content within. I am not very
18 intimately familiar with the content of the manual.

19 Q. How about the TOMP?

20 A. Can you tell me what you're referencing with
21 TOMP.

22 Q. Transmission Owners Maintenance Practices.
23 That's a mandated filing with CAL ISO and CPUC.

24 A. Yes, I'm familiar with that document.

25 Q. All right. And that document actually
26 defines -- those documents actually define what a

1 qualified company representative is to do inspections;
2 correct?

3 A. I do not know.

4 Q. Okay. So you used a good example; risk
5 management. The risk is wires on the ground. The way
6 you manage that is you would inspect it. You have
7 qualified persons go out there and inspect that and look
8 for any symptomology, any signs that would indicate the
9 danger of those wires going down; correct?

10 A. That is one control.

11 Q. Okay. So I know, you know, you're not a
12 transmission structure and conductor expert, but you are
13 an engineer. And using your example of the wires down as
14 being the risk, how important to managing that risk would
15 it be to be inspecting and monitoring the condition of
16 the things that hold that conductor to the tower?

17 A. I have not seen an assessment on the
18 effectiveness of our inspection program.

19 Q. Okay. But I'm just asking you. You said you
20 used conductors on the ground as being the risk and the
21 examples of how you would manage those risks. Wouldn't
22 it be extremely important to managing that risk of
23 conductor being on the ground to look at the attachment
24 points, the things that are holding that conductor in the
25 air?

26 A. I consider our inspection program to be an

1 important part of our --

2 Q. Just answer the question, please. You're an
3 engineer. You're a mechanical engineer; correct?

4 A. I am.

5 Q. You have a degree from a very, very good
6 university in mechanical engineering; correct?

7 A. That is correct.

8 Q. You used the example for risk management of the
9 risk being conductor on the ground and said you would
10 want to manage that risk by having qualified people do
11 inspections and identify potential problems and do
12 preventative maintenance; correct?

13 A. I said that is one control that we employ.

14 Q. Right. No. But I'm asking you how important to
15 that risk is it that you actually have somebody looking
16 at the attachment points, the actual things that are
17 holding that conductor in the air so it doesn't fall on
18 the ground.

19 A. I apologize. I may be missing something. My
20 previous answer was I believe inspections are important
21 to our Asset Management Program.

22 Q. Right. But you're in asset management and as
23 part of that you also control -- or at the time you
24 controlled risk management too; right? That was part of
25 your chain of command risk management.

26 A. The risk management team that I referenced --

1 Q. Yeah.

2 A. -- is a team to facilitate processes within our
3 organization. I would like to clarify. And this ties
4 back to the PAS 55 framework that you're referencing. I
5 consider asset and risk management to be synonymous.
6 Risk management is a component of an overall asset
7 management approach.

8 Q. Okay.

9 A. And as I previously stated, I do believe that
10 inspections are an important part of our Asset Management
11 Program.

12 MR. NOEL: Go ahead.

13 **EXAMINATION**

14 BY MS. DUPRE-TOKOS:

15 Q. Okay. Again, maybe I'm just not understanding
16 what you're saying. But you used the example of a risk
17 being a conductor on the ground; correct?

18 A. Correct.

19 Q. What we want to know -- and that you would want
20 to prevent that from happening by doing inspections;
21 correct?

22 A. Correct.

23 Q. Wouldn't it be an important part of the
24 inspection to make sure that the stuff that holds the
25 conductor up in the air and off the ground is checked?

26 A. Sorry. I misunderstood. So your question is:

1 Is it important to inspect the hardware holding up
2 a conductor when inspecting the conductor itself?

3 Q. I'm asking don't you think that would be
4 something that you would want to inspect?

5 A. Yes. I believe -- my expectation would be when
6 we inspect our infrastructure, we would inspect our
7 infrastructure, yes.

8 Q. And that infrastructure would include the
9 attachment points for the conductor?

10 A. As well as steel structures and the conductor
11 itself.

12 **EXAMINATION**

13 BY MR. NOEL:

14 Q. Well, and as the person in charge of the asset
15 management and the person who is reviewing all of this
16 field input, why was that not being done prior to
17 November 8, 2018?

18 A. I don't know what you're referencing.

19 Q. There was no inspections of the -- what's
20 referred to as cold-end attachment points prior to
21 November 8, 2018.

22 A. I'm not familiar with that statement.

23 Q. You're familiar with the WSIP; correct?

24 A. At a very high level, yes.

25 Q. Okay. Are you familiar with the Exponent
26 report?

1 A. What Exponent report are you referencing?

2 Q. The Exponent report that was done at the request
3 of PG&E and the CPUC reviewing the WSIP results.

4 A. I have not seen that report.

5 Q. Okay. Well, if I told you that those qualified
6 company representatives, those trained people, the guys
7 that are doing those inspections, the field level input
8 that you're talking about repeatedly state "We do not
9 look prior to --" I'm sorry. "Prior to November 8, 2018,
10 we did not look at cold-end attachments hardware," aka
11 C-hooks.

12 A. Did I miss the question?

13 Q. Okay. Maybe. Maybe I lost my train of thought.

14 You've been telling us all day going on to this
15 "We look at three things. We look at safety. We look at
16 reliability. We look at environment. And safety is
17 number one."

18 So one of the most basic safety equations in an
19 electrical transmission utility or electro transmission
20 system is a wire falling down; correct?

21 A. I don't understand.

22 Q. Well, if a wire falls down, wires -- energized
23 wires hurt people; correct?

24 A. Energized wires can hurt people, yes. That is a
25 safety concern.

26 Q. Exactly. That is supposed to be the number one

1 concern; safety. Those wires that are hanging up there
2 are supposed to stay hanging up there and not come down
3 where they can make contact with people.

4 A. That is correct.

5 Q. Those wires are also a huge fire risk; correct?

6 A. In some instances, yes.

7 Q. If an energized wire makes contact with other
8 things, whether they be trees or they be metal, fire is a
9 result -- direct result of that; correct?

10 A. Can be, yes.

11 Q. So you told us earlier safety is number one.

12 A. Correct.

13 Q. Environment is also big in there. So wires
14 falling down on the ground create two huge issues with
15 safety and environment; correct?

16 A. They can, yes.

17 Q. So prior to November 8th, 2018, why was there no
18 inspection program looking at the attachment points
19 designed to keep those wires attached to the towers and
20 not down on the ground?

21 A. I don't know if I referenced this earlier -- my
22 description of my responsibilities and experience -- but
23 I do not have any responsibility over inspection
24 programs. I'm not familiar with the details of them.

25 I will take your statements as accurate, but I'm
26 not familiar with the details of your references to what

1 was in or not in our inspection program.

2 Q. But when you talk about the data that informs
3 your asset management decisions, number one on that list
4 was the field input from those very inspectors; correct?

5 A. That is correct.

6 Q. And I asked you at that time are you familiar
7 with garbage in, garbage out. Remember that?

8 A. I do.

9 Q. So if the information that you're getting is
10 garbage, then any decision informed by that garbage is
11 garbage. Is that correct?

12 A. I previously answered that question. Our asset
13 management plans are improved with more quantity and
14 quality of notification data from the field.

15 Q. Notification data comes from failure; correct?

16 A. Notification data comes from findings from
17 inspections.

18 Q. But if inspectors aren't looking at things, how
19 can they have findings?

20 A. Our inspectors are looking at things. And we do
21 have notifications when they come back to my team and
22 they are discovered to our asset strategy.

23 Q. If your inspectors are not looking at the
24 cold-end attachment points, then they are not making
25 notification on cold-end attachment points. Therefore,
26 you don't have that information to inform your decision

1 on asset strategies for cold-end attachment points;
2 correct?

3 A. If your statements are correct, your conclusion
4 would be correct.

5 Q. Did you ever try to look up how many
6 notifications pre-November 8th, 2018, were generated
7 within PG&E by the inspectors -- and their name -- their
8 title is troubleshooters -- for cold-end attachment points?

9 A. I am not familiar with a categorization within
10 our notification process that references cold-end
11 attachment points. I believe the category would be
12 considered hardware. And we have numerous notifications
13 that come through that are categorized as hardware.

14 Q. There's lots of different parts of the towers
15 that could be categorized as hardware; correct?

16 A. That is correct.

17 Q. We're talking about cold-end attachment points,
18 the things that hold that conductor up in the air. There
19 is no category for that; correct?

20 A. There's no dedicated category that I'm aware of.

21 Q. And one of the huge results of the WSIP was worn
22 cold-end attachment points all throughout the PG&E
23 system; is that correct?

24 A. I'm not familiar with the details of the WSIP.

25 Q. Okay.

26 MS. DUPRE-TOKOS: May I ask a question?

1 MR. NOEL: Sure.

2 **EXAMINATION**

3 BY MS. DUPRE-TOKOS:

4 Q. So again, here I am confused. You said that the
5 inspections are valid. That was your response when Marc
6 said "Garbage in, garbage out." If you're getting
7 garbage in from the field, then you're using garbage to
8 make -- to inform your decisions. Therefore, your
9 decisions are also garbage. And you said the inspections
10 are valid; correct?

11 A. No, I did not.

12 Q. What did you say about the inspections?

13 A. I said if the inspection information is -- the
14 greater the quantity and quality, the better our plans
15 are based on being informed by that information.

16 I do want to clarify that field input is only
17 one component of the input to our asset management plan.

18 Q. Understood. What you just repeated was your
19 first answer to the first time Marc tried to ask you that
20 question when Marc just stood there about three minutes
21 ago and said "Garbage in/garbage out."

22 If you're getting garbage information from the
23 field because they're not doing inspections that include
24 the cold-end attachment points, then you are using
25 garbage to inform your decisions because you're
26 getting -- that's one of the elements you're using,

1 right, is the field data which we have; right?

2 A. Can you define garbage.

3 Q. Are you serious?

4 A. Yes, I am.

5 Q. Faulty data.

6 A. If we are getting faulty data, that would
7 adversely impact our asset management plans.

8 Q. And if you're getting faulty data, then -- and
9 using that to inform your decisions, then your decisions
10 may well be quite faulty, might they? Yes or no?

11 A. I just answered that question, I believe.

12 Q. And I just asked it again to clarify. Yes or
13 no?

14 A. Can you please restate the question.

15 MR. NOEL: Madam Reporter, could you re-read
16 that question.

17 [Record read.]

18 THE WITNESS: If she said they might be faulty,
19 the answer would be yes.

20 BY MS. DUPRE-TOKOS:

21 Q. Okay. Now, you also said basically that you
22 stand by the field data and the inspections. When Marc
23 called it garbage, you said that you -- essentially that
24 you stand by the inspections.

25 A. I did not say that.

26 Q. No. I'm paraphrasing.

1 Do you agree that the inspections are faulty?

2 A. I do not know if the inspection data is faulty.

3 Q. Okay. Because you sat here within the last
4 15 minutes and said -- when Marc called it garbage, you
5 essentially said it wasn't garbage.

6 A. I did not say that the inspection data was not
7 garbage. I said I'm not responsible for the inspection
8 program and I'm not familiar with the processes and the
9 quality of the inspections that are performed.

10 Q. Right. And after you said that, Marc said
11 "Garbage in/garbage out."

12 If the field data you're getting includes
13 garbage, then you're relying on garbage to inform your
14 decision. And you said that it's not garbage. The field
15 data is not garbage. The inspections are not garbage.

16 A. I don't remember saying that. Maybe we can go
17 back to the record and clarify what I did say.

18 MS. DUPRE-TOKOS: Sure. Why don't we take a
19 break. That will give Madam Court Reporter some time to
20 find it.

21 If we could maybe take a five-minute break.

22 MR. NOEL: Sure.

23 GRAND JURY FOREPERSON: Okay. Five minutes.

24 THE WITNESS: Thank you.

25 MR. NOEL: Oh, yeah. We have to give him the
26 admonition.

1 GRAND JURY FOREPERSON: Again?

2 MS. DUPRE-TOKOS: Yes.

3 MR. NOEL: Yep. Any time we're going to let him
4 out of our sight, and he's free to go out of our sight.

5 GRAND JURY FOREPERSON: I wasn't going to. I
6 was going to go with him.

7 THE WITNESS: I'm going to the restroom.

8 GRAND JURY FOREPERSON: Oh, okay, okay.

9 Okay. Mr. Gabbard, you are admonished not to
10 discuss or disclose at any time outside of this jury room
11 the questions that have been asked of you or your answers
12 until authorized by this grand jury or the Court. A
13 violation of these instructions on your part may be the
14 basis for a charge against you of contempt of court.
15 This does not preclude you from discussing your legal
16 rights with your own attorney.

17 Mr. Gabbard, what I have just said is a warning
18 not to discuss this case with anyone except the Court,
19 your lawyer, or the district attorney.

20 THE WITNESS: Understood.

21 GRAND JURY FOREPERSON: Okay. Thank you.

22 [Recess taken from
23 3:58 until 4:12 p.m.]

24 MS. DUPRE-TOKOS: Okay. Are we back on the
25 record?

26 Okay. So I believe Madam Court Reporter found

1 the section that we wanted read back.

2 So if you could read that back to us, Madam
3 Court Reporter.

4 COURT REPORTER: "QUESTION: And I asked you at
5 that time are you familiar with garbage in, garbage out.
6 Remember that?

7 "ANSWER: I do.

8 "QUESTION: So if the information that you're
9 getting is garbage, then any decision informed by that
10 garbage is garbage. Is that correct?

11 "ANSWER: I previously answered that question.
12 Our asset management plans are improved with more
13 quantity and quality of notification data from the field.

14 "QUESTION: Notification data comes from
15 failure; correct?

16 "ANSWER: Notification data comes from findings
17 from inspections.

18 "QUESTION: But if inspectors aren't looking at
19 things, how can they have findings?

20 "ANSWER: Our inspectors are looking at things.
21 And we do have notifications when they come back to my
22 team and they are discovered to our asset strategy."

23 BY MS. DUPRE-TOKOS:

24 Q. So, Mr. Gabbard, we already talked about if the
25 inspection data is garbage and you're using garbage to
26 inform your decisions, then your decisions might be

1 garbage. And you agreed with me?

2 A. Yes.

3 Q. Now, you say that the inspectors are finding
4 things. We just heard that; right? But they're not
5 looking at cold-end attachment points; correct?

6 A. I don't know.

7 Q. Okay. What do you base your claim that the
8 inspectors are looking at things on?

9 A. My statement is based on the fact that I've been
10 informed that we have inspections that are being
11 completed and my team has seen notifications written that
12 are pulled out of our systems of record that have details
13 associated with the findings from those inspections.

14 Q. Okay. How do you know they're valid?

15 A. I don't.

16 Q. Okay. So you're assuming they're valid?

17 A. Correct.

18 Q. So you're assuming that the data you're getting
19 is good?

20 A. Yes. I put trust in other organizations within
21 PG&E in order to perform my responsibilities, yes.

22 Q. Okay. But you're not responsible for the
23 inspections; correct?

24 A. That is correct.

25 Q. So you really have absolutely no idea, in fact,
26 if the inspections are any good, do you?

A. I cannot guarantee that, no.

Q. You have no personal knowledge as to whether or not these inspections are any good, do you?

A. I do not.

MS. DUPRE-TOKOS: Okay. Do you want to ask your question now.

EXAMINATION

BY MR. NOEL:

Q. And those that you're making decisions on, for instance, the five-year plan, based upon data that you assume is valid?

A. In some instances, yes.

Q. Right. So I want to talk about it in a different way. You were with PG&E in 2010; correct?

A. Yes, I was.

Q. In 2010 a gas pipe blew up in San Bruno;
correct?

A. Yes.

Q. You weren't in the gas department?

A. No, I was not.

Q. Were any of the lessons of San Bruno transmitted to the electrical side?

A. I would say that the lessons in overall operation that pertain to electric -- sorry. Let me restate.

I am familiar with some lessons learned that

1 have been shared with the electric business that have
2 changed the way we perform business.

3 Q. Okay. And there was a big trial in federal
4 court in which PG&E was convicted of multiple felonies
5 for the issues that resulted in the San Bruno explosion;
6 correct?

7 A. Yes.

8 Q. And were -- on the electrical side did you look
9 at the evidence that came out in the federal court and
10 use that to better the way you were doing things?

11 A. I have personally not looked at all of the
12 evidence from the San Bruno proceeding.

13 Q. Okay.

14 A. Are you asking about have individuals within the
15 electric organization learned from the San Bruno?

16 Q. I'm talking specifically about you and your
17 position later in '17 as the director -- senior director
18 of transmission and asset management. Did you look at
19 any of the evidence that came out of San Bruno, use that
20 to inform, to educate changes in the Transmission Asset
21 Division in the way you did business?

22 A. I have not personally looked at the evidence
23 from the proceeding. I have received some of the
24 conclusions from external entities to change the way we
25 manage our business. And some of those show up even on
26 this slide with our move towards -- working toward

1 achieving -- getting PAS 55 and ISO 55001 certification
2 as a foundation for closing some of those gaps that were
3 identified.

4 Q. Okay. Is that going to close gaps in terms of
5 falsified inspection reports?

6 A. Falsified inspection reports are not associated
7 with my asset management organization so I can't speak to
8 how those will change PG&E's inspection processes as
9 they're not within my purview.

10 Q. Okay. But you're making decisions in asset
11 management based upon those inspection reports at least
12 in part; correct?

13 A. That is correct.

14 Q. And one of the big things that came out of San
15 Bruno was evidence that inspection reports were being
16 falsified; correct?

17 A. Correct.

18 Q. And another thing that came out of San Bruno
19 were the fact that the process of inspections were being
20 done for economic efficiency as opposed to safety,
21 reliability, and environment; correct?

22 A. I'm not familiar.

23 Q. Okay. Basically, that -- the gas transmission
24 division of PG&E was making inspection decisions based
25 upon the budget. So they were choosing the cheapest
26 possible inspection method.

1 Are you familiar with that?

2 A. I am not.

3 Q. Well, would that -- is that something that maybe
4 you could have and should have learned from on the
5 transmission side? On the electrical transmission side?

6 A. Are you asking if I should have learned from it
7 or the electric business should have learned from it?

8 Q. Both. Let's start with you.

9 A. So as I previously stated, I'm not responsible
10 for inspections. I would assume that any insight into
11 how to improve inspection programs would have been shared
12 across lines of business.

13 Q. You're not responsible for inspections, but
14 those inspections are a part in forming your decision as
15 to what investments you're going to make in the
16 transmission infrastructure over the next five years;
17 correct?

18 A. That is correct.

19 Q. So if you're not getting notified, if
20 notifications of tags are not being generated, you're not
21 finding out about problems. And that's going to affect
22 your ability to prevent problems in the future; correct?

23 A. It could, yes.

24 Q. And we talked about the Caribou-Palermo in terms
25 of your five-year plan. And as of 2018 the
26 Caribou-Palermo line other than -- we've already

1 discussed it, and we'll come back and discuss it later.
2 But other than regulatory required work, there was no
3 preventative maintenance work, no preventative
4 repair/replacement work scheduled on the Caribou-Palermo
5 despite the fact that it's one of the oldest lines in
6 your inventory; correct?

7 A. I believe what I stated earlier was that we had
8 a project planned for each section of that line and this
9 extended scope was under evaluation as part of the
10 implementation of those projects.

11 Q. Right. And we're going to talk about that
12 later. We're going to go into that in depth later on.
13 Those projects are sitting there in front of you when we
14 get to them.

15 All right. So just try and -- it's getting late
16 in the day. It's 4:25. We're going to have to call it a
17 day which means you're going to have to come back next
18 week. I'm sorry.

19 But just to try and end this, are you familiar
20 with the term siloing in business terms?

21 A. Like in terms of organizational siloing?

22 Q. Yes.

23 A. Yes.

24 Q. What does that term mean to you?

25 A. It means portions of an organization are
26 operating independent of each other.

1 Q. And is that true of gas and electric?

2 A. In some aspects, yes.

3 Q. For instance, San Bruno?

4 A. I cannot -- I do not know.

5 Q. Well, that was a big event. That was a big
6 explosion. It destroyed a lot of property. It killed
7 some people. But yet the lessons of San Bruno are not
8 being translated into the electric side; correct?

9 A. I cannot agree with that statement since I have
10 changed the operation within my work groups based on the
11 high level learnings of the San Bruno incident.

12 Q. What have you changed?

13 A. We have increased a greater focus on records
14 management as an asset itself. We've also moved
15 towards -- and I'm going to say this in a general term
16 because it is inclusive of many areas of focus which is a
17 move towards PAS 55, ISO 55001 framework which is a huge
18 learning and improvement that we saw coming out of the
19 horrible tragedy that is San Bruno on the gas side. And
20 we elected to proactively embark on that same journey to
21 learn from that event in the same way that gas had.

22 Q. But in the end the fatal flaw that caused the
23 San Bruno incident was an inspection method, an
24 inspection policy that valued economic efficiency over
25 safety and environment. And it doesn't sound like the
26 transmission side -- the electrical transmission side has

1 done anything to foreclose that possibility or to change
2 that on the electrical transmission side.

3 Is that correct?

4 A. I'm sorry. I can't say that I agree with that
5 statement. I heard something -- I'm going to
6 paraphrase -- that safety is not the number one priority.
7 And I can assure you that it is. It has been -- it was
8 preceding the San Bruno incident but even more so
9 following San Bruno has been the number one priority in
10 the way that we operate our business.

11 **EXAMINATION**

12 By MS. DUPRE-TOKOS:

13 Q. Okay. If that's the case in San Bruno, one of
14 the causes of that was falsified inspections. And yet
15 you're making decisions based on inspections on the
16 electrical side that you have no idea if they're true or
17 false. Isn't that right?

18 A. So I can't speak to the first half of your
19 statement. But, yes, I am making -- I am leveraging
20 inspection information to inform our decisions.

21 **EXAMINATION**

22 BY MR. NOEL:

23 Q. By "leveraging" you mean using?

24 A. Yes, Sir. I'm using the results of our
25 inspections in order to inform the decisions we are
26 making.

1 **EXAMINATION**

2 BY MS. DUPRE-TOKOS:

3 Q. And yet you've already admitted to us here in
4 court that you have no idea if those inspections are true
5 or false; correct?

6 A. I rely on others within PG&E in order to perform
7 my job, yes.

8 Q. You have no personal knowledge as to whether or
9 not those inspections are true or false, do you?

10 A. That is correct.

11 Q. And what have you done to find out if they're
12 true or false? Anything?

13 A. I have not -- I have not done anything to
14 understand our inspection processes within PG&E that's
15 outside of my responsibilities.

16 Q. You use inspections to inform your decisions;
17 correct?

18 A. That is correct.

19 Q. What have you done to insure that the
20 information that you're using to inform your decisions is
21 true and accurate?

22 A. I have not done anything to prove the accuracy
23 of our inspections.

24 MS. DUPRE-TOKOS: Okay. Thank you.

25 **EXAMINATION**

26 BY MR. NOEL:

1 Q. So we go back to your example when we were
2 talking about risk management and I asked you how -- if
3 inspections were in risk management and you brought up
4 the example of the conductors. Remember that?

5 A. Yes.

6 Q. So if you have no idea how the attachment points
7 are being inspected or if they're being inspected, how
8 can you rely upon that to make a decision as to a
9 five-year plan?

10 A. Can you ask that question one more time.

11 Q. Let me put it this way: Do you know how your
12 transmission towers, your structures and conductors are
13 inspected?

14 A. Generally, I have some familiarity with how they
15 are inspected.

16 Q. Okay. Please tell us.

17 A. We inspect our transmission structures by
18 multiple ways. We have leveraged LiDAR data to
19 understand field conditions around our assets. We have
20 also done aerial patrols to look for anomalies on our
21 system. We also have ground patrols where qualified
22 electric workers walk along our facilities or drive along
23 our facilities to look for any out-of-normal conditions.
24 We also have climbing inspections where linemen climb our
25 towers in order to look for any signs of degradation or
26 out-of-normal conditions.

1 Q. Okay. Well, let's start at the very beginning.
2 You left one out, by the way. Infrared.

3 A. Thank you. We also use -- we're piloting other
4 technologies as well.

5 Q. Okay. LiDar inspections are essentially, for
6 the most part, used for vegetation management; correct?

7 A. And for ground and conductor clearances.

8 Q. Okay. LiDAR inspections aren't going to look at
9 things like cold-end attachments points and corrosion.

10 [Deputy McDougal enters the
11 back of the courtroom.]

12 GRAND JURY FOREPERSON: Marc.

13 MR. NOEL: Are you teeing me up or something?
14 You want us to call it a day?

15 DEPUTY MCDUGAL: Yes.

16 MR. NOEL: Okay. Let me finish this question
17 and then we'll call it a day.

18 For the record, it is now after 4:30 on Friday,
19 and we've been informed by the Court that we're not going
20 to be able to go any longer today. And the bailiffs are
21 ready to escort us out.

22 [Deputy McDougal exits the
23 back of the courtroom.]

24 BY MR. NOEL:

25 Q. All right. So we were talking about LiDAR
26 inspections. And you said they're also used for

1 conductor-to-ground clearance. Then infrared are used to
2 look at hotspots on the conductor itself; correct?

3 A. That is correct.

4 Q. And then you said aerial patrols.

5 A. Correct.

6 Q. What is your understanding of the aerial
7 patrols?

8 A. My limited understanding as it stands today is
9 aerial patrols include a qualified lineman in a
10 helicopter flying along a line to look for anomalies. We
11 are --

12 Q. What are -- sorry.

13 A. We are piloting additional forms of aerial
14 inspections.

15 Q. Right. That's post-Camp Fire. I'm talking
16 about pre-Camp Fire.

17 A. Thank you for the clarification.

18 Q. Right.

19 So what type of anomalies do you think that your
20 inspectors are looking for out of a helicopter?

21 A. I'm not familiar with the inspection process or
22 what the linemen are looking for.

23 Q. You're talking about inspectors who are in a
24 helicopter flying 30 to 40 knots several hundred feet
25 above the line and essentially looking for gross and
26 obvious anomalies?

1 A. I don't know. I've never participated in an
2 aerial inspection.

3 Q. Okay. You talked about ground patrols. And
4 what is your definition of a ground -- ground patrol.
5 Ground inspection. What is your understanding of a
6 ground inspection?

7 A. My understanding of a ground inspection would
8 be, as I stated, a qualified electric worker walking
9 along our transmission infrastructure looking at our
10 infrastructure for any anomalies.

11 Q. All right. By "qualified electric worker" are
12 you talking about a qualified company representative or
13 QCR as defined in the ETPM?

14 A. I'm assuming it's a lineman. Actually, a
15 qualified electric worker is a defined term.

16 Q. True. But there's linemen and there's
17 troublemen. Do you understand the difference?

18 A. I do.

19 Q. Troublemen are the ones who are supposed to be
20 doing the inspections and patrols. Is that your
21 understanding?

22 A. I don't know the classifications for different
23 patrols.

24 Q. We talked about the ETPM, and the ETPM
25 specifically states that inspections and patrols are done
26 by qualified company representatives.

1 Is that your understanding?

2 A. I don't know.

3 Q. Okay. And then the last one you said are
4 climbing inspections. Other than the 500 lines, where
5 were climbing inspections being done?

6 A. I don't know.

7 Q. Were you aware that climbing inspections were
8 essentially eliminated for the non-500 lines in 1995?

9 A. I was not.

10 Q. So we're talking about those attachment points
11 and the things that are holding the conductor in the
12 structure, that are holding it up off of the ground. In
13 all of those patrol and inspection types that you just
14 talked about, how are those attachment points, in your
15 understanding, being inspected?

16 A. In infrared they would not be inspected.
17 Otherwise, there would have been a visual inspection.

18 Q. Right. LiDAR is not going to look at the
19 attachment points. Infrared is not going to look at
20 that.

21 If your troublemen, your people who are doing
22 the inspections are saying "We can't see those attachment
23 points from the helicopter and we can't see those
24 attachment points from the ground" so they're not being
25 inspected, so how are you making informed decisions as to
26 whether or not to repair or replace those items?

1 A. Can you clarify which decision you're
2 referencing.

3 Q. If there's no inspection taking place of the
4 attachment points, the cold-end attachment points, how
5 can you make an informed decision to repair or replace
6 the cold-end attachment points?

7 A. Based on what you're saying, if there was no
8 inspection of a component, then there would not be a
9 maintenance tag written for a component. Therefore, no
10 work would be performed on that component.

11 Q. So in essence, it's run to failure? It's "We
12 just leave it up there until it fails and then we repair
13 or replace."

14 A. Are you referencing hardware?

15 Q. I'm referencing the same thing we've been
16 referencing for the last hour; the cold-end attachment
17 points, the things that are holding the conductor to the
18 tower holding it up in the air.

19 A. Basically, you're saying there would be no
20 replacement solely for that cold-end attachment point
21 other than replacements that occurred with replacements
22 of insulators, replacements of structures, or
23 replacements of a conductor?

24 Q. So if at some point somebody took those --
25 the -- specifically the cold-end attachment points out of
26 the inspection and patrol checklist, somebody at some

1 point made a run-to-failure decision on those components;
2 correct?

3 A. If there was no inspection process for the
4 assets in the field?

5 Q. Right.

6 A. Then there wouldn't be a way to proactively
7 replace.

8 Q. Okay. And that -- if that was a decision that
9 was made by somebody within PG&E, then at that point PG&E
10 made a decision -- a conscious decision of run to failure
11 on those components; correct?

12 A. I don't know what the characterization of that
13 decision would be. That would be speculating at this
14 point.

15 Q. Well, if I told you that at one point there was
16 specific requirements to inspect the cold-end attachment
17 points, there was a checklist that listed those cold-end
18 attachment points for every inspection and patrol, and
19 that at some point somebody at PG&E took the cold-end
20 attachment points out of that checklist and if I were to
21 tell you that at some point in the past that the people
22 doing the inspections and patrols were specifically being
23 told to look at the cold-end attachment points and then
24 that was removed from the training and they were no
25 longer being trained to specifically look at those
26 points, that would indicate a conscious decision on PG&E

1 to ignore those components and run them to failure.

2 A. I apologize. I'm not familiar with any of this
3 background information you're providing.

4 Q. I'm asking your opinion. You do risk, all of
5 this. That decision -- let's just assume that decision
6 was made sometime prior to 1995. That doomed those parts
7 to run to failure; correct?

8 **EXAMINATION**

9 BY MS. DUPRE-TOKOS:

10 Q. Let me ask you. Assuming that what Marc has
11 said is true, would you agree that the only option left
12 is run to failure? If they're not being inspected so
13 there's never going to be any preemptive maintenance
14 done, that only leaves run to failure; correct?

15 A. I think I might have answered this already. So
16 let me try --

17 Q. Regardless of whether you did or not.

18 A. I know. Let me try again. If there was no
19 targeted maintenance for cold-end hardware other than
20 replacing with other components, there would be no other
21 mechanism for replacing that equipment.

22 Q. Other than run to failure?

23 A. I apologize for being hesitant to use the term
24 "run to failure" because it's used in many different
25 instances.

26 Q. But we talked about it earlier.

1 A. Run to failure is identifying degradation and
2 then writing a notification and creating some
3 replacement. So if you're saying there was just no
4 opportunity to replace other than with other components,
5 the answer would be yes.

6 Q. Okay. Then let me not use the phrase "run to
7 failure."

8 If it's not being inspected so there's not going
9 to be a tag so the only way it's ever going to get any
10 preventative maintenance is if some other component
11 nearby is being replaced and it gets noticed, that is the
12 only way anything is going to happen with this is if it
13 fails; correct?

14 A. Or it's replaced with the other component.

15 Q. I said that already.

16 A. Yes, that's correct.

17 MS. DUPRE-TOKOS: Thank you.

18 MR. NOEL: All right. It's now 4:45. I'm sure
19 that they're about to beat down the doors.

20 I'm sorry, Mr. Gabbard. We're going to have to
21 ask you to come back.

22 Madam Foreperson.

23 GRAND JURY FOREPERSON: Mr. Gabbard, you are
24 admonished not to discuss or disclose at any time outside
25 of this jury room the questions that have been asked of
26 you or your answers until authorized by this grand jury

1 or the Court. A violation of these instructions on your
2 part may be the basis for a charge against you of
3 contempt of court. This does not preclude you from
4 discussing your legal rights with your own attorney.

5 Mr. Gabbard, what I have just said is a warning
6 not to discuss this case with anyone except the Court,
7 your lawyer, or the district attorney.

8 THE WITNESS: Understood. Thank you.

9 GRAND JURY FOREPERSON: Thank you. Thank you
10 for your time today.

11 MR. NOEL: Hold on. We need -- you need to
12 order him back Tuesday, the 3rd.

13 GRAND JURY FOREPERSON: On Tuesday?

14 MR. NOEL: Yes, Ma'am.

15 GRAND JURY FOREPERSON: What time?

16 MR. NOEL: 8:30.

17 GRAND JURY FOREPERSON: Mr. Gabbard, can you
18 come back here on Tuesday at 8:30, please.

19 THE WITNESS: Do I have any discretion?

20 MS. DUPRE-TOKOS: No.

21 MR. NOEL: No.

22 THE WITNESS: I'm assuming no.

23 MS. DUPRE-TOKOS: That's why the "please" at the
24 end was a polite way of ordering.

25 THE WITNESS: I understand the order.

26 GRAND JURY FOREPERSON: Okay. Thank you.

1 MR. NOEL: And before we go off the record, I
2 forgot to do it earlier and that was moving the exhibits
3 from Luther Dow this morning into evidence.

4 GRAND JURY FOREPERSON: Okay. Thank you.

5 [Exhibits 1333 through 1341
6 received into evidence.]

7 [Matter adjourned at 4:45 p.m.]

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COURT REPORTER'S CERTIFICATE

This is to certify that I, Lisa McDermid Welch, a Certified Shorthand Reporter of the State of California, was present at the time and place the foregoing grand jury proceedings were had and taken in the within matter; and that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings; and afterwards caused my said shorthand writing to be transcribed into typewriting; and the foregoing pages, beginning at the top of Page 1 to and including Page 180 hereof, constitute a full, true, accurate, and complete record of the proceedings.

DATED: This 6th day of June, 2022.

[Lisa McDermid Welch](#)

LISA MCDERMID WELCH, CSR, RPR
CSR LICENSE NO. 10928

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IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA
IN AND FOR THE COUNTY OF BUTTE

IN RE:)
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CONFIDENTIAL GRAND JURY) BCSC-2019-GJ-001
PROCEEDINGS)
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REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS
TUESDAY, FEBRUARY 25, 2020
VOLUME 41
OROVILLE, BUTTE COUNTY, CALIFORNIA
ASHLEIGH BUTTON, CSR NO. 14013, OFFICIAL COURT REPORTER

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APPEARANCES:

FOR THE BUTTE COUNTY DISTRICT ATTORNEY'S OFFICE:

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I N D E X

WITNESSES:

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DAVID GABBARD

Examination by Mr. Noel

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(WITNESS #12)

Examination by Ms. Dupre-Tokos

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OROVILLE, BUTTE COUNTY, CALIFORNIA

FEBRUARY 25, 2020; 8:30 a.m.

(Confidential Special Grand Jury Hearing Proceedings)

[Confidential grand jury called into session at 8:42 a.m.
in Courtroom 9.]

[Grand jury role call omitted.]

[Discussions omitted.]

[Witness enters the courtroom.]

GRAND JURY FOREPERSON: Good morning, Mr. Gabbard.

THE WITNESS: Good morning.

GRAND JURY FOREPERSON: I'd just like to remind you
that you are still under oath. If you can have a seat,
please.

THE WITNESS: Okay, thank you.

GRAND JURY FOREPERSON: Thank you.

EXAMINATION

BY MR. NOEL:

Q. Good morning, Mr. Gabbard.

A. Good morning.

Q. So before we dig into the next thing, see if we
can kind of summarize where we were at on Friday.

1 Am I correct that your asset strategy is in part
2 or in some part informed by the patrol and inspection
3 data?

4 A. Yes.

5 Q. And that would be the LC notifications or tags,
6 the problems that are found with the -- with the assets?

7 A. Correct.

8 Q. All right. Would you agree that the method of
9 inspection or patrol could potentially affect the
10 generation of LC notifications or tags?

11 A. Yes.

12 Q. The more thorough an inspection or patrol is, the
13 more problems you would expect that it finds; is that
14 correct?

15 A. Yes.

16 Q. By the same token, the less thorough, the less
17 you would find?

18 A. Yes.

19 Q. All right. Specifically -- well, so the -- now,
20 how much of -- of the inspection and patrol program are
21 you familiar with?

22 A. I'm only familiar with the program at a very high
23 level.

24 Q. Are you aware that the main form of inspection or
25 patrol for 115 line is helicopter patrol?

26 A. I am not.

1 Q. Okay. Would you agree that if the patrols are
2 cursory that would potentially affect the information that
3 is getting to your level for determining asset
4 managements?

5 A. Yes.

6 Q. Okay. And so if, for instance, helicopter
7 patrols are the main source and helicopters are flying
8 over the lines a couple hundred feet above the line, 30 to
9 40 knots where, basically, all a troublemen or qualified
10 company representative is looking for is major issues,
11 things that -- obvious issues. Things not hanging.
12 Things hanging -- you know, they're broken off.

13 MS. DUPRE-TOKOS: A tree in the line.

14 BY MR. NOEL:

15 Q. -- a tree in the line. Those things are going to
16 affect your management decisions down the line?

17 A. Potentially, yes.

18 Q. Okay. All right. So -- and that would fit into
19 this category we're talking about. This little chart
20 right here of risk identification, correct?

21 A. Yes, that is correct.

22 Q. Okay. And if I am reading this chart right, risk
23 identification, then it goes to risk management, then
24 basically, it goes to planning, to monitoring and it's an
25 ongoing cycle?

26 A. That is correct.

1 Q. Okay. So if the information at the risk
2 management or risk identification level is questionable
3 that is going to affect the rest of the process?

4 A. Yes.

5 Q. And if the inspection procedure is designed not
6 to find issues, that's going to affect the quality of the
7 information that is coming to your level upon which you're
8 making decisions, correct?

9 A. Correct.

10 Q. All right. So let's get to the -- the last chart
11 here. And we have three columns: Low risk, medium risk,
12 high risk, and then we have six rows, life cycle,
13 strategies, create, utilize, maintain, renew and dispose.
14 Are you familiar with this chart?

15 A. I have seen the chart, I wasn't involved with
16 creating the chart.

17 Q. Okay. What is considered low risk?

18 A. I do not see a definition on this. Actually, I'm
19 not aware of the definition for low risk.

20 Q. Okay. Same with medium risk?

21 A. Correct.

22 Q. Same with high risk?

23 A. Correct.

24 Q. So on strategy here for low-risk items, the
25 strategy is run to failure. For medium risk is run to
26 failure and cause evaluation, and for high risk it's

1 condition based and cause evaluation.

2 Am I reading that correctly?

3 A. Yes.

4 Q. Now, we've heard in the past that insulators
5 would generally be considered a low-risk asset on a tower.
6 Are you familiar with that thought?

7 A. No, I am not.

8 Q. Okay. Well, I guess -- get to the -- so let's
9 look at what we are if we're low risk. So if it's low
10 risk, run to failure, low -- and I'm not sure what ENG
11 stands for, do you know?

12 A. Engineering controls.

13 Q. Ah, what does that mean?

14 A. An engineering control would be a control
15 designed into the process. So less reliant on human
16 intervention.

17 Q. Okay. And then utilize minimum patrol to
18 continuously assess risk. Maintaining. You're not doing
19 any maintenance. Renew. Only replacement, no repairs.
20 And dispose, leave and do not maintain. That's for the
21 low risk.

22 On the other end, high risk, condition based
23 evaluation. High engineering controls, extensive patrol
24 with more frequency, minimum required maintenance,
25 replace, repair, cost benefit and remove.

26 Did I read that correctly?

1 A. Yes, you did.

2 Q. All right. So did the categories of low risk,
3 medium risk and high risk apply to certain assets within
4 the transmission system?

5 A. I believe this was put in as a framework. In
6 terms of how I have seen low risk, medium risk and high
7 risk, just relative quantifications of risk applied to
8 assets, it would not be categorical. What I mean by that
9 is we would define risk per specific asset at a specific
10 location, based on the characteristic of that asset. It
11 wouldn't be all towers are a -- one risk and all
12 transformers are another. It would be a differentiation
13 within that asset base.

14 Q. Okay. So when you're talking about assets,
15 you're talking ant individual components, correct?
16 Individual structures, conductor?

17 A. That is correct.

18 Q. All right. But doesn't the same apply, at least
19 in practice, to transmission lines themselves?

20 A. I would also say within transmission lines
21 themselves, we -- in some instances, we will categorize
22 the risk across an entire line, or we will also
23 differentiate risk across sections of line even down to a
24 given span.

25 Q. Okay.

26 A. It should be one structure to the next.

1 Q. Right. But just in general, for instance, under
2 the high risk category, this would be all of the 500
3 lines, wouldn't it?

4 A. Not necessarily.

5 Q. So you don't have elevated inspection and patrol,
6 you don't have elevated preventative maintenance, elevated
7 high engineering controls, more maintenance for the 500
8 lines than anything else?

9 A. I'd say in general that we do.

10 Q. Right. And this would also apply to some of the
11 230 lines and some of the important 115 lines, correct?

12 A. Yes.

13 Q. So, for instance, you know, we talked a lot about
14 the transmission lines in the Bay area, those lines that
15 power millions of people that, you know, if they go out,
16 lots of people go without power. Those would all be high
17 risk transmission lines, correct?

18 A. I would say not say -- I would say incorrect.

19 Q. Okay.

20 A. You said "all" of those lines?

21 Q. Not all of those lines, but the most important of
22 them.

23 A. The highest risk would be high risk, yes.

24 Q. Right. And you put a lot more patrols and
25 extensive patrols into those lines. You're putting a lot
26 more into your condition base. You're putting a lot more

1 into repair and replace because of their importance,
2 correct?

3 A. I can't say yes to that.

4 Q. Okay.

5 A. We -- we put -- we invest across our system, and
6 I don't have the information to support or counter your
7 statement there.

8 Q. Okay. On the other end of the spectrum, wouldn't
9 this be the Caribou-Palermo line: Low risk. Minimal
10 patrols. Very little maintenance, only replacing things
11 that break and essentially run to failure?

12 A. I have not seen Caribou-Palermo characterized as
13 low risk.

14 Q. Okay. But don't all of these different rows fit
15 what we know about how the Caribou-Palermo has been
16 treated for the last 20 or 30 years?

17 A. All of those characteristics do not apply to
18 Caribou-Palermo.

19 Q. Okay. Which ones don't apply?

20 A. For example, the statement no repairs. We have
21 done numerous --

22 Q. Okay.

23 A. -- repairs on Caribou-Palermo over time.

24 Q. Okay. But only in response to failures, correct?

25 A. I -- I cannot speak to that.

26 MS. DUPRE-TOKOS: Marc?

1 [Whereupon, counsel conferred off the record.]

2 BY MR. NOEL:

3 Q. But most importantly, minimal patrols to
4 continuously assess risk. That's definitely the case with
5 the Caribou-Palermo, is it not?

6 A. I'm not familiar with the patrol and inspection
7 history for Caribou-Palermo.

8 Q. Well, if I told you that the main way of
9 patrolling the Caribou-Palermo is to fly over it in a
10 helicopter, a couple of hundred feet in the air, going 30
11 to 40 miles an hour, would that be consistent in your mind
12 with the minimal patrol?

13 A. Yes, that could be.

14 Q. Thank you. All right. So switch screens here.

15 All right. Next, you should have in front of
16 you, Exhibit 1254. And -- not really, because we are
17 going to get right on it. I am going to -- it should be
18 in order. Actually, it looks like they're not in order.
19 There it is.

20 MS. DUPRE-TOKOS: Was that 1254?

21 MR. NOEL: 1254.

22 BY MR. NOEL:

23 Q. Do you recognize Exhibit 1254?

24 A. Yes, I do.

25 Q. What is 1254?

26 A. 1254 is TD 8101, Transmission Line Overhead Asset

1 Management Plan.

2 [Exhibit No. 1254 was identified.]

3 BY MR. NOEL:

4 Q. Can you explain to us what this document is?

5 A. This document is -- is a summary of our
6 transmission line overhead asset management plan that was
7 developed in 2017, 2018. Formally approved and published
8 in December of 2018. It's the first iteration of a formal
9 document representative of similar information to the
10 previous PowerPoint presentation that we just reviewed.

11 This is a formal document that is published in
12 our technical information library, and it is based on
13 learnings that we have had from our gas business and
14 implemented in alignment with best practice as defined by
15 PAS 55 ISO 55001 certification.

16 Q. Okay. You said "lessons learned from the gas
17 side," what do you mean by that?

18 A. When our gas business first went through PAS 55
19 ISO 5501 certification and implemented a similar framework
20 in order to document the asset management plans across
21 their different asset families, so we leveraged that
22 framework in order to stand up a similar structure within
23 electric operations.

24 Q. Okay. And you're marked here as the document
25 owner. If you can explain to us with what that means?

26 A. In our asset management construct, we've defined

1 single owners for asset families. We have numerous asset
2 families for transmission line overhead. I have been
3 identified as the asset family owner for the asset classes
4 that fall within -- within that family, which includes
5 overhead conductor, transmission steel structures,
6 insulators, and other components on our overhead
7 transmission facilities.

8 Q. And you were involved in the creation of this
9 document?

10 A. Yes, I was.

11 Q. So, ultimately, you are the person responsible
12 for setting the policy and correctly managing those assets
13 or you were at this time?

14 A. I -- I was responsible for creating the document
15 and owning the maintenance and implementation of the
16 document with approval from my vice president at the time,
17 which was Kevin Dasso as you can see here.

18 Q. Yep. And that's what I was going to ask you, the
19 next person on your document approver is Kevin Dasso and
20 his position at the time was vice president?

21 A. Correct. Vice president of electric asset
22 management.

23 Q. And if you can kind of explain to us Mr. Dasso's
24 position to your knowledge?

25 A. At the time?

26 Q. Yes.

1 A. Mr. Dasso was vice president of electric asset
2 management. He was responsible for overseeing several
3 organizations within electric operations. Reported to
4 senior vice president of electric operations, who, at the
5 time, was Pat Hogan. He was responsible for overseeing my
6 area of the business, which is transmission asset
7 management. He's also responsible for overseeing one of
8 my peers over distribution asset management, and then had
9 a number of different support organizations including our
10 GIS team, geographic -- Geospatial Information System.
11 Our ATS team, Applied Technology Services organization
12 and, at varying points in time, other support
13 organizations.

14 Q. Now, one of the things, I think, came up several
15 times on Friday -- various questions. Did you have a peer
16 that oversaw the inspection and patrol of transmission
17 lines?

18 A. Yes.

19 Q. Who was that?

20 A. My peer that oversaw inspection and patrol of
21 transmission lines, at this point in time, would have been
22 Eric Back, and he was similar level and I consider to be a
23 peer within the organization, but he reported to a
24 separate vice president.

25 Q. Which vice president did he report to?

26 A. At this time that would have been Greg Lemler, if

1 I'm not mistaken.

2 Q. All right. Let's kind of go through this
3 document a little bit.

4 All right. First we skip ahead to what's page
5 six. I don't know what the page number is on the bottom.
6 Yeah, page 6 of 77, the introduction.

7 "This Transmission Line Overhead Asset Management
8 Plan (AMP), provides an overview of the transmission line
9 overhead asset risk, performance, costs and efforts to
10 mitigate those risks. This plan presents the asset
11 inventory, an assessment of condition, performance
12 measures and overview of key risks with associated
13 programs and initiatives to effectively mitigate them and
14 optimize infrastructure including replacements and
15 upgrades among others. This is a roadmap for achieving
16 the asset management strategy and delivering the long-term
17 objectives for this asset family. The plan is developed
18 with a five-year plus planning horizon to align with the
19 electric operations (EO) five-year financial outlook and
20 is annually updated."

21 Am I reading that correctly?

22 A. Yes, that is correct.

23 Q. So that's the goal of this document; is that
24 correct?

25 A. Yes.

26 Q. And then "This AMP is consistent with the

1 electric strategy asset" -- "Electric Strategic Asset
2 Management Plan, which is the guidance document for
3 developing electric operations AMPs. It supports the
4 eight other AMPs in this series."

5 What are the other AMPs?

6 A. I'm sorry. I can't cite those off the top of my
7 head.

8 Q. Okay.

9 A. They're the various asset families. They include
10 transmission underground, distribution overhead,
11 substation asset management plan. Operational assets.
12 Distribution network. And distribution underground. I
13 may have missed one or two.

14 Q. Okay. Basically, each kind of division of the
15 company -- of the electrical side of the company is
16 supposed to be given an asset management plan; is that
17 correct?

18 A. There's an asset management plan for each similar
19 grouping of assets within electric operations.

20 Q. Right.

21 A. Yes.

22 Q. All right. So then talks about risks. 33 risks.
23 Each risk contains the risk name, description, status.
24 Again, the P95 scenario (worst-case), drivers, control and
25 consequences. And I don't think we ever quite got clear
26 on what exactly is a P95 scenario?

1 A. So a P95 worst-case scenario would be -- what
2 we've called a reasonably probable worse-case scenario.
3 If you look at the probability of potential outcomes, it
4 normally follows some sort of distribution, most common
5 would be a normal distribution.

6 With norm distribution, you can have a very long
7 tail. So there could be an extremely low likelihood of a
8 very, very, very, very high consequence event. We didn't
9 want to define our risk associated with events based on
10 very, very long tailed distributions and, instead, used
11 benchmarked against industry practice to anchor what the
12 high end and high exposure is at the 95 percentile.
13 Meaning, this event -- anything below this scale of event,
14 would represent 95 percent of potential occurrences.

15 Q. Okay. As part of -- as part of the -- the P95
16 scenarios being run, would you use or could you use other
17 tools to simulate risk scenarios?

18 A. Yes.

19 Q. Okay. Are you familiar with Reax Engineering?

20 A. Yes, I am.

21 Q. Okay. What is Reax Engineering?

22 A. Reax Engineering is a company that we work with
23 in partnership with the CPUC and Cal Fire to develop
24 modeling around potential fire spread given ignition.

25 Q. Reax is a fire modeling engineering firm; is that
26 correct?

1 A. Correct.

2 Q. And their specialty is running fire models to
3 anticipate fire threats, correct?

4 A. That is correct.

5 Q. So when you're running these P95 scenarios, are
6 you using the Reax -- as part of the wildfire threat, are
7 you using the Reax fire modeling capabilities to -- to
8 establish and evaluate worst-case scenarios for different
9 fire scenarios?

10 A. I don't believe Reax was used in the
11 quantification associated with threat.

12 Q. All right. So moving down to 1.2 Performance.
13 "Transmission line overhead asset performance is primarily
14 tracked through safety and reliability metrics discussed
15 in Chapter 2;" is that correct?

16 A. Yes.

17 Q. And it goes on, "PG&E's key metrics to measure
18 transition line overhead reliability performances are
19 System Average Interruption Duration Index, SAIDI. System
20 Average Interruption Frequency Index, SIAFI; and Customer
21 Average Interruption Duration Index, CAIDI."

22 Is that -- am I reading that correctly?

23 A. Yes, you are.

24 Q. "These metrics are helpful in identifying areas
25 where system reliability performance can be improved.

26 Outage data is evaluated for root causes and contributing

1 factors that can provide insightful information regarding
2 asset condition."

3 Did I read that correctly?

4 A. Yes.

5 Q. So if I am reading that last sentence, outage
6 data is one of the factors that is used to evaluate asset
7 condition?

8 A. That is correct.

9 Q. Okay. And then it goes on, the next paragraph,
10 "Two other metrics used to measure transmission system
11 line reliability in the utility industry are the Average
12 Circuit Outage Frequency (ACOF), and the Average Circuit
13 Outage Duration (ACOD)."

14 Did I read that correct?

15 A. Yes, you did.

16 Q. Says, "These metrics are particularly helpful in
17 assessing transmission system reliability performance
18 since because the transmission system design, many outages
19 do not result in outages to end-use customers; however,
20 they impact flows on the system and they can affect energy
21 markets or energy delivery transactions."

22 Correct?

23 A. That is correct.

24 Q. Oops, forgot to advance the page. So am I
25 understanding this correct that ACOF and ACOD are used
26 because some lines don't have direct customer loads on

1 them?

2 A. That is correct, or alternate sources.

3 Q. Okay. And if a -- if a line does not have a
4 customer load or if -- if because of redundancies, an
5 outage on that line does not affect any customers that
6 would not show up on your SAIDI, SAIFI or CAIDI metrics?

7 A. That is correct.

8 Q. Then we skip ahead to 1.5. This is page nine.
9 Identification and Prioritization Across the Company.

10 And you see the Figure 2 there?

11 A. Yes, I do.

12 Q. This seems to be a -- kind of, a different
13 appearing, but similar same chart that we just looked at,
14 I think, in 1253; is that correct?

15 A. That is correct.

16 Q. Where risk identification, leads to risk
17 management, leads to investment optimization and
18 sustainability planning, which leads to risk monitoring,
19 correct?

20 A. That is correct.

21 Q. Okay. And your part of this would be the
22 investment optimization and sustainability planning; is
23 that correct?

24 A. My responsibilities, at the time, would likely
25 span all of these four phases in some way or another.

26 Q. Okay. Well, as we talked about, risk

1 identification, you need somebody to identify that there's
2 a risk out there, then it goes to risk management, but
3 when you were -- at the time in 2017 and '18, was risk
4 management part of your organization?

5 A. Yes, it was.

6 Q. Okay. And then investment optimization and
7 sustainability planning that's putting together, for
8 instance, a five-year plan, correct?

9 A. That is correct.

10 Q. And then ultimately monitoring the risk after
11 it's been identified and planned for?

12 A. Correct.

13 Q. And then we move on to the next page in Table 2.
14 And this is a familiar looking table also.

15 Do you recognize Table 2?

16 A. Yes, I do.

17 Q. This is very similar to the final chart that we
18 looked at on Exhibit 1253, correct?

19 A. That is correct.

20 Q. But there have been a few changes. In the column
21 of low risk, the strategy is now changed to "run to
22 maintenance;" is that correct?

23 A. That is correct.

24 Q. Can you explain to us how run to maintenance is
25 different than from -- from run to failure?

26 A. Run to maintenance is a clarification that we

1 made because run to failure was misinterpreted by -- or
2 used in different context by different stakeholders. So
3 run to maintenance means when we identify potential
4 degradation, taking action and as you can see by this
5 table, the bias is towards repairing any maintenance
6 condition.

7 Q. Right. Okay. Then the next one is -- next row
8 down is create, which is different from what it was in the
9 previous chart. But still low engineering controls for
10 the low risk assets, correct?

11 A. That is correct.

12 Q. Utilize for the low risk assets, low degree of
13 patrol with minimal frequency to continuously assess risk;
14 is that correct?

15 A. Correct.

16 Q. And then under maintain, corrective maintenance.

17 A. Correct.

18 Q. And you go over to -- I'm sorry?

19 A. That is correct.

20 Q. Okay. So then you go over the high risk side.
21 Strategy, preventative maintenance and cause evaluation,
22 correct?

23 A. Correct.

24 Q. High engineering controls, correct?

25 A. Correct.

26 Q. High degree of patrol more frequently, correct?

1 A. Yes.

2 Q. And finally, preventative maintenance, correct?

3 A. Correct.

4 Q. And then there's a new column faded down at the
5 bottom -- or rows added: Reactive replacement versus
6 proactive replacement.

7 Do you see that?

8 A. Sorry, I'm not following you. Where are we at?

9 Q. Right here.

10 A. Oh, yeah. Yes, I see that.

11 Q. Can you explain to us the difference between
12 reactive replacement and proactive replacement?

13 A. An example of reactive replacement would be
14 seeing signs of deterioration or some other input that
15 would warrant replacement. Proactive replacement would be
16 replacement while asset is performing well, and there are
17 no signs of deterioration.

18 Q. So to put into a lifecycle context, proactive
19 replacement would be replacing items before they reach
20 their life -- the end of their lifecycle -- their asset
21 lifecycle, correct?

22 A. Well before.

23 Q. And reactive replacement would be waiting until
24 they're at the end of their lifecycle, correct?

25 A. That would be waiting until they were further
26 along in their lifecycle.

1 Q. Okay. And then under low risk, most repairs.

2 Under medium: Some replacements, partial line
3 replacements, proactive replacements for high correlation
4 failure indicators related to condition, material and
5 location; is that correct?

6 A. Yes.

7 Q. And then high risk: Proactive replacement, most
8 replacements, full line replacements, develop contingency
9 plans.

10 So what's that you do under replacement for -- or
11 renew for -- for high risk?

12 A. Yes.

13 Q. Correct?

14 A. Yes.

15 Q. And then ultimately the last new row that's added
16 is dispose: Leave and patrol.

17 Is what it has for low risk, correct?

18 A. Correct.

19 Q. What does it mean to "leave and patrol"?

20 A. In some instances, we have idle facilities that
21 are not used, so we will leave them in place and patrol
22 them on a regular basis until we have a chance to remove
23 them from service.

24 Q. All right. Now, there's also a Table 3 below
25 that. Risk and replacement strategy per asset, correct?

26 A. That is correct.

1 Q. It says overhead conductor, the asset risk is
2 high to medium, and the replacement strategy is
3 preventative -- preventative maintenance for high risk,
4 run to maintenance for medium risk.

5 Am I reading that correctly?

6 A. Yes, you are.

7 Q. Steel structures are listed as high risk with a
8 replacement strategy of preventative maintenance, correct?

9 A. Correct.

10 Q. Insulators are listed as high to low.
11 Preventative maintenance for high risk, run to maintenance
12 for medium and low risk.

13 Did I read that correctly?

14 A. Yes.

15 Q. All right. Let's move on, next page. And this
16 is Figure 4. Process of Involving Multiple Stakeholders
17 For Identifying and Prioritizing Work.

18 Do you see that chart?

19 A. Yes, I do.

20 Q. Can you explain this chart to us?

21 A. Yes. In order to build out an executable work
22 plan, we identify the need to engage multiple stakeholders
23 so that work plan can ultimately be informed and
24 executable. That involves taking folks from asset
25 strategy, who are identifying new work that need to come
26 into the portfolio. Also engaged folks from the field to

1 understand what it would take to execute given the scope.
2 Meaning, are there certain permit requirements, clearance
3 requirements or other considerations that need to be
4 accounted for in the allocation of resources in the work
5 plan for that work?

6 It also includes engaging oversight personnel for
7 existing in-flight work to understanding any
8 interdependencies. Our ability to engage that cross
9 functional group of stakeholders in developing a
10 multi-year work plan allows us to make sure that when we
11 make commitments for when work is going to occur, what
12 resources are going be required associated with that work,
13 and the capital requirements for that work plan that we
14 can be higher confident that we're going to be able to
15 execute on that work plan.

16 Q. Can you define for us what a stakeholder is?

17 A. In -- in terms of my previous answer, it would be
18 various representatives from PG&E, different employees and
19 different workers that have different functions in our --
20 across our line of business.

21 Q. Okay. So like we talked about earlier, you had
22 a -- a colleague or a peer that was in charge of the
23 transmission system itself, correct?

24 A. That is correct.

25 Q. And there are other people that are in charge of
26 different -- various other departments that are involved

1 with electrical transmission, correct?

2 A. Correct.

3 Q. That's going to include the reliability people
4 and the regulatory liaisons. All those people would be
5 considered stakeholders when you're putting together a
6 transmission asset management plan, correct?

7 A. Potentially, yes.

8 Q. Okay. So see if I can summarize this:
9 Basically, if -- are we reading this right that this means
10 we all have to come together and work together to come up
11 with a consistent plan?

12 A. Yes.

13 Q. And to do so, we have to share information and
14 ideas?

15 A. That is correct.

16 Q. Okay. So you recollect now, I want to drop down
17 the page 18. Section 2.3.2. Asset Investigation By Age.
18 And there are some charts on here and tables. We have
19 Figure 8, and I apologize, these things are very difficult
20 to read. This is the form that we get them from -- get
21 them in from the company.

22 But starting off with Transmission Overhead Lines
23 and Conductors. "Per Table 10 below, the estimated
24 lifespan of a conductor can vary, primary depending on
25 location of the circuit."

26 Am I reading that correctly?

1 A. Yes.

2 Q. And then the next bullet, "Per Quanta study,
3 approximately 2,000 miles of PG&E conductor is greater
4 than 80 years old. This represents 11 percent of the
5 total conductor population."

6 Did I read that correctly?

7 A. Yes.

8 Q. Yeah, over and over in this document, especially
9 in this section of the document, the Quanta study is being
10 quoted, correct?

11 A. That is correct.

12 Q. "For transmission steel structures, maximum
13 lifespan for a steel structure varies by region and is
14 based upon the 2010 Quanta Technology study. Mean life
15 expectancy is 65 years."

16 Did I read that correctly?

17 A. Yes, you are.

18 Q. Then down below, "Per Quanta study, approximately
19 13 percent of 7,000 coastal steel structures have reached
20 end of expected life."

21 Did I read that correctly?

22 A. Yes, you are.

23 Q. So on Friday, we talked a little bit about the
24 Quanta study and why the recommendations in the Quanta
25 study were not ever acted on at PG&E, and you said that
26 you -- there was some disagreement with how the study was

1 performed?

2 A. So to clarify, I don't think we talked anything
3 about "acting upon the Quanta study," --

4 Q. Right.

5 A. But we did talk in general about my perspective
6 on the value associated with the Quanta study. I believe
7 it was in context to an admit of perspective initiative
8 that was identified in the previous PowerPoint.

9 Q. Okay.

10 A. That talked about defining maximum and it's --
11 and mean expected life. And my characterization was that
12 I didn't have high confidence in the Quanta study so we
13 intended to do additional benchmarking and collaboration
14 in the industry in order to come up with more robust
15 information.

16 Q. Okay. But you're quoting the Quanta study here,
17 correct?

18 A. That is correct.

19 Q. Let see -- and then we go onto insulator age.
20 This would be on page 21. And insulator age spread per
21 ETGIS.

22 Can you explain to us how to read this -- this
23 chart, Figure 12?

24 A. Sure. Figure 12 shows the -- sorry, hold on.
25 Figure 12 shows the count of insulators against the number
26 of years old the insulator is. Ranging from one to nine,

1 it also includes a bucket for 24 and unknown, and the Y
2 access is structured in a log-rhythmic scale in order to
3 fit the range onto this single chart.

4 Q. Okay. And where I don't understand is age down
5 here. Where it says one, two, three, four, five, six --
6 eight, nine, is -- does this literally mean one year old?
7 These insulators on this -- in this column are one-year
8 old?

9 A. That is correct.

10 Q. And then it goes all the way up to 24 years old,
11 and then the biggest column, which is unknown.

12 A. That is correct.

13 Q. Correct? So anything -- well, what does
14 "unknown" mean?

15 A. Unknown means we do not have -- we do not have
16 age data for those assets.

17 Q. Why not?

18 A. I -- I don't -- I'm not intimately familiar with
19 this -- the history of this data field. But my
20 assumption, based on looking at the data, is that we
21 historically did not track insulator age separate from
22 other assets and begun logging in our system record the
23 actual age of a specific insulator approximately a decade
24 ago.

25 Q. So, basically, if an insulator has been changed
26 out in the last nine years, you know the age of the

1 insulator, but if it's older than that, there's a good
2 chance you don't know how old the insulator is?

3 A. That is correct.

4 Q. Now, insulators are an important component to the
5 transmission overhead system, correct?

6 A. Yes, they are.

7 Q. And insulators like everything else have a
8 lifespan, correct?

9 A. That is correct.

10 Q. But by 2018, it looks like the majority of your
11 insulators you don't know have any age documentation on
12 them.

13 A. That is correct.

14 Q. So were you aware that there are 100 year old
15 insulators that are still hanging in towers?

16 A. I was not.

17 Q. Would that have been something that you would
18 have liked to have known when -- when it was your job to
19 develop the asset management strategies for your five-year
20 plan?

21 A. I would always like to have more information,
22 absolutely.

23 Q. All right. So let's skip ahead to page 22 and
24 Section 2.4, Asset Performance.

25 It says, "Transmission line overhead reliability
26 performance is helpful in identifying areas where system

1 reliability performance can be improved. Outage data is
2 evaluated for root causes and contributing factors that
3 can provide insightful information regarding asset
4 conditions. See the next four figures of combined
5 reliability results."

6 Did I read that correctly?

7 A. Yes, you did.

8 Q. So trying to understand this, it's talking about
9 reliability performance as a indicator of asset condition;
10 is that correct?

11 A. Yes, it is.

12 Q. And am I correct in assuming that better
13 reliability would indicate better condition?

14 A. Can you restate that question?

15 Q. Am I correct in concluding that -- or assuming
16 that the higher the reliability of an asset, the inferred
17 conclusion would be that that asset was in better
18 condition?

19 A. I would say in aggregate, better system
20 reliability would be a potential indicator of better
21 overall system condition.

22 Q. Okay. All right. Thank you. And then, again,
23 we have the -- on the following page 23. We have the
24 SAIDI, SAIFI, CAIDI and a new chart, the ten-year
25 transmission system outage frequency, basically tracking
26 the reliability, correct?

1 A. That is correct.

2 Q. And to summarize this section, it would seem that
3 the -- in saying that our reliability numbers are getting
4 better so, therefore, we know that our system is in pretty
5 good shape? In layman's terms, of course.

6 A. Yes, that is correct.

7 Q. All right. And then down at the bottom here, it
8 goes on and says, you know, "Transmission line overhead
9 asset performance is primarily tracked through two
10 factors, historical line outages and maintenance and
11 inspection found notifications. Historical outages are
12 evaluated based on asset-failure outages and can include
13 momentary as well as customer outages contributing" --
14 "customer outages contributing outages. Notifications can
15 include both line corrective and line nomination actions
16 found by PG&E personnel."

17 Did I read that correctly?

18 A. Yes, you did.

19 Q. Basically when you're evaluating a transmission
20 line, you're looking at outages and notifications?

21 A. That is correct.

22 Q. And if an inspection program is designed to not
23 find problems, you're not going to have notifications,
24 correct?

25 A. That is correct.

26 Q. And if you're -- if you're -- if a transmission

1 line doesn't have a customer load on it, it's not going to
2 show up in your CAIDI, SAIDI, SAIFI metrics, correct?

3 A. That is correct. It would show up in Figure 16
4 and 17.

5 Q. Exactly. All right. I want to skip ahead here
6 to 25 -- page 25 and the Table is 11. And we -- we have
7 here, "Current state: Conductor or connector/hardware
8 failures account for 27 percent of all wire-down events."

9 Do I read that correctly?

10 A. Yes, you do.

11 Q. And then Table 11. We have different types of
12 wire-down events or at least their causes. The left
13 column is the equipment failure type, and then the column
14 for 2013, 2014, 2015, 2016, 2017, and then a total column,
15 correct?

16 A. That is correct.

17 Q. So in -- we have connector/hardware failures
18 accounting for a total of 26 over the four-year period --
19 five-year period -- I'm sorry -- correct?

20 A. That is correct.

21 Q. Connector failures accounting for 44 of the
22 wire-down events, correct?

23 A. Correct.

24 Q. And then we have insulators. That's a total of
25 eight over the course of this five years, accounting for
26 eight of the wire-down events, correct?

1 A. Yes.

2 Q. And then structures -- some type of structure
3 failure accounting for 25 of the wire-down events,
4 correct?

5 A. Yes.

6 Q. All right. I want to switch gears here real
7 quick.

8 MR. NOEL: We will take a break right after we do
9 this. It'll be a natural stopping point.

10 GRAND JURY FOREPERSON: Okay.

11 BY MR. NOEL:

12 Q. And I want to go to Exhibit 1351. It should
13 be -- I'm sorry, maybe I didn't put 1351 on there.

14 MR. NOEL: A new exhibit --

15 MS. DUPRE-TOKOS: Yes.

16 THE WITNESS: Here, it is.

17 BY MR. NOEL:

18 Q. Do you -- and it is very difficult to read.
19 Again, I'm sorry, this -- this is the form that we get it
20 and it may be easier to look at the big board. We have
21 the exhibit up on the big board where we can blow it up.

22 Do you recognize 1351?

23 A. I do not.

24 [Exhibit No. 1351 was identified.]

25 BY MR. NOEL:

26 Q. Okay. 1351 is a list of all fires started by

1 PG&E -- but all of a sudden, I dropped -- I forgot the
2 name. But basically, that PG&E equipment caused from 2014
3 through 2017. And of specific note, we were just talking
4 about in the 1254, the wire-down events, correct?

5 A. Correct.

6 Q. And hardware failures, and this document that was
7 provided by PG&E by a subpoena, it was also submitted by
8 PG&E to CPUC, as this is mandated reporting to the CPUC.
9 Am I correct with that?

10 A. Yes, you are.

11 Q. This was also filed in the United States Federal
12 Court of San Francisco as an attachment to a brief filed
13 with Judge Alsup in the federal proceedings. So this
14 outlines all of the fires caused by PG&E equipment from
15 2014 to 2017.

16 Going back where we were, we've got 70, by my
17 count, conductor failures as a result of
18 connector/hardware.

19 Am I -- am I adding that correctly?

20 A. Yes, you are.

21 Q. Okay. Now, according to that document, 1351,
22 during partially the same timeframe from 2014 to 2017,
23 there were 18 fires started by PG&E by -- by conductor
24 failures caused by equipment failures on transmission
25 towers between 2014 and 2017.

26 So my question is, based upon all of this

1 information, a fire from a conductor failure or wire-down
2 event is a high risk, well-known phenomenon, correct?

3 A. Correct.

4 Q. I mean, basically, all though the numbers don't
5 -- I mean, the years don't quite add up, if you take just
6 '14 and '15 on here, we have 12, 25, 40, looks like 49
7 connector/hardware conductor failure events 2014 to 2017.

8 Did I add that up correctly?

9 A. I don't know.

10 Q. Can you add them up for me, '14 through '17? The
11 top two rows, the connector/hardware failure and the
12 conductor failure.

13 A. Sure. 70 minus 21 from 2013 is 49.

14 Q. 49. Okay. 49 total events, 18 fires during that
15 period. So it sounds like, basically, there's a one in
16 three chance -- or a little less than a one in three
17 chance that a wire-down event is going result in a fire;
18 is that correct?

19 A. I don't know if that's correct. I would need to
20 see the -- in more details the data that you're
21 referencing from --

22 Q. Okay.

23 A. -- Exhibit 1351.

24 Q. Okay. We can -- we can take our break and you
25 can come back, and you can take a look at that 1351 if you
26 want and before we -- we go on. It's a good time for a

1 break.

2 GRAND JURY FOREPERSON: Okay.

3 Mr. Gabbard, you are admonished not to discuss or
4 disclose at any time outside of this jury room the
5 questions that have been asked of you or your answers
6 until authorized by this grand jury or the Court.

7 A violation of these instructions on your part
8 may be the basis for a charge against you of contempt of
9 court. This does not preclude you from discussing your
10 legal rights with your own attorney.

11 Mr. Gabbard, what I have just said is a warning
12 not to discuss this case with anyone except the Court,
13 your lawyer, or the district attorney.

14 Do you have any questions?

15 THE WITNESS: Understood.

16 GRAND JURY FOREPERSON: Okay. We will now take a
17 15-minute break.

18

19 [Recess taken at 9:54 a.m. until 10:19 a.m. whereupon the
20 grand jury comes to order in Courtroom 9.]

21

22 GRAND JURY FOREPERSON: All members of the grand jury
23 have returned from break, and we are ready to proceed.

24 [Witness enters the courtroom.]

25 GRAND JURY FOREPERSON: You're still under oath,
26 Mr. Gabbard.

1 THE WITNESS: Understood.

2 BY MR. NOEL:

3 Q. I am going to withdraw the last question and go
4 ahead.

5 I am going to skip onto page 27.

6 A. This is back to 1254?

7 Q. Yep, 1254. Going on the page 27. And we have a
8 chart here, Figure 21, Conductor Failures Per 100 Miles By
9 Voltage.

10 You see that?

11 A. Yes, I do.

12 Q. All right. And below it, you should transmission
13 steel structures, bullet point: Current State. Sub
14 point: Failure of steel structures appears to increase
15 with age; is that correct?

16 A. Yes.

17 Q. And then below that "Most of steel structure
18 failures occur due to earth movement, (landslides or
19 seismic activity), corrosion (structures within water),
20 and weather (heavy wind.)

21 Did I read that correctly?

22 A. Yes, you did.

23 Q. All right. And now to Figure 22 on page 28,
24 which is very, very difficult to read on the -- on the
25 screen. The age and cause -- age and cause of previously
26 failed structures, and then down below it, specifically,

1 it states, "Steel structure related notifications suggest
2 that ageing structures are more susceptible to needing
3 corrective maintenance work."

4 Did I read that correctly?

5 A. Yes.

6 Q. And in your experience, is that statement
7 correct?

8 A. As a general statement, yes.

9 Q. And that's based upon that statement steel
10 structure related notifications is based upon the
11 existing, at this time in 2017, 2018, patrol and
12 inspection generated notifications, correct?

13 A. Yes, that is correct.

14 Q. So if notifications were not being generated
15 because of the type of inspection or patrol that would
16 affect the validity of this statement, correct?

17 A. Potentially.

18 Q. And if -- if fewer notifications on ageing
19 structures are being generated than really exist, that
20 would further strengthen this statement, correct?

21 A. Can you say that one more time?

22 Q. I probably phrased it really bad.

23 If, as a result of the types of inspections or
24 patrols being done, fewer notifications are being
25 generated on ageing structures, that would indicate that
26 the reality of it would indicate -- would even further

1 strengthen this statement that ageing structures are more
2 susceptible to needing corrective maintenance work?

3 A. I would say with one qualification. If fewer
4 notifications were being written on ageing structures
5 only, and that data set was deflated, then that would
6 imply that this statement was understated.

7 Q. Thank you. You said that much better than I did,
8 and I tried.

9 All right. Let's skip ahead to page 33, and
10 Section 2.5 talks about the data sources. Currently
11 Available Condition Data.

12 "The availability of asset condition data varies
13 with the transmission line overhead asset family. Asset
14 related data is stored through SAP/ETGIS, and the
15 technical information library. Additional information
16 regarding asset data can be found in the information
17 management strategy AMP."

18 Did I read that correctly?

19 A. Yes, you did.

20 Q. And then it goes onto Table 15 and it talks about
21 the sources of information and it assigns a maturity
22 level, correct?

23 A. Correct.

24 Q. So for instance, under ETGIS, the desired data
25 fields would be geospatial information, asset age,
26 manufacturer, rating, configuration and type and it

1 assigns a maturity level of four, correct?

2 A. Correct.

3 Q. And then down below, all -- four is defined as
4 "All data collected in one place and data populated with
5 SAP/ETGIS with process for regular updates."

6 Did I read that correctly?

7 A. Yes, you did.

8 Q. And then for SAP, the designed data fields are
9 notification and the maturity level is, again, a four,
10 correct?

11 A. Correct.

12 Q. All right. So on ETGIS, for maturity level four,
13 all data is collected in one place, and that includes
14 asset age, manufacturer, rating, configuration and type.

15 So that would indicate that ETGIS has that
16 information for every asset in the system, correct?

17 A. I do not believe that is correct.

18 Q. Okay. How -- how should we interpret that?

19 A. My interpretation of this statement is that the
20 process for collecting and updating this type of
21 information is mature for ETGIS. It does not mean that it
22 has been mature for the last hundred years.

23 Q. Okay.

24 A. So if new information or updates to existing
25 information that -- those processes are more mature on
26 this spectrum.

1 Q. Okay. So this is the talking about prospective
2 that the ap -- that the data is being collected and being
3 put into one place?

4 A. Correct.

5 Q. Okay. So at this point in 2017, 2018, that
6 doesn't exist? There is no single place where you can go
7 to find all of that -- all of those data fields with
8 regard to every asset in the system?

9 A. So at this point in time, these data sources
10 would be the sources that would have all pieces of
11 information that are available in a single source. But
12 being that PG&E was a conglomerate of hundreds of
13 different utilities over time, some of these pieces of
14 information for subcomponents may not be available --

15 Q. Okay.

16 A. -- at present.

17 Q. Okay. So for instance, conductor on certain
18 transmission lines?

19 A. Potentially.

20 Q. Okay. But we have heard that essentially PG&E
21 doesn't know the make, model of the conduct on the
22 Caribou-Palermo line, specifically at tower number 27/222.
23 Were you aware of that?

24 A. I am not.

25 Q. Okay. Does that surprise you that the company
26 would have no data on something as important as a

1 conductor even after 70 years of owning that piece of
2 equipment?

3 A. It would surprise me if PG&E had no data. It
4 would not surprise me if PG&E had missing data.

5 Q. Okay. For instance -- give you the -- the
6 information that -- from requests for information on the
7 actual conductor that failed on 27/222. PG&E referred us
8 to an article in a engineering periodical from 1922,
9 because they had no other data with regard to that
10 conductor.

11 Does that surprise you?

12 A. No.

13 Q. As the person who is essentially in charge of
14 asset strategy in 2017 to 2018, would that kind of
15 information be important to you in generating a plan going
16 forward?

17 A. As I stated, I believe in an earlier answer,
18 additional information would be helpful in developing a
19 plan.

20 Q. Right. And what do you do when you don't have
21 that information?

22 A. When we don't have information?

23 Q. Right.

24 A. For a specific data field associated with an
25 asset, we would do a number of different things depending
26 on a data field or the asset. In some instances, we will

1 use, for example, age data associated with an adjacent
2 asset as a proxy for the age of the asset with the missing
3 data field.

4 Q. Okay.

5 A. Another example would be if we have a missing
6 data field, we may leverage an alternate data field to
7 inform our analysis.

8 Q. Is another term for that "assumed data"?

9 A. Sure.

10 Q. Okay. And then the last row on here, on Table
11 15, listed the 2010 Quanta study. Asset expected lifespan
12 and the maturity is listed as NA, not applicable or not
13 available?

14 A. Not available. Or, sorry, not applicable.

15 Q. All right. Really quick. The next section of
16 this is -- is risks, and I want to move onto page 34 and
17 Table 16. Electric Operations Risk Assessments.

18 Do you see that chart?

19 A. I do.

20 Q. And under enterprise risks the risk ID ENT1 is
21 listed as wildfire, correct?

22 A. Yes.

23 Q. Is there any significance to wildfire being
24 listed first?

25 A. I don't know.

26 Q. Let's move onto page 36, and the risk analysis

1 Section 3.2. And this states, "An analysis of applicable
2 risk assessment to transmission overhead line assets was
3 conducted by evaluating risk drivers and in consultation
4 with subject-matter experts."

5 The illustration on page 35 depicts the alignment
6 between risk assessment, drivers, control, corrective
7 actions with each asset family. Programs and investments
8 that are managed by the transmission overhead asset group
9 are explained in detail in Chapter 4, "Desired State."

10 Are you familiar with this analysis conducted by
11 evaluating risk drivers in consultation with
12 subject-matter experts?

13 A. Yes, I am.

14 Q. Can you explain to us, please?

15 A. This analysis was undertaken as part of our risk
16 management process. It may show up later in the document,
17 but the framework used for forming this analysis is often
18 called a bow-tie analysis. An analysis starts with
19 defining a risk event, and that's really defining what is
20 that event that we believe could have exposure from a
21 public safety reliability environmental standpoint, and
22 then quantifying the potential drivers for that event, and
23 the associated consequences for that event.

24 That framework also enables us to define various
25 controls that could mitigate both the likelihood of an
26 event occurring or the consequence associated with that

1 event occurring.

2 Q. Okay. And I think we will look -- take a look at
3 the couple of the bow-tie, I was going to ask you about
4 that anyway here in a second.

5 Let's skip onto page 41, Section 3.3. Risk
6 Drivers.

7 Now, can you briefly explain to us what is a risk
8 driver?

9 A. Would you like me to read the definition here?

10 Q. Sure.

11 A. "The risk driver is defined as a element, which
12 alone or in combination with other drivers has the
13 intrinsic potential to give rise to risk."

14 Q. So let's drop down to Table 20. Risk Drivers
15 related to transmission overhead. And in this case, ENT1
16 is -- the risk is wildfire.

17 Am I reading that correctly?

18 A. Yes, you are.

19 Q. And then the third column risk driver ID assigns
20 a name to each one of the individual risk drivers,
21 correct?

22 A. Yes.

23 Q. And then the far right column, the biggest column
24 is the potential associated risk drivers. I'm guessing
25 that the risk -- that means the events or the consequences
26 that give -- not consequences -- that give rise to the

1 risk itself, correct?

2 A. These would be the causes that would -- would
3 lead to the event itself.

4 Q. That was the word I have had looking for. I said
5 consequences. Thank you.

6 So the potential risk drivers, the potential
7 causes of wildfire would be vegetation, equipment failure
8 conductor, equipment failure connector/hardware, equipment
9 failure other, third-party contact, animal, fuse
10 operation, and then the final of unknown, correct?

11 A. That is correct.

12 Q. Each one of those is a potential cause --
13 identifying cause of wildfire?

14 A. Yes.

15 Q. And so how do you mitigate those risks?

16 A. Do you want me to go through all of the
17 mitigations that we have identified for each driver or
18 would you like just, say, a couple examples?

19 Q. Just a couple of examples are good.

20 A. Okay. An example for mitigating the likelihood
21 of vegetation coming in contact with our transmission
22 overhead facilities would be clearing our right-of-way of
23 vegetation, cutting down the dead or design -- dead,
24 diseased or dying trees could potentially reduce the --
25 that cause.

26 Another example for -- from an animal standpoint

1 would be insulating down guys so that raptors or large
2 birds don't have the ability to come into contact with the
3 energized facilities and a down guy that is tied to
4 ground.

5 Q. How about this: Are you familiar with what is
6 a -- a part known as a parallel groove connector?

7 A. I'm not sure.

8 Q. A parallel groove connector is a -- in this case,
9 a three-bolt connector is a type of a splice. It's a
10 mechanical method of joining two pieces of line together.

11 Does that make sense?

12 A. Yes, it does.

13 Q. At some point, prior to 2008, the commonly used
14 parallel prove connectors were determined to be a fire
15 hazard. That they were overheating. They were
16 malfunctioning because of age. And PG&E made a decision
17 to replace all of those parallel groove connectors on
18 trans -- both transmission and distribution.

19 Would that be considered a mitigation?

20 A. Yes, it would.

21 Q. And, specifically, that would be considered a
22 mitigation under the equipment failure connector hardware?

23 A. Yes, it would.

24 Q. Okay. And that's something that is being done to
25 prevent a known risk, that being fire?

26 A. Correct.

1 Q. Now -- no, let's go down to 44, and 3.4 Controls
2 to Mitigate Risks. And says, "For risk driving related to
3 transmission overhead line assets, PG&E has in place
4 several controls in the forms of programs and identified
5 mitigation opportunities."

6 Those are some of the things that we have talked
7 about before, correct? Is that correct?

8 A. Yes.

9 Q. All right. "These controls such as an
10 inspect" -- "such as inspection and maintenance, for
11 example, are critical in addressing the risk drivers and
12 eliminating or reducing the impact of risk consequences."

13 A. That is correct.

14 Q. Read that correctly? So --

15 A. Correct.

16 Q. -- if I am understanding that correctly,
17 inspection and maintenance are two important mitigations
18 to the risks -- to mitigate the risks on the transmission
19 lines?

20 A. That is correct.

21 Q. So I forgot to open it, sorry. So -- I lost my
22 train of thought.

23 MS. DUPRE-TOKOS: Inspection and maintenance.

24 BY MR. NOEL:

25 Q. So inspections themselves would play a large part
26 in mitigating fire risk?

1 A. Yes.

2 Q. And then we go to Table 23, which is overall
3 control status key and it gives us basically four types.
4 If I am reading this right, the color to the left of each
5 control status defines where -- where it's used in the
6 charts to come; is that right?

7 A. Yes, that is correct.

8 Q. So if the color in the -- in the control status
9 is black that means analysis is in progress, status is
10 unknown or under evaluation. All the way down to if it is
11 blank, no color, controls are being strengthened, further
12 risk reduction recommended?

13 A. Yes, except I don't believe that is blank. I
14 think that is an amber color.

15 Q. Oh, okay.

16 A. I could be mistaken, but I these are varying
17 levels of color --

18 Q. Right.

19 A. -- and then black for --

20 Q. Right. And, again, we talked about it, we talked
21 about it at break with regard to 1351, these documents
22 have gone through reformatting, reformatting as they've
23 passed through different hands and some of them are, you
24 know, barely legible. And don't maintain their -- their
25 original status. So it's hard to tell the colors, but we
26 go from dark to essentially no color on this -- the way

1 this black and white chart is laid out; is that correct?

2 A. Yes, it is.

3 Q. So that goes to the -- to the next -- the chart
4 that begins on table -- on Table 24 that begins on page
5 45, correct?

6 A. That is correct.

7 Q. And the first one -- the first risk assessment is
8 ENT1, the wildfire, correct?

9 A. Correct.

10 Q. And as far as control strengths for all of the
11 mitigation stuff, it states "unavailable;" is that
12 correct?

13 A. That is correct.

14 Q. What does that mean?

15 A. Per the asterisk, it says, "Unavailable control
16 strength measure not developed at the time of risk
17 assessment." I'm speaking off recollection, so I may be
18 mistaken, but I believe this was the first iteration of
19 reflecting these controls with the associated control ID
20 and, at this point in time, those -- the effectiveness of
21 those controls as defined in this context was under
22 review. Previous iterations of these controls had been
23 assessed in alternate formats with different definitions.
24 So unavailable was used until such time as those control
25 assessments were complete.

26 Q. Okay, Thank you. All right. We have a long

1 table here. Let's skip ahead to page 53. Specifically,
2 Section 4, Desired State, Asset Objectives, Programs, and
3 Risk Mitigations.

4 Have you found that?

5 A. Yes.

6 Q. And that's -- Section 4 begins, "The long-term
7 vision for the transmission line overhead asset family is
8 to improve the overall safety and reliability of the
9 assets through a combination of asset condition
10 understanding, infrastructure improvements and promotion
11 of a culture that focuses on the long-term safety and
12 reliability of the assets."

13 Did I read that correctly?

14 A. Yes, you did.

15 Q. And it goes on to say, "The transmission line
16 overhead asset family's strategic objectives are developed
17 to optimize asset lifecycle by maintaining and improving
18 asset condition and adequately mitigating risks."

19 Did I read that correctly?

20 A. Yes, you did.

21 Q. So it says, "Optimizing asset lifecycle by
22 maintaining and improving," that goes back to where we
23 started. That -- that was the heart of your job in asset
24 management, correct?

25 A. Yes, it is.

26 Q. And, again, a lot of that is dependent upon the

1 information that you are getting from other departments?

2 A. That is correct.

3 Q. For instance, inspection and patrol records and
4 specifically LC notifications generated by inspections and
5 patrols?

6 A. Correct.

7 Q. And so if those inspection and patrol records of
8 those LC notifications aren't being generated because of
9 the types of inspections and patrols that is going to
10 affect your ability to improve the asset condition and
11 adequately mitigate those risks?

12 A. Potentially, yes.

13 Q. Okay. All right. Now, let's move onto page 57
14 and Table 36. We start off with -- well, Program
15 Summaries, Desires State, and Risk Addressed. And
16 focusing on the second one down here. The program, MWC 70
17 Transmission Line Structure Replacement.

18 Do you see that?

19 A. Yes, I do.

20 Q. Can you remind us what major work category 70 is?

21 A. Major work category 70 is a capital major work
22 category. We -- it's associated with replacement of
23 transmission line structures.

24 Q. And under scope/program description, it says,
25 "The transmission line structure replacement program
26 manages the asset lifecycle of structures and replaces

1 assets as needed based on risk, concentrating on those
2 with the highest risk first," correct?

3 A. Yes.

4 Q. So explain to us that statement, the -- the
5 basis for the description of the program?

6 A. The program replaces transmission lines
7 structures. That includes both steel structures and wood
8 pole structures. It is solely focused on replacement of
9 structures and it prioritizes the replacement of those
10 structures based on the risk associated with the given
11 structure.

12 Q. And risk is in part informed by the LC
13 notifications, correct?

14 A. Yes.

15 Q. So if LC notifications aren't being generated,
16 risk isn't going to be identified?

17 A. That is correct.

18 Q. Now, we go down to the bottom, the metrics --
19 again, "SAIDI, SAIFI, ACOD, ACOF, NOV, On-Time Completion
20 of LCs and SAP, asset failures, wire-downs, CPUC/OSHA
21 recordables, Transmission Fire Ignitions."

22 Those are the metrics upon which risk is based,
23 correct?

24 A. Yes, sir.

25 Q. Okay. And can you explain to us just briefly
26 what NOV are?

1 A. Notice of Violation.

2 Q. And that would be something that would be issued
3 by, say, CPUC or CAL ISO or NERC?

4 A. Correct.

5 Q. Okay.

6 A. Actually, let me clarify. An NOV would be issued
7 by the CPUC or NERC or -- or FERC.

8 Q. Okay.

9 A. Not California ISO.

10 Q. Okay. Thank you. Let's skip ahead to page 59.
11 And a similar chart. I think it's all the same table.
12 Yep, it's all Table 38. Table 38 goes on for pages. And
13 this time the program is Major Work Category 93,
14 Transmission Line Preventative Work.

15 Do you see that?

16 A. Yes.

17 Q. And, again, "The Line Preventative Work Program
18 supports repair or replacement of overhead conductors and
19 devices on transmission structures of transmission lines
20 operating at voltages from 60 kV to 500 kV," correct?

21 A. Yes.

22 Q. And the Desired State: "Eliminate public and
23 employee safety hazards from conductor or component
24 failures. Protect the environment from conductor or
25 component failures resulting in fires. Maintain 2nd
26 quartile T&D reliability performance, and NERC complaint."

1 Did I read that correctly?

2 A. Yes, you did.

3 Q. Can you explain for us what it means to maintain
4 second quartile T&D liability performance?

5 A. It means when looking at some of the measurements
6 below, including SAIDI, SAIFI, ACOD, and ACOF, in
7 comparing PG&E performance for those metrics against the
8 performance of other similarly situated utilities, you
9 break up the range of performance across those compared
10 utilities, we are targeting to be above the -- the median
11 of that distribution targeting second quartile, which
12 would be the 50 to 75 percentile across all other
13 utilities. First quartile would be represented by the
14 75th percentile to the 100th percent tile.

15 Q. Okay. So you're above average, but not the best?

16 A. That is correct.

17 Q. All right. And then the mitigations down here.
18 "Anti-climbing guards, avian protection, conductor
19 replacement, switch replacement, insulator replacement,
20 and NERC compliant," correct?

21 A. Yes.

22 Q. And, again, the metrics are the reliability
23 metrics, references also to the LCs and the CAP, which
24 would be based upon inspection and patrol, again, right?

25 A. Yes. And CAPs can include other input streams.

26 Q. Okay. And then onto -- ah, I guess Table 38 does

1 end right there and goes onto Table 39, which is, again,
2 Program Summaries. And focus on this major work category
3 BF, Transmission Line Patrol and Inspection.

4 You see that?

5 A. Yes, I do.

6 Q. And that includes BFQ, BFT and BFZ?

7 A. I believe it includes BFQ and then BFT through
8 BFZ.

9 Q. Okay. And are you familiar with what those
10 initials are for or represent?

11 A. Yes. I believe those represent specific MAT
12 codes, which it stands for Maintenance Activity Type. And
13 those are just subsets of the overall major work category.

14 Q. All right.

15 A. Specific to the specific components. Some of
16 which are listed in the mitigations, for example.

17 Q. Right. And so scope/program description: "The
18 transmission line patrol and inspection program includes
19 patrol and inspection of overhead facilities, inspecting
20 and testing of equipment, performing special patrols and
21 other work associated with maintenance."

22 Did I read that correctly?

23 A. Yes, you did.

24 Q. Again, as you pointed out, the metrics would be
25 the "On-Time LC notifications and CAP completion, the
26 NOVs, air patrol timeliness, ground inspection

1 timeliness," correct?

2 A. Correct.

3 Q. And the mitigation, "Bay water foundation
4 inspection, climbing inspections, ground patrols, overhead
5 infrared and air patrols," correct?

6 A. Correct.

7 Q. Now, are you aware of any climbing inspections
8 other than the 500 lines?

9 A. I am not specifically aware of any climbing
10 inspections.

11 Q. Okay. And, finally, I want to skip ahead to page
12 65 and Table 44. And the Areas For Continuous
13 Improvement.

14 Have you found that?

15 A. Yes.

16 Q. All right. Can you explain to us this chart
17 briefly? Not how to read this chart. For one thing it's
18 broken down between data and Session D. Can you start
19 with explaining what that is, the difference or
20 distinction is?

21 A. Okay. So to clarify, I think -- I can't tell if
22 this is a formatting issue or if it's a result of the
23 document issue you referenced earlier.

24 Q. Uh-huh.

25 A. But I believe the entire table is areas of
26 continuous improvement, and it is broken down into

1 subcategories that identify areas of continuous
2 improvement focused on either data or Session D process,
3 or asset management plans, personnel implications, risk
4 analysis or performance metrics.

5 These are different areas identified as
6 opportunities for us to continue to improve in these
7 categories in order to continue to bolster the
8 effectiveness of our overall asset management plans.

9 Q. All right. So a few of the -- of the areas.
10 First, "Develop a repository of asset failure analysis
11 (2019)."

12 Now, what would be a repository of asset failure
13 analysis?

14 A. I'm sorry, I don't recall off the top of my head.

15 Q. Okay. Now, when assets fail, does PG&E generally
16 do a failure analysis to figure out why that asset failed?

17 A. In some instances, yes, in others, no.

18 Q. Okay.

19 A. More so on the transmission side and in general,
20 those asset failures analysis are either performed by an
21 external consultant or our internal ATS department, which
22 is Applied Technology Services.

23 Q. So at this point, prior to the development of a
24 repository of asset failure analysis, is there any
25 centralized location where somebody could go to look for,
26 A, failure of certain parts; and B, an analysis of why

1 those parts failed?

2 A. I can't -- I can't answer that question.

3 Q. All right. Then, down here, "Develop a
4 centralized data management repository, which includes
5 data quality validation, proper warehousing, and an asset
6 inventory process utilizing maintenance and inspection
7 records (5-7 years.)"

8 Did I read that correctly?

9 A. Yes, you did.

10 Q. So data management repository, which includes
11 data quality validation. What does that mean?

12 A. It's referencing development of more rigorous
13 protocol to -- to define where documents are kept, what
14 the source of record is, what the quality of that data is,
15 any manipulations that occur to data before it's used.
16 Sort of a cataloging and inventorying of data within our
17 systems in order for us to continuously improve the -- the
18 quantity and accuracy of our data sets.

19 Q. Okay. So as of 2017, 2018, PG&E had no such
20 repository and you were looking at the development of it 5
21 to 7 years out?

22 A. So I would not characterize this information that
23 way. This is a focus on perspective continuous
24 improvement to proceeding years including development of a
25 centralized inventory that is ETGIS, the Electric
26 Transmission Geospatial Information System, to aggregate

1 data as identified on the previous page of this document.

2 Q. Right.

3 A. This would be a continuation of some of those
4 improvement efforts to further mature our data management.

5 Q. Okay. But in part, that is based upon
6 maintenance and inspection records, correct?

7 A. In part, yes.

8 Q. So, again, the data management repository would
9 only be as good as the maintenance and inspection records
10 that is it based on?

11 A. That is correct.

12 Q. Okay. And then that goes also up there to the
13 very first one, which is "Continue improving visibility of
14 data quality issues to ensure data users understand the
15 quality of the data used for risk analyses, the downstream
16 effects of data quality, and the efforts underway to
17 address data quality issues."

18 Those two tie together, correct?

19 A. Yes, they do.

20 Q. And this first bullet point is basically a
21 complex way of saying make sure that the data we're
22 reliant on is correct or is reliable, correct?

23 A. So I think, actually, the first point is solely
24 intended to highlight where there is incorrect data to,
25 make sure that it is clear so that it is not incorrectly
26 used.

1 Q. Okay. And how do you do that if it's not that
2 the data isn't correct, it's just that the data isn't
3 being provided?

4 A. That would not fall under the first bullet point.

5 Q. Okay. Next bullet point, "Continue evaluating
6 mean and asset life expectancy from multiple data
7 sources."

8 Could you explain that for us?

9 A. Sure. That goes back to the previous discussion
10 we had about leveraging any industry data or data from our
11 peer utilities to understand what expected asset lifespans
12 are expected to be for different asset classes.
13 Unfortunately, there's limited literature and experience
14 quantifying those expected values, and they can range
15 significantly depending on a number of different factors.
16 So we had an intent to continue to focus on the -- in that
17 area to mature our understanding of the expected and range
18 of lifespans for different asset types.

19 Q. And then below that "Continue evaluating the
20 effectiveness of the design, maintenance and inspection
21 programs and make necessary recommendations for
22 improvements (annual.)"

23 Can you explain that to us?

24 A. Yeah. This ties back to the color coding
25 assessment that we previously referenced --

26 Q. Right.

1 A. -- associated with the effectiveness of giving
2 controls that tie back to our risk management framework
3 within our asset management plans. We work through our
4 support stakeholders in order to perform the effectiveness
5 of some of those controls on a regular basis to understand
6 where there are deficiencies and identify opportunities
7 for improvement.

8 Q. What is a transmission asset register?

9 A. Transmission asset register would be a database
10 that logs asset-related information. In this context,
11 it's specific to an -- PG&E developing an internal
12 repository for information that is equivalent to the
13 California ISO transmission registry. Today, we use the
14 CAISO register for line-rating information and other
15 asset-specific information. Our long-term plan includes
16 developing an internal database that is similar to CAISO,
17 but duplicative.

18 Q. And what are asset ratings?

19 A. Asset ratings are specific to the manufacturer
20 ratings defined for a given piece of equipment that define
21 the electrical characteristics that the asset can see and
22 still perform satisfactorily on.

23 So, for example, conductor rating would be the --
24 for example, the number of amps that can be carried along
25 a conductor without annealing or suboptimal performance.

26 Q. How would you validate those asset ratings?

1 A. In some instances we have those ratings collected
2 in our data bases. In others, we may need to refer to
3 engineering drawings, and then in some instances, we
4 actually do field verification to look at name plates on
5 pieces of equipment.

6 Q. Okay. How do you validate -- well, not even --
7 what happens when you don't have any type of asset
8 ratings?

9 A. So a different way, what happens if we are
10 missing an asset rating -- or a rating for an asset?

11 Q. Yes. Another way of saying it.

12 A. Okay. We will look for records to confirm the
13 rating for that component, or we may go back to the
14 manufacturer or I'm sure there's additional methods for
15 determining that rating. This is a bit outside of my --
16 my wheelhouse.

17 Q. Okay. And the ultimate question is, for
18 instance, if you have a 100-year old conductor where you
19 don't even know who manufactured the conductor, how are
20 you going to rate it and how are you going to validate it?

21 A. I'm -- I'm assuming the rating would be the CAISO
22 register, and that would be the data source that we would
23 leverage to quantify the rating for that facility.

24 Q. How would the CAISO have ratings for a 100-year
25 old conductor that PG&E doesn't have a rating for?

26 A. Sorry. So you're assuming that we don't have a

1 rating for a facility?

2 Q. Well, I'm -- I'm saying, you have the conductor
3 that is hanging in the Caribou-Palermo that is 100-years
4 old and when asked -- when PG&E was asked for information
5 -- manufacturer, specific information with regard to the
6 conductor, PG&E responded, "We don't know. We bought this
7 from Great Western Power, and the best we can do is cite
8 you to an article from an engineering publication from, I
9 think, 1922, that did an article on the long-distance
10 transmission line being built by Great Western Power." So
11 we know nothing about the conductor. How are we going to
12 rate it? How are we going to validate any ratings?

13 A. So knowing that the Caribou-Palermo line was in
14 operation under CAISO control, I'm confident that we have
15 a line rating for it -- for that facility.

16 Q. Okay.

17 A. That doesn't mean we knew of the manufacture or
18 the age of that facility.

19 Q. Okay. So you can rate it without knowing
20 manufacturer and manufacturer specs?

21 A. That is correct. All of these different data
22 fields are independent. In some instances, we will have
23 some pieces of data and not others. So it's really field
24 specific.

25 Q. So the ultimate question that this all leads up
26 to is, how is it that we have conductor hanging in

1 transmission lines conducting 115,000 kV -- 115kV that
2 PG&E essentially knows nothing about?

3 A. Can you at least split those statements in two so
4 that I can respond independently? Because the statement
5 that PG&E knows nothing about the infrastructure -- the
6 Caribou-Palermo infrastructure, I don't know that I can
7 say we know nothing about that infrastructure.

8 Q. Not the infrastructure, the conductor itself.
9 Like we've talked about, when asked for specific
10 information about the conductor on sections of the
11 Caribou-Palermo, specifically, tower 27/222 where the fire
12 started. The response from PG&E is, "We bought this from
13 Great Western Power, I think, in 1931. We don't know who
14 made the conductor, we don't know any of the specs for the
15 conductor. Here is a citation to a 1922 engineering
16 publication, an article about this, which identifies
17 the -- the possible manufacturers of the conductor as" --
18 I forget, it's like Oakland Iron Works or something.

19 How is it that PG&E is allowing a conductor that
20 is 100-years old that they have so little information on
21 to continue in use?

22 A. My perspective is that both PG&E and the
23 California ISO would have line-rating data associated with
24 that line and knowing the original manufacturer of -- of
25 that conduct would not -- did not impact the operational
26 considerations for that line.

1 Q. Okay. All right. Let's move back and let's go
2 on to some of the other documents and try to go through
3 quickly.

4 You should have in front of you, 1252, which is
5 an e-mail. Do you see that?

6 A. Yes, I do.

7 [Exhibit No. 1252 was identified.]

8 BY MR. NOEL:

9 Q. And this is a 6/15/17 e-mail from somebody named
10 Judy Lau, L-A-U. Can you tell who Judy Lau is or was?

11 A. Judy was an admin for one of the managers that
12 reported up to me.

13 Q. Okay. And then at the end, it says on "On behalf
14 of Gabbard, Dave, E-T." Is that correct?

15 A. Sorry, I'm not seeing that.

16 Q. It's at the end of the "from" line at the very
17 top. It says Judy Law -- Lau, Judy and then --

18 A. Oh, yes.

19 Q. And so this is an e-mail that you authorized?

20 A. This was a meeting request that she would have
21 sent out from my calendar --

22 Q. Okay.

23 A. -- for these participants.

24 Q. Okay. All right. And for whom was Ms. Lau the
25 administrator?

26 A. I do not recall at this time. She may have

1 supported Boris. She also supported Marco Rios. My
2 assumption is my admin who is showing on here as me. My
3 admin at the time, who is showing up here as an optional
4 attendee, Vangie Arcia, may have been on vacation so Judy
5 may have been backfilling.

6 Q. Okay. So let's go through required attendees:
7 First up is Boris Andino.

8 A. Boris Andino was and is the manager of
9 transmission asset management.

10 Q. Okay. And next up is Greg Gabbard?

11 A. Greg Gabbard is my twin brother, formerly the
12 director of transmission line project management.

13 Q. Okay. And is he still with the company?

14 A. Yes, he is.

15 Q. Okay. What's his position now?

16 A. He's currently director of electrical operations
17 continuous improvement.

18 Q. Next up, Max Tuttmann. Who is Max Tuttmann?

19 A. Max Tuttmann was a fellow -- an MBA fellow that
20 came on board to support a business emersion project from
21 MIT.

22 Q. Next up is Feven Mihretu. Who was is Feven
23 Mihretu?

24 A. Feven is an asset -- was an asset strategy
25 engineer responsible for transmission structures.

26 Q. Jefferson Heidelberg. Do you know who he is?

1 A. Jefferson was a transmission line employee --
2 sorry, let me correct that. Jefferson had numerous
3 positions over time, and actually no longer works for
4 PG&E. I believe, at this point in time, he was part of
5 our customer affordability PMO.

6 Q. Okay. And finally on the required attendees,
7 Jeffrey Lockwood, can you tell us who he is?

8 A. Jeff Lockwood was another front line employee on
9 Boris's team with field experience that was part of the
10 asset management team.

11 Q. All right. And then optional, in addition we
12 already talked about Evangeline Arcia, and Eric Back. Is
13 that the person that you described as your counterpart in
14 the transmission operations?

15 A. That is correct.

16 Q. All right. Now, the -- there's an attachment to
17 this that says it's an ageing infrastructure initiative.

18 Do you recall the ageing infrastructure
19 initiative?

20 A. Not specifically.

21 Q. Okay. Can you give us basically a general, high
22 level description of what the aging infrastructure was?

23 A. So I think it would be helpful to start at what
24 CAR stands for --

25 Q. Okay.

26 A. -- on the second file. So CAR stands for

1 Customer Affordability -- I don't recall what the R stands
2 for. But customer affordability initiative, and then I
3 have seen this -- a version of this meeting request
4 recently. My recollection is that the PowerPoint shown
5 here is a template under the initiative.

6 Q. Okay.

7 A. Customer affordability was -- was understanding
8 that departing loads associated with rooftop solar as well
9 as increasing costs on our customers associated with the
10 investments we needed to make in our -- in our
11 infrastructure were putting significant pressure on rates
12 for our customers, and so we were tasked with looking for
13 ways we can do business differently to decrease our
14 overall impact on customer rates. So it's a customer
15 affordability initiative.

16 The aging infrastructure reference was a
17 potential work stream identified that, I believe, this
18 meeting was intended to discussed -- to discuss. The
19 concept was can we do things differently in order to
20 decrease impact on overall customer rates? That could
21 potentially take the form of if we have a structure, per
22 se, that needed more regular maintenance because it's been
23 in service for longer. Do we have the opportunity to
24 replace it, and then thereby decreasing ongoing
25 operational costs for our customers.

26 So looking at those economic analyses from a net

1 present value standpoint for our customers and see if
2 there are things we can do different in our business.

3 My speculation is that this work stream
4 discussion did not translate into anything. I don't
5 recall it showing up any -- you know, beyond that point in
6 time. The opportunities to drive cost out of our business
7 existed in other work streams so this was -- did not, kind
8 of, bubble up to the top.

9 Q. And that is made -- you know, effort to keep
10 customer costs down to make changes in the way that you're
11 doing business without reducing profits, correct?

12 A. This -- this effort was independent of profits.

13 Q. Okay. But isn't that always a -- a big factor is
14 that -- as it's put in a previous PG&E document, that paid
15 on maximum dividend is priority number one?

16 A. Can you restate the question?

17 Q. Right. You're -- you're trying to reduce the
18 effect on your customers, but always keeping in mind that
19 profit, the dividends that are paid to the shareholders
20 cannot be reduced; is that correct?

21 A. The intent of this effort was to reduce cost to
22 our customers solely by reducing costs of operating the
23 business.

24 Q. All right. Let's go onto 1343, which is another
25 e-mail on the same topic. Do you see 1343 there?

26 GRAND JUROR NUMBER FOURTEEN: Marc, can you make that

1 bigger?

2 MR. NOEL: I cannot make that bigger.

3 THE WITNESS: Can we take another quick break?

4 MR. NOEL: Sure. Is that okay, Madam Foreperson?

5 GRAND JURY FOREPERSON: Yes.

6 MS. DUPRE-TOKOS: You need to get the admonishment,
7 though.

8 THE WITNESS: Okay.

9 GRAND JURY FOREPERSON: Five minutes? Ten minutes?

10 MS. DUPRE-TOKOS: Ten. Well, we say five and it'll
11 really be ten.

12 GRAND JURY FOREPERSON: Okay. Mr. Gabbard, you are
13 admonished not to discuss or disclose at any time outside
14 of this jury room the questions that have been asked of
15 you or your answers until authorized by this grand jury or
16 the Court.

17 A violation of these instructions on your part
18 may be the basis for a charge against you of contempt of
19 court. This does not preclude you from discussing your
20 legal rights with your own attorney.

21 Mr. Gabbard, what I have just said is a warning
22 not to discuss this case with anyone except the Court,
23 your lawyer, or the district attorney.

24 THE WITNESS: Understood.

25 GRAND JURY FOREPERSON: Okay.

26

1 [Recess was taken from 11:21 until 11:32 a.m. whereupon
2 the grand jury comes to order in Courtroom 9.]

3

4 GRAND JURY FOREPERSON: All members of the grand
5 jury are present and ready to proceed.

6 Can you please bring the -- the person in,
7 please?

8 Joe, can you get him, please? We're ready to
9 proceed.

10 MR. NOEL: All right.

11 BY MR. NOEL:

12 Q. Next up, we have Exhibit 1343, we will go through
13 this very quickly. Looks like another e-mail. Do you
14 recognize 1343?

15 A. Not out of memory, but it looks familiar.

16 Q. Right. It's an e-mail from you on June 12, 2017,
17 about the ageing infrastructure initiative and basically
18 setting up meetings. Am I correct?

19 A. That is correct.

20 [Exhibit No. 1343 was identified.]

21 BY MR. NOEL:

22 Q. All right. And then the first meeting is to
23 discuss large project bundling initiative. Do you recall
24 what -- what the large project bundling initiative was?

25 A. I'm working off of my memory, but I'm assuming
26 that it was similar in nature -- was to look at how we can

1 modify our processes in order to bundle work. Looking at
2 leveraging large projects, and then identifying other
3 maintenance or smaller repair projects associated with the
4 same motivation or the same assets and bundling that work
5 together to be done once and drive efficiency in the way
6 we operate our business.

7 So, for example, if we're mobilizing a crew of
8 linemen out to a location, we want them to do all of the
9 work at that location all at the same time as opposed to
10 going out to do one repair on one piece of equipment, and
11 then mobilizing a second time to work on the second piece.
12 That way we can reduce cost for our customers.

13 Q. All right. And then meeting to discuss the
14 ageing infrastructure initiative. And it says level set
15 on expectations for affordability initiative process and
16 ageing infrastructure initiative. Is that what you
17 explained to us earlier?

18 A. That's correct.

19 Q. All right.

20 A. This would have been the e-mail from my admin to
21 request setting up of the meeting that we previously
22 reviewed.

23 Q. All right. Next up is 1344. We're not going to
24 spend a whole lot of time on this. But 1342 referenced an
25 attached PowerPoint, correct?

26 A. That is correct.

1 Q. And 1344 is the attach -- is the PowerPoint?

2 A. Correct.

3 [Exhibit No. 1344 was identified.]

4 BY MR. NOEL:

5 Q. And that PowerPoint sets out some very generic
6 templates how to process stuff or how to report
7 information, correct?

8 A. That is correct.

9 Q. All right.

10 MS. DUPRE-TOKOS: Marc, you said 1342, you said it
11 was attached to 1342.

12 MR. NOEL: 1342. I'm sorry, 1252. Not 1342. It's
13 not -- it's referenced in 1252, right, or 1352 or 1252.

14 GRAND JURY SECRETARY: 12.

15 MR. NOEL: I'm sorry. I can't read my own
16 handwriting.

17 BY MR. NOEL:

18 Q. Going onto blow up the project charge -- charter,
19 and it lists the people who are assigned to this project,
20 correct?

21 A. Correct.

22 Q. All right. So onto the Quanta report. You
23 should have 827 there in front of you. See 827?

24 A. Yes, I do.

25 [Exhibit No. 827 was identified.]

26 ///

1 BY MR. NOEL:

2 Q. Are you familiar with 827?

3 A. Yes.

4 Q. And how are you familiar with 827?

5 A. I have previously reviewed this document.

6 Q. Now, touched on this document a few times earlier
7 and you said that you had some personal disagreement with
8 how this document was produced or the -- the research that
9 went into this document?

10 A. In -- I wouldn't say that holistically. I think
11 that there are -- there's a lot of information collected
12 and a lot of conclusions in here that I agree with, and I
13 believe are sound. There are some components of the data
14 analytics that I think are deficient or at least not
15 sufficient for my needs in my asset management role.

16 Q. Okay. So if you can identify for us, which are
17 the components of data analytics that you didn't feel were
18 sufficient for you to do your job or for your job?

19 A. Sure. Give me one minute.

20 Q. Okay. Just give us the page numbers, and I will
21 pull it up here.

22 A. Okay. In general, my reservation exists for the
23 analysis performed and summarized in section 10, starting
24 on page 37. Specific characterization of some of my
25 concerns can be found in the first paragraph. Halfway
26 down, it should be noted that this analysis is based only

1 on structure component failures reported in the 2004
2 through 2008 time period.

3 I also expressed concern with the
4 characterization of -- for the purpose of this review and
5 analysis, a "failure" is defined as assumed end of life of
6 a component thereby requiring significant maintenance or
7 replacement. It does not mean complete failure of a
8 structure.

9 Q. Okay. And why is it that -- that you have issue
10 with those statements?

11 A. I can highlight some additional things after, but
12 -- to give some context, but, in essence, what has been
13 done in a subset of time, four-year period of data was
14 first taken to represent all of history. Then the
15 analysis excluded survival data. So data associated with
16 assets that did not have a failure. So it's not looking
17 at both the failure data and -- and survival data, but
18 only a subset of the data, and I think that is
19 statistically flawed.

20 In addition, it quantifies any sort of
21 maintenance as a failure. To me, that is categorically
22 wrong. And then the last concern, I think is one that is
23 very impactful, is that it plots the -- the likelihood of
24 failure given age across the age range of the existing
25 data set. As you can imagine, at this point in time,
26 there are no assets that exceed 100 years of age. Instead

1 of leveraging the data to fit to a distribution that would
2 be representative of the expected performance of an asset
3 that degrades over time, they made assumptions to fix the
4 max age to fix to the max age of the data set, which says,
5 "Since there weren't any assets in service greater than a
6 hundred years, therefore, we're going to put a maximum to
7 it at 100 years and say the max life for an asset is a
8 hundred years," and that is statistically flawed.

9 Q. Okay.

10 BY MS. DUPRE-TOKOS:

11 Q. So, Mr. Gabbard, I understand your point of view
12 that view that a statistically flawed. Others would view
13 it as basing the statistics on real-life data, therefore,
14 increasing the data's voracity. What's your response to
15 that?

16 A. Well, I can't speak to what others would say, but
17 I can say that Quanta spoke to this specifically in the
18 report. If you look in the reference on page 38, in last
19 paragraph underneath figure 10-2. Their note says that
20 "The survival function approaches zero at age -- as age
21 increases to around 100. This is because we only analyzed
22 failed structures. There are many structures 100 years
23 old that have not failed or more likely have had component
24 replacements or significant maintenance prior to the
25 period in this data set. The oldest structure found in
26 the current notification database is 99." It goes on from

1 there.

2 It's their -- they're quantifying that their
3 data -- their limitation on their analysis is solely based
4 on the limitation of only using failure data in that time
5 period.

6 Q. So are you expecting them to project data because
7 there are no towers older than 100?

8 A. That would be what a sound statistical analysis
9 would have done.

10 Q. Under some circumstances, apparently that's your
11 belief under the scientific method. However, it's
12 generally considered perfectly statistically valid to base
13 information on the available data without doing a
14 projection.

15 Do you disagree with that? You're an engineer so
16 you should be familiar with that.

17 A. I don't understand. Can you please restate that
18 statement?

19 Q. Certainly. Under the scientific method, it is
20 perfectly statistically valid to do an analysis using
21 actual data without doing a projection. And you're saying
22 it's not valid because they did not do a projection that
23 makes it statistically invalid, and I'm pointing out that
24 under a commonly accepted scientific method and my
25 understanding from my engineering classes is it's also
26 acceptable -- accepted in the engineering world that not

1 protecting and actually relying on actual data is
2 statistically valid.

3 A. So my statement is truly based on fixing the max
4 age to the max age within a data set is arbitrarily
5 incorrect. That there is statistical methods to fit data
6 to allow the analysis to project what the right maximum
7 life would be. It doesn't mean that it necessarily has to
8 be outside of the data set, but if it is outside of the
9 data set, there are appropriate methods to calculate that
10 and they have not employed that in this data set.

11 Q. So are you disputing that there are statistically
12 valid methods that do not require projections then to fit
13 into the data set?

14 A. I'm not sure that I can answer that question. I
15 don't understand the statement.

16 Q. Well, you just said that it's statistically
17 invalid because it fixes the timeframe at 100 years, and
18 that there are methods to -- to fit in other data beyond
19 that, correct, essentially projections?

20 A. I'm saying that Quanta, as quoted, states that
21 they have arbitrarily fixed the max duration to a hundred
22 because of the limitations of the data set despite having
23 assets that are outside of the data set that have lived
24 beyond that fixed assumption. So that, by itself, says
25 that what they have done is arbitrarily fixed their --
26 their ultimate assessment without accounting for survival

1 data that is outside of that failure set.

2 Q. So what you're having an issue with is the fact
3 that they said the oldest structure found in the current
4 inventory database is 102 years old, so that's outside of
5 the fixed limit of 100. Is that your problem?

6 A. That is correct.

7 Q. Okay.

8 BY MR. NOEL:

9 Q. And also, maybe -- I kind of understood this,
10 your job with asset management is projecting into the
11 future, correct?

12 A. That is correct.

13 Q. And planning out five years or so in advance what
14 is going to need to be done, not necessarily what needs to
15 be done today, correct?

16 A. That is correct.

17 Q. So projection of asset life into the future would
18 be something that would be very important to you?

19 A. It would.

20 Q. Okay. And one of the things, as you can tell
21 since it's highlighted on the board. We might as well get
22 to it. There are many structures 100 years old that have
23 not failed or more likely have had components replaced or
24 significant maintenance prior to this period, correct?

25 A. That is correct.

26 Q. So that would assume that most hundred year old

1 structures have had significant work done on them --
2 replacement, repair, that kind of maintenance, correct?

3 A. That is correct.

4 Q. And that's another assumption that Quanta is
5 making is that these older structures are having component
6 replacement, component repair throughout their lifespan?

7 A. These are qualification that they're highlighting
8 as a potential reason for assets being able to live longer
9 is by increasing the expected life through maintenance.

10 Q. Okay.

11 A. I think that statement is made numerous times in
12 the report as an explanation for why age should not be the
13 sole piece of information used to determine whether or not
14 an asset should be replaced.

15 Q. Exactly. One of the -- one of the main focuses,
16 conclusions of the Quanta study is if you maintain these
17 structures, you can expand the lifecycle of the
18 structures, correct?

19 A. That is correct.

20 Q. And essentially proper maintenance can extend
21 them indefinitely as a matter of fact?

22 A. I don't recall if Quanta states that in the
23 report.

24 Q. Okay. But the precondition to all of that is
25 proper maintenance?

26 A. That is correct.

1 Q. All right. Executive -- go back to beginning of
2 page two, Executive Summary.

3 "Transmission line structures are critical system
4 assets that are highly reliable when constructed, loaded
5 and maintained within the original design parameters of
6 the structure and the materials employed. Structures are
7 subject" -- and I think this should say, "Structures are
8 subject to deterioration of the following types." The
9 first one being mechanical. "Deterioration of the
10 structure caused by some type of mechanical action."

11 Did I read that correctly?

12 A. Sorry, I lost you here.

13 Q. I'm sorry, it's page two. The very beginning,
14 section one of the executive summary.

15 A. I have a different page two. Oh, page double I,
16 I got it.

17 Q. Oh, I'm looking at the -- I'm look at the page
18 number on the PDF, not the page number on the bottom, I'm
19 sorry.

20 A. Oh, understood. So it's page single I.

21 Q. Page single I there.

22 A. Okay.

23 Q. So mechanical deterioration of the structure
24 caused by some type of mechanical action?

25 A. That's correct.

26 Q. Does that include body-on-body wear?

1 A. It could, yes.

2 Q. And then down below it says, "Of these
3 deterioration types mechanical and chemical are the two
4 primary concerns for steel structures;" is that correct?

5 A. That is correct.

6 Q. Mechanical deterioration can result from climatic
7 loading wind and ice. Mechanical -- that's metal fatigue due
8 to wind induced vibration, surface erosion from boring
9 particles and external forces such as vehicular or
10 ballistic impacts." And then "The primary form of
11 chemical deterioration is corrosion," correct?

12 A. That is correct.

13 Q. So the two biggest threats against these olds --
14 these old structures are mechanical deterioration and
15 chemical deterioration. Corrosion where?

16 A. Correct.

17 Q. In essence.

18 A. Correct.

19 Q. Okay. And then I'm not going to spend too much
20 time here with the Quanta report, but it goes through
21 inspection procedures based upon a -- an analysis of data
22 from, I think it says, 103 separate utilities around the
23 word, correct?

24 A. I believe so, yes.

25 Q. And the ultimate question on all of this is at
26 the end, Quanta makes recommendations about what PG&E can

1 do to extend the life of these assets, of these old
2 structures. And among those are enhanced inspections.
3 And they talk about cycles: Climbing, grounds inspections
4 and -- can you explain to us why PG&E did not ever adopt
5 any of those recommendations?

6 A. So this report was done well before my time. My
7 understanding is that this report was to look at the
8 overall asset management framework for our ageing asset
9 base and what it concluded is that age is not the -- the
10 primary driver for re -- and replacement meant, in many
11 instances, it's not the primary mitigation for effective
12 management of long-lived assets but rather highlights the
13 need for a robust inspection program, more so as assets
14 increase in age.

15 As a result of those conclusions, I understand
16 that PG&E commissioned Quanta at a later date to do a more
17 targeted analysis on its inspection program, and I have
18 not had a chance to review that report. That was done
19 under the oversight of what would have been my
20 counterpart's position tenure before to make sure that we
21 had a robust inspection program, and I can't speak to any
22 details of the findings or the actions taken.

23 Q. And when we talk about counterpart, you're
24 talking about Eric Back, correct?

25 A. His predecessor.

26 Q. His predecessor. And --

1 A. Or maybe several predecessors before.

2 Q. Right. And you've never read the 2012 inspection
3 procedures report, correct?

4 A. I have not.

5 Q. Okay. But I think you characterized this very
6 well. Age isn't necessarily the primary driver of
7 failure, correct?

8 A. Correct.

9 Q. Replacement doesn't have to be the primary
10 mitigation for these structures, correct?

11 A. Correct.

12 Q. And -- in final conclusion, what Quanta is saying
13 is the primary mitigation is a thorough, vigorous
14 inspection cycle to keep any on these old structures and
15 basically head off problems before they occur, correct?

16 A. That is correct.

17 Q. So I know it's before your time, but do you have
18 any idea of why PG&E has gone the opposite direction?

19 A. I don't know that I can agree with that
20 characterization or counter it. I'm not familiar with the
21 actions taken in this space.

22 Q. Okay. Well, let's say, for instance, in 1987,
23 PG&E policy required one detailed ground inspection
24 including climbing of five percent of every tower line and
25 two aerial patrols per year for every asset. In 1995,
26 that was reduced to one ground inspection, one aerial

1 patrol on alternating years and climbing inspections were
2 eliminated. In 2005, that was reduced further to four
3 aerial patrols and a ground inspection every fifth year.
4 So basically every five years you're doing a ground
5 inspection, and then in the in-between years, you're doing
6 an aerial patrol.

7 In addition, they've minimized the air patrols
8 from spending seven, eight or more hours inspecting or
9 patrolling a transmission line to doing it in two to three
10 hours, which means you'll fly higher and fly faster.

11 So my question is that at the time you were in
12 charge of transmission asset management and you were using
13 those -- that inspection data to inform future projects to
14 mitigate the risks that we have talked about. Can you
15 explain why PG&E is lessening the inspections of these
16 assets as they're ageing?

17 A. I cannot.

18 MR. NOEL: It is just about noon, before we go onto
19 the next, do you want to break for lunch?

20 GRAND JURY FOREPERSON: Yes.

21 MR. NOEL: What I am trying to say is this is the
22 perfect time to break for lunch recess.

23 GRAND JURY FOREPERSON: Yes.

24 Okay. Mr. Gabbard, you are admonished not to
25 discuss or disclose at any time outside of this jury room
26 the questions that have been asked of you or your answers

1 until authorized by this grand jury or the Court.

2 A violation of these instructions on your part
3 may be the basis for a charge against you of contempt of
4 court. This does not preclude you from discussing your
5 legal rights with your own attorney.

6 Mr. Gabbard, what I have just said is a warning
7 not to discuss this case with anyone except the Court,
8 your lawyer, or the district attorney.

9 THE WITNESS: Understood.

10 GRAND JURY FOREPERSON: And we will recess for lunch
11 and be back in an hour and a half. So 1:30?

12 MR. NOEL: Yes, ma'am.

13 GRAND JURY FOREPERSON: Okay. 1:30. See you then.

14 [Recess taken from 11:58 a.m. until 1:31 p.m. whereupon
15 the grand jury comes to order in Courtroom 9.]

16
17 THE COURT: All members of the grand jury are present
18 and ready the proceed. We will take the role now.

19 GRAND JURY SECRETARY: Juror number one?

20 GRAND JUROR NUMBER ONE: Here.

21 GRAND JURY SECRETARY: Juror number two?

22 GRAND JUROR NUMBER TWO: Here.

23 GRAND JURY SECRETARY: Juror number three?

24 GRAND JUROR NUMBER THREE: Here.

25 GRAND JURY SECRETARY: Juror number four?

26 GRAND JUROR NUMBER FOUR: Here.

1 GRAND JURY SECRETARY: Juror number five?
2 GRAND JUROR NUMBER FIVE: Here.
3 GRAND JURY SECRETARY: Juror number six?
4 GRAND JUROR NUMBER SIX: Here.
5 GRAND JURY SECRETARY: Juror number seven?
6 GRAND JUROR NUMBER SEVEN: Here.
7 GRAND JURY SECRETARY: Juror number eight?
8 GRAND JUROR NUMBER EIGHT: Here.
9 GRAND JURY SECRETARY: Juror number nine?
10 GRAND JUROR NUMBER NINE: Here.
11 GRAND JURY SECRETARY: Juror number ten?
12 GRAND JUROR NUMBER TEN: Yes.
13 GRAND JURY SECRETARY: Juror number eleven?
14 GRAND JUROR NUMBER ELEVEN: Here.
15 GRAND JURY SECRETARY: Juror number thirteen?
16 GRAND JUROR NUMBER THIRTEEN: Here.
17 GRAND JURY SECRETARY: Juror number fourteen?
18 GRAND JUROR NUMBER FOURTEEN: Here.
19 GRAND JURY SECRETARY: Juror number fifteen?
20 GRAND JUROR NUMBER FIFTEEN: Here.
21 GRAND JURY SECRETARY: Juror number seventeen?
22 GRAND JUROR NUMBER SEVENTEEN: Here.
23 GRAND JURY SECRETARY: Juror number eighteen?
24 GRAND JUROR NUMBER EIGHTEEN: Here.
25 GRAND JURY SECRETARY: All members of the grand jury
26 are present.

1 GRAND JURY FOREPERSON: Okay. Before we get started,
2 we have a task and that is to decide what we're going to
3 do when we deliberate. Show-up wise, are we going to
4 still do Mondays -- or Tuesdays, Fridays, or do you have
5 other things in mind? What are your thoughts?

6 GRAND JUROR NUMBER FOUR: I think Tuesday and Friday
7 is probably a pretty good schedule. I think we will
8 probably have the time we need.

9 GRAND JUROR NUMBER THREE: I'm kind of stuck with
10 that for work.

11 GRAND JUROR NUMBER FIFTEEN: Yes, I agree.

12 GRAND JUROR NUMBER THREE: They're already working
13 with me.

14 GRAND JUROR NUMBER NINE: We can decide -- can we
15 decide we go along if we need more time or not?

16 MR. NOEL: Yeah, yeah.

17 GRAND JURY FOREPERSON: I think that Marc said that
18 we could.

19 GRAND JUROR NUMBER FIFTEEN: Yeah, you can.

20 GRAND JURY FOREPERSON: He said we could request it.
21 So -- okay. So for now, I would just like to go down and
22 have each and every person let us know what you want to
23 do.

24 GRAND JUROR NUMBER TWO: Tuesday, the same schedule
25 is fine for me.

26 GRAND JUROR NUMBER THREE: Tuesday, Friday.

1 GRAND JUROR NUMBER FOUR: Tuesday, Friday.
2 GRAND JUROR NUMBER SIX: Tuesday and Friday is okay.
3 GRAND JUROR NUMBER SEVEN: Agree.
4 GRAND JUROR NUMBER EIGHT: Tuesday, Friday is fine.
5 GRAND JUROR NUMBER NINE: Tuesday, Friday.
6 GRAND JUROR NUMBER TEN: The current is fine.
7 GRAND JURY FOREPERSON: I'm sorry?
8 GRAND JUROR NUMBER TEN: The current is fine.
9 GRAND JUROR NUMBER FIFTEEN: Yes, agree.
10 GRAND JUROR NUMBER THIRTEEN: That's fine.
11 GRAND JUROR NUMBER FOURTEEN: Seven days a week.
12 What's the matter, Marc?
13 GRAND JURY FOREPERSON: I think -- I think you're out
14 numbered.
15 GRAND JUROR NUMBER FOURTEEN: The sooner the better.
16 GRAND JURY FOREPERSON: Tuesday and Friday?
17 GRAND JUROR NUMBER FOURTEEN: Tuesday and Friday.
18 GRAND JURY FOREPERSON: Okay.
19 GRAND JUROR NUMBER EIGHTEEN: Tuesday, Friday is
20 good.
21 GRAND JUROR NUMBER FIVE: I'm good.
22 GRAND JUROR NUMBER SEVENTEEN: Monday, Tuesday,
23 Friday.
24 GRAND JURY SECRETARY: I can't do Mondays, but
25 Tuesday and Friday still work fine for me.
26 GRAND JURY FOREPERSON: All right. Tuesday and

1 Friday it is.

2 MR. NOEL: Okay, so I will inform the clerk that at
3 least to start with, it'll be Tuesday, Friday, and then if
4 we start getting close to that 24th deadline, you may want
5 to increase that, for instance, a weekend or nights.
6 You'll be looking at, I think, it's -- what is it, the --
7 the 6th is a Friday, the 13th, so we'd be looking at
8 Saturday the 21st and Sunday the 22nd as being possible if
9 necessary.

10 GRAND JURY SECRETARY: Is it possible instead of
11 meeting on a weekends to meet longer during the week?

12 MR. NOEL: Again, that's --

13 MS. DUPRE-TOKOS: Yes.

14 MR. NOEL: -- up to you guys.

15 MS. DUPRE-TOKOS: Yes.

16 MR. NOEL: Just need to clear that. The court needs
17 to make -- make the arrangements for it.

18 GRAND JURY FOREPERSON: Okay. But, for now, we can
19 just leave it like it is until we start getting close.

20 MR. NOEL: Yeah. For now, Tuesday and Friday.

21 THE COURT: Okay. All right. That's all I wanted to
22 know. So we're ready the start.

23 GRAND JUROR NUMBER FOURTEEN: Do we need to really
24 listen to the rest of the witnesses? Can we go on to
25 deliberate or do we -- is it that important that we listen
26 to them?

1 MR. NOEL: It's always important to listen to them.

2 MS. DUPRE-TOKOS: Are you telling us you don't want
3 to hear anymore witnesses?

4 GRAND JURY FOREPERSON: Garbage in, garbage out.

5 MR. NOEL: Define "garbage."

6 MS. DUPRE-TOKOS: That was very good.

7 MR. NOEL: But also remember that we're not only
8 looking for inculpatory, but there's also the possibility
9 of exculpatory evidence that can come in through any of
10 these witnesses and that obviously needs to be considered
11 also.

12 So if I -- it sounds like what you're saying is
13 you think -- that you've got enough evidence at this
14 point?

15 GRAND JUROR NUMBER FOURTEEN: Well, my thinking is is
16 I don't want to be in a rush to make a decision.

17 MS. DUPRE-TOKOS: Right.

18 GRAND JUROR NUMBER FOURTEEN: That's my thing. If
19 we've pretty much listened to a lot of it, then let's get
20 on with it.

21 MS. DUPRE-TOKOS: Yep.

22 MR. NOEL: Well, assuming that you start
23 deliberations on the 10th, that is going to give you two
24 and a half weeks, or if you do five sessions at the very
25 least.

26 GRAND JUROR NUMBER FOUR: 40 hours.

1 MS. DUPRE-TOKOS: Right, at the very least. If you
2 need more, you'll have to plan ahead so that we can
3 increase it and work with the court to get you the -- you
4 know, keep the building open longer for evenings or
5 something if that's what you want to do as opposed to
6 weekends. Because I saw some of your reactions when
7 weekends were mentioned so I know that's not an option.

8 GRAND JUROR NUMBER EIGHTEEN: How are you going to
9 get the cops to be here at night, the sheriff's deputies?

10 MS. DUPRE-TOKOS: The --

11 GRAND JUROR NUMBER FOUR: They can do shift work.

12 GRAND JUROR NUMBER EIGHTEEN: They don't like us
13 being here after 4:30.

14 MS. DUPRE-TOKOS: Yeah, they'll --

15 GRAND JUROR NUMBER FOUR: They have night shifts.

16 MS. DUPRE-TOKOS: They'll bring someone else up.

17 MR. NOEL: Well, and -- and -- a part of that is, of
18 course, with the state and county budget that overtime
19 needs to be cleared first and -- you know, I know that if
20 need be Sheriff Honea will clear the overtime.

21 GRAND JUROR NUMBER FOUR: Is there any chance that we
22 will get the case before the 10th of March?

23 GRAND JUROR NUMBER EIGHTEEN: Not likely.

24 MS. DUPRE-TOKOS: The only way that will happen is if
25 we are able to do your summations on the 3rd, which is
26 next Tuesday, and finish them that day, you would start

1 the case on the 6th. And we can aim for that.

2 MR. NOEL: Yeah, we will try -- try our best to get
3 it to you sometime on the 6th.

4 GRAND JURY FOREPERSON: But we don't want to be
5 rushed either.

6 MR. NOEL: Right.

7 GRAND JUROR NUMBER NINE: No, we don't.

8 MS. DUPRE-TOKOS: Right.

9 GRAND JUROR NUMBER SIX: Can I ask a question about
10 the law. Let's -- assuming that jury wants to indict PG&E
11 for negligent homicide, okay?

12 MR. NOEL: Yeah.

13 GRAND JUROR NUMBER SIX: And so what -- what is it --
14 and let's assume that they are found guilty. What is the
15 consequences of that -- of that verdict to PG&E?

16 MR. NOEL: That will be up to a judge down the road.
17 You know, realistically, probation.

18 MS. DUPRE-TOKOS: But -- hang on, Marc. But, again,
19 I'm assuming as someone from a regular jury that is not to
20 be considered so we shouldn't go into that.

21 MR. NOEL: That's true.

22 GRAND JUROR NUMBER EIGHTEEN: Aren't they already on
23 probation?

24 MS. DUPRE-TOKOS: You're not supposed to factor in
25 punishment in any way, so we're not going to talk about
26 that.

1 GRAND JUROR NUMBER SIX: Okay.

2 MS. DUPRE-TOKOS: I'm no fun.

3 MR. NOEL: So forget about the issue of punishment.

4 GRAND JURY FOREPERSON: Okay.

5 MS. DUPRE-TOKOS: That's the judge's job.

6 MR. NOEL: Okay. Are we ready?

7 GRAND JURY FOREPERSON: Are we ready for the witness?

8 GRAND JUROR NUMBER SEVENTEEN: I just want to make a

9 comment. So I'm taking it the reason why we're keeping

10 these witnesses scheduled on the schedule is because

11 they're important to factor in in our decision?

12 MS. DUPRE-TOKOS: We believe they have information

13 that you should hear whether it's inculpatory or

14 exculpatory.

15 GRAND JUROR NUMBER SEVENTEEN: Okay.

16 MS. DUPRE-TOKOS: We're obligated to put on

17 exculpatory evidence as well as inculpatory evidence since

18 there's no defense attorney here.

19 MR. NOEL: And the final witnesses, like we said, on

20 Friday were not the final witnesses, but on Friday will be

21 on the experts.

22 MS. DUPRE-TOKOS: They might be final witnesses.

23 MR. NOEL: They might be final. And they'll be here

24 to explain what they've been working on.

25 GRAND JUROR NUMBER SEVENTEEN: Sounds good.

26 MS. DUPRE-TOKOS: Any other questions? Ready to get

1 back to Mr. Gabbard?

2 GRAND JUROR NUMBER NINE: We're so excited.

3 [Witness enters the courtroom.]

4 GRAND JURY FOREPERSON: Mr. Gabbard, you're still
5 under oath.

6 THE WITNESS: Thank you.

7 GRAND JURY FOREPERSON: Have a seat, please. Thank
8 you.

9 BY MR. NOEL:

10 Q. Earlier, and on -- on Friday, we had discussed
11 some your issues with the Quanta report that we just
12 clarified before lunch as being that it was not
13 prospective. It did not project out into the future,
14 correct?

15 A. To an extent, yes.

16 Q. Okay. And I think on Friday, you mentioned that
17 steps had been taken to do other research into that very
18 question, correct?

19 A. So I characterize our previous that although the
20 references were -- were forward-looking continuous
21 improvement statements that the intent was there. I can't
22 say that we actually made progress on that front.

23 Q. Okay. And you mentioned earlier Max Tuttmann.
24 And Max Tuttmann was a doctoral candidate from MIT that was
25 working for PG&E, correct?

26 A. Yes.

1 Q. And you have in front of you what's marked as
2 Exhibit 1345. Do you recognize 1345?

3 [Exhibit No. 1345 was identified.]

4 THE WITNESS: I believe I have seen this before.

5 BY MR. NOEL:

6 Q. Okay. And this document is entitled Development
7 of a Sustainable Transmission Structure Replacement and
8 Maintenance Strategy by Max Tuttmann, correct?

9 A. That is correct. And to clarify, I don't believe
10 he was a doctoral candidate. I think he was studying for
11 his masters --

12 Q. Oh, okay.

13 A. -- here.

14 Q. All right. Oops, all of a sudden our computer
15 just -- oh, forgot to plug it in. All right.

16 All right. I just wanted to go over a couple of
17 things in this with you. Oh, I already took the binder
18 out.

19 So first of all, this document, Mr. Tuttmann's
20 document deals with developing a strategy to prolong the
21 life of steel transmission structures; is that correct?

22 A. In part, yes.

23 Q. Okay. And the main focus on Mr. Tuttmann's
24 document is corrosion, correct?

25 A. That is correct.

26 Q. Okay. And it deals with developing a --

1 essentially a painting strategy to minimize corrosion and
2 extend the life of electric or steel transmission
3 structures; is that correct?

4 A. That is correct.

5 Q. All right. So just a couple of points I wanted
6 to ask you about on here first.

7 First one is going to be on page 15, and in
8 section 1.2, Industry Background and Motivation. And,
9 specifically, the sentence starting with The American
10 Society of Civil Engineers. And it states, "The American
11 Society of Civil Engineers estimates that the accumulative
12 investment gap for all electric" -- "electricity
13 infrastructures in the United States including generation
14 and T&D will be 177 billion between 2016 and 2025."

15 A. Can we pause for one second? I was looking at 17
16 of the document.

17 Q. Oh, sure.

18 A. You're on 17 in the PDF.

19 Q. Yeah.

20 A. So that's 1.2.

21 Q. Yeah, section 1.2.

22 A. Okay. Got it, thank you.

23 Q. All right. And then it goes on to state, "The
24 ASCE," which is the American Society of Civil Engineers,
25 "has subsequently given the energy sector as a whole, a
26 D-plus grade on their infrastructure report card

1 indicating that the system is in poor to fair condition
2 with many elements approaching the end of their service
3 life and exhibited significant deterioration."

4 Did I read that correctly?

5 A. You did.

6 Q. Are you familiar with the study by the American
7 Society of Civil Engineers?

8 A. I am not.

9 Q. All right. It goes on to state, "A similar
10 conclusion was reached in 2003 by the Department of
11 Energy, who pronounced the U.S. electricity grid, ageing
12 inefficient, congested and incapable of meeting the future
13 energy needs of the information economy without
14 significant operational changes and substantial public,
15 private and capital investment over the next several
16 decades."

17 Did I read that correctly?

18 A. Yes, you did.

19 Q. Are you familiar with the 2003 opinion of the
20 Department of Energy?

21 A. No, I have not read that citation.

22 Q. Okay. Would you agree with me that this concept
23 of an aging and deteriorating grid, utility
24 infrastructure, has been a known issue at least since the
25 early 2000s?

26 A. Yes.

1 Q. And based upon your knowledge of PG&E, what steps
2 has PG&E completed to this point to remedy the aging,
3 inefficient, congested infrastructure? Good point. The
4 -- and we're talking about the electro transmission
5 infrastructure here, if I didn't state that.

6 A. Okay. So my -- at a very high level, my answer
7 would be that our efforts to mitigate risk associated with
8 ageing infrastructure would be slightly different than the
9 actions taken to alleviate congestion issues.

10 Q. Okay.

11 A. We have, I'd say, multiple parallel processes,
12 work hand-in-hand with the California ISO to understand
13 the current existing constraints, and then future needs of
14 the transmission system in order to identify and get
15 approval for investments and modifications to our
16 transmission infrastructure to meet the continued needs of
17 the transmission system in the state of California.

18 So those would be more modifications to the
19 overall transmission ptychography, changes in capacity in
20 order to meet the change in generation mix as well as any
21 changes in the load characteristic on our system. In
22 parallel we've also invested in aging infrastructure, and
23 our investments in aging infrastructure have continued to
24 increase over time, and I can speak definitively to the
25 timeframe for which I have been involved in transmission,
26 our transmission investments and replacements of aging

1 infrastructure have increased on a regular -- continuously
2 over that time period. I can't speak definitively back to
3 2003, though.

4 Q. Okay. Of that -- of the investment in the aging
5 infrastructure, to your knowledge, how much has that been
6 invested in modernizing and preventative maintenance of
7 the oldest transmission lines in the PG&E inventory?

8 A. I don't know that answer.

9 Q. Okay. Does PG&E treat all of the aging
10 infrastructure equally across its inventory?

11 A. Can you define what you mean by "treats equally"?

12 Q. Go ahead.

13 BY MS. DUPRE-TOKOS:

14 Q. Well, we've -- we've heard from you and from
15 others that the towers in the Bay tend to be treated
16 differently than, say, towers in the Feather River Canyon.
17 But if you're talking about investing in aging
18 infrastructure, are you doing completely equal investments
19 in the aging infrastructure in the Feather River Canyon as
20 you're doing on the Bay area towers? Or basically, is --
21 are all of them -- if you have 20, 90-year old towers run
22 across your entire system, are they all getting the exact
23 same amount of investment in terms of repair, replacement,
24 inspection or are the ones in the Bay area getting a
25 little bit more attention?

26 A. -okay. I understand the question. So I will

1 answer it in two ways.

2 One, I would say, first, the level of investment
3 across our asset base is not equal across the entire
4 service territory. It's differentiated based on different
5 factors that are considered, either from a risk standpoint
6 where a risk is quantified or based on operational
7 characteristics on needs or other character -- other
8 criteria based on set programs whether it be based on
9 capacity needs or other -- other things of that nature.

10 So met -- the methodology that we have in place
11 for evaluating the diversity of risk across our system and
12 diversity of system needs will differentiate the
13 investments across our service territory.

14 On the other side of the answer, I will say that
15 that methodology is consistently applied across all of the
16 assets within our service territory. So if we prioritize
17 investment in structures that are in a higher corrosion
18 zone than lower, because we think the corrosive nature of
19 the environment around those assets may translate to a
20 higher probability of failure then that methodology or
21 approach would be applied consistently across the service
22 territory. And so we -- one -- one tower that may be
23 adjacent to the city of San Francisco that is in a higher
24 corrosion zone would be evaluated consistently with one
25 that is adjacent to the Delta inland, you know, closer to
26 the middle part of the state.

1 Q. Okay. Couple of follow-ups on that. So first of
2 all, you stated on Friday that your entire service area is
3 in a corrosion zone.

4 A. Some corrosion zone or another. We have
5 characterized our corrosion zones between high, all the
6 way down to low.

7 Q. Okay.

8 A. I think they're corrosion zone 1, 2 3, 4, 5, if
9 I'm not mistaken. So we have quantified the corrosion
10 zone. My last answer was referencing high corrosion.

11 Q. Okay.

12 A. Thank you for the clarification.

13 Q. Okay. Now, your first answer -- your first part
14 of the answer, you talked about, yeah, there may be
15 differentiation based on risk if risk has been quantified.
16 But that's keeping in mind that -- as we talked about on
17 Friday, risk in part is informed by the information you
18 receive from the field, correct?

19 A. That is correct.

20 Q. And so, again, if you're not getting good
21 information from the field, you're not necessarily having
22 well-informed risk decisions?

23 A. Potentially, yes.

24 Q. Okay. So using risk as a major motivator or
25 decision factor, does not necessarily take into account
26 everything that could be going on with aging

1 infrastructure. Would that be accurate?

2 A. Yes.

3 Q. Thank you.

4 BY MR. NOEL:

5 Q. Thank you. All right. Try to keep this quick.

6 Moving onto -- you should have the big binder in front
7 you, which is Exhibit 1349. Sorry, hitting the wrong
8 button. Do you see Exhibit 1349?

9 A. Yes, I do.

10 Q. What is Exhibit 1349?

11 A. This appears to be PG&E 2017 RAMP filing.

12 Q. Okay. Can you explain to us what a RAMP filing
13 is?

14 A. Sure thing. So under CPUC regulation, the state
15 of California initiated a proceeding to transform our rate
16 filing process. What has generally just been a general
17 rate case was restructured to take the form of three
18 subsequent proceedings. The first of which is the SMAP
19 proceeding. That will be the Safety Modeling Assessment
20 Proceeding. That proceeding would lay the framework for
21 consistent methodology for quantifying risk attributes and
22 measuring against that quantification with input from
23 external stakeholders, the utility, CPUC and others. That
24 proceeding was intended to complete prior to the next
25 phase, but in the initial iteration of this process or the
26 implementation of the profession, it did not. So it was

1 running in parallel with the RAMP phase, which is the Risk
2 Assessment Mitigation Phase.

3 The RAMP assessment was an effort to actually
4 model the risk across PG&E's infrastructure in alignment
5 with the methodologies that are established with within
6 the SMAP proceeding in order to have a consistent
7 framework for quantifying both risk associated with our
8 assets, and then the reduction in risk associated with our
9 proposed investments in our infrastructure.

10 So they modeled and quantified those
11 characteristics. The proposed mitigations that were --
12 that that risk reduction characteristic was modeled for,
13 those proposed investments were then shown in our general
14 rate case testimony, which says these are the things that
15 PG&E intended to do to reduce risk on our system and here
16 is the associated revenue requirement necessary for us to
17 make those prudent investments.

18 Q. Thank you. Okay. Go through this really quick.
19 Chapter 10, which starts on page 300 of the PDF. I don't
20 think there are page numbers. Yeah, it starts at Section
21 10.1, so they're not consecutive page numbers. If you
22 flip back to that. And this is the -- the section of the
23 RAMP dealing with risk assessment mitigation for
24 transmission overhead conductors, correct?

25 A. Yes.

26 Q. And this section deals with recognized risks and

1 how PG&E is addressing those risks with transmission
2 overhead conductors; is that correct?

3 A. That is correct.

4 Q. With one exception, correct, wildfire has its own
5 section?

6 A. That is correct.

7 Q. It keeps telling us throughout this document.
8 We're not talking about wildfire, go to Chapter 11.

9 All right. So executive summary starts off with
10 and it talks about the inherent risk associated with the
11 overhead transmission conductors. Do you see that?

12 A. Are you referencing the highlighted section?

13 Q. Yeah. Or just the -- the basics. It says,
14 "Because of these attributes, there are inherent risks
15 associated with overhead transmission conductors. Contact
16 with these conductors could result in injuries and
17 fatalities from shock and electrocution and failure to
18 these conductors could result in large outages or system
19 instability. The risk continues to be a top priority for
20 PG&E as demograted[sic]" -- "demonstrated," -- sorry -- "
21 through ongoing investments and conductor replacement
22 compliance and public safety programs."

23 That's the -- basically the -- the objective --
24 the executive summary here, correct?

25 A. Yes.

26 Q. And then it goes down again to qualify it, "Given

1 this backdrop, it's important to note that the scope on
2 this risk analysis specifically excludes wildfire, but the
3 Transmission Overhead Conductor is included as a risk
4 driver to wildfire risk analysis;" is that correct?

5 A. Yes, it is.

6 Q. All right. And then, "Risk assessments:
7 Overhead transmission lines that are energized to high
8 voltage are exposed to the public and form the backbone of
9 PG&E electrical system;" is that correct?

10 A. Yes.

11 Q. And that means that these transmission lines are
12 inherently dangerous, correct?

13 A. Yes.

14 Q. And -- ah hah. I believe this is figure 10-1.
15 It's where I was going, you talked to us earlier about
16 bow-tie methodology. And so, my understanding is this is
17 an example of the -- the risk bow-tie; is that correct?

18 A. Yes, it is.

19 Q. Can you kind of walk us through this and explain
20 to us how we should read and interpret the risk bow-ties?

21 A. So the very high level, the circles --

22 MS. DUPRE-TOKOS: And you can get up, if you want, if
23 --

24 MR. NOEL: Yeah.

25 MS. DUPRE-TOKOS: -- that's easier for you.

26 THE WITNESS: Okay. So at the high level, the center

1 of the risk bow-tie, which is represented here by multiple
2 potential events that could occur. This is the -- the
3 foundation for the risk bow-tie, which is the risk event
4 itself, which defines the -- it's really the foundation
5 that we can anchor off to understand what's the
6 probability of that event occurring and what's the
7 associated consequence.

8 So here we have defined an event in numerous
9 ways, which would be either energized wires down, which
10 means the wire comes out of the air, it's on the ground
11 and that could be a potential risk for the general public
12 walking by and potentially being electrocuted. We also
13 have contact with energized conductor. The reason that's
14 been highlighted is that there is an inherent risk around
15 our transmission facilities specifically that we've had
16 issues in the past with individuals climbing our towers in
17 order to either intentionally or unintentionally get --
18 you know, defining those potential events that -- that
19 we-- that have occurred or could occur, we quantify the
20 driver that we previously talked about as a potential
21 factor that could contribute to the likelihood of that
22 event occurring.

23 On the other side of the bow-tie, we quantify the
24 consequences that define if that event were to occur, what
25 sort of negative outcomes could result? And those show up
26 in a number of forms including safety, and we quantify

1 that in our RAMP filing in terms of injury or fatality,
2 environmental, reliability, and then we have a number of
3 other factors that have been included in the past. But in
4 different iterations of our modelling, we've excluded or
5 included them. I think in this -- in the RAMP filing or
6 the subsequent proceedings, some of these components
7 around compliance, implications and trust have been
8 excluded, and financial has purely been accounted for only
9 in the economic evaluations of proposed mitigations.

10 Q. Okay. And just to make sure we understand the
11 terms "compliance" would relate to the regulatory
12 agencies, correct?

13 A. Yeah.

14 Q. CPUC, ISO, NERC, FERC -- however you need to list
15 them out.

16 A. I think you did a pretty good job there. And,
17 though, in this context it would be specific to the
18 consequences associated with this. So if we were found to
19 be out of compliance with a regulation, would there be a
20 potential fine or impact to our operations that could
21 adversely impact PG&E as a whole.

22 Q. And "trust" would refer to public trust in the --
23 the company?

24 A. Correct.

25 Q. And then financial would be the ultimate
26 financial affect -- I kept thinking punishment, it's not

1 necessarily punishment, it would be the financial effect
2 on the company in terms of, say, civil suits. That would
3 be the biggest one, correct?

4 A. Financial can take multiple forms.

5 Q. Okay. Other than, say, civil suits, what else
6 would be included in there?

7 A. For example, I think financial would be inclusive
8 of even just operating costs. So, for example, if we were
9 to lose a line that would tie into Diablo Canyon Nuclear
10 Power Plant that could make the nuclear generation
11 unavailable to the market, could put upward pressure on
12 market pricing, adversely impacting rates for our
13 customers.

14 So it's not just about profits or below the line
15 costs, but also financial impacts to our overall
16 operation.

17 Q. Okay. All right. So let's skip down here. Come
18 on, sucker. There is stuff that is highlighted that we
19 don't necessary need to talk about. So skip onto section
20 5 of 10, which is the current mitigation plan. And the
21 items listed in here, I assume, are the items -- the
22 mitigations that PG&E has taken to address the risks of
23 the overhead technology; is that correct?

24 A. So in this context, I think what would be helpful
25 is the -- the terminology and the modeling framework was
26 structured so that any investments that had been

1 previously made or were being made in the previous general
2 cases were considered controls and those were set at a
3 baseline. And then mitigations were defined as any
4 proposed incremental assessment to those investments to
5 those historic investments in our various risk mitigation
6 activities.

7 So if we were regularly replacing a hundred miles
8 of conductor a year, if we were coming into this GRC, we
9 would say that was just an existing control. If we said
10 we're proposing to go to 200 miles a year, that would have
11 been listed as a specific mitigation for the 2017 to 2019
12 GRC period. These are categorizations of different areas
13 of incremental investments we intended to make in our 2017
14 through '19 GRC filing.

15 Q. Okay. And so that -- that's what I was going to
16 ask. It says, "This mitigation will be performed on
17 approximate average of 70 circuit miles per year between
18 2017 and 2019."

19 Did I read that correctly?

20 A. Can you point me to where you're reading?

21 Q. Yes. It's right down here at the bottom. "This
22 mitigation will be performed on approximate average of
23 seven circuit miles per year between 2017 and 2019,
24 targeting primarily 60 kilovolt and 115 kV circuits."

25 Is that seven total or seven more than you've
26 been previously doing?

1 A. I would have to verify.

2 Q. Okay. Next one is insulator replacement. And
3 down at the bottom, it says, "This mitigation will be
4 performed on approximate average of 59 miles per year
5 between 2017 and 2019;" is that correct?

6 A. That is correct.

7 Q. And, again, is that 59 miles total or 59 miles
8 more than you were doing, say, in 2016?

9 A. I believe all of these are incremental, but I
10 would have to check.

11 Q. Okay. And then, section 16 is the proposed
12 mitigation plan. It says, "PG&E performed an evaluation
13 of all mitigations considered and had how each relates to
14 the TOHC risk drivers. The mitigations included in the
15 proposed plan are listed below. The mileages referenced
16 are approximations and may change as project plans are
17 completed and finalized."

18 Did I read that correctly?

19 A. Yes, you did.

20 Q. And it says, "M1D, this mitigation represents an
21 increase to the conductor replacement work previously
22 described in a mitigations M1A and M1B. To further reduce
23 exposure related to equipment failure conductor and
24 equipment failure connector hardware, wire-down drivers.
25 It increases overhead transmission conductor replacements
26 from an average of seven miles per year in 2017 to an

1 approximate average of 26 miles per year, 2022. 2020
2 through 2022."

3 A. That is correct. And I am going to clarify my
4 previous statement. My reference to the previously
5 approved mitigation plan, and then the incremental.

6 Q. Yes.

7 A. It's actually the '17 through '19 was the
8 previous GRC. The '20 through '22 is what we were
9 proposing to increase too.

10 Q. Okay. So '17 through '19, averaging seven miles
11 of conductor replacement per year, and the plan was to up
12 that to 26 miles per year in 2020 to 2022?

13 A. That is correct.

14 Q. Okay. And how were the -- how was the decision
15 made on what conductor was going to be replaced?

16 A. So the methodology for identifying what conductor
17 to replace as part of a proactive replacement program is
18 done by evaluating, leveraging the criteria set in the
19 asset management plans in whatever iteration of -- of plan
20 criteria that we have in place at that time. When we
21 identify new work on the transmission system, we are
22 identifying it for year six in our five-year plan.

23 Q. Uh-huh.

24 A. So at any given year, we are identifying work to
25 be initiated for five to six years down the road so that
26 the necessary early-stage planning activities can be

1 completed to execute on the time scale that the
2 transmission requires with multiyear permitting
3 engineering and construction activities.

4 The conductor replacements that are proposed for
5 2020 through 2022 would have likely been identified in the
6 2015 to '17 timeframe. So depending on the iteration of
7 asset management strategy in that period of time, that
8 methodology would have been used to prioritize what
9 circuits required replacement before others based on the
10 risk of those associated circuits.

11 Q. Right. And then by 2018, you're pushing that out
12 to 2023 and 2024 in terms of plans; is that correct?

13 A. That is correct.

14 Q. So I guess the ultimate question is, we know that
15 Caribou-Palermo was not slated for the conductor
16 replacement, how is a 100-year old line, a 100-year old
17 conductor that the company doesn't even know what it is
18 really or who manufactured it, not get slated for
19 replacement under this program?

20 A. Are you asking in 2017?

21 Q. Yes.

22 A. So in 2017, the Caribou-Palermo line was
23 evaluated against the set criteria in our asset strategy,
24 which took into account a number of factors. Based on
25 that calculation, it fell in the medium to high medium
26 risk area. I would have to look back in our -- our asset

1 management plan results to know exactly where it fell.
2 The driver for that is, although we had significantly
3 modified our asset management strategy in 2017 and '18 in
4 the wake of the 2017 North Bay fires, our methodology
5 accounted for -- was not 100 percent focused on just fire
6 risk but also risk to public safety, impacts to
7 reliability and other characteristics. As all of those
8 factors came into play. Those lines, they were a high
9 fire threat district that also served a significant amount
10 of customers and had poor performance historically moved
11 to the top of the list as far as highest risk, and then
12 while Caribou-Palermo was categorized on the top end of
13 our thousand lines that we quantify the risk for, it was
14 not the top of that list compared to the other assets
15 within our asset base.

16 Q. Okay. So you bring up the 2017 wildfires, is
17 there a procedure in place if the mitigation or
18 maintenance plan needs to be changed suddenly?

19 A. Say that one more time.

20 Q. Is there a procedure in place if the mitigation
21 maintenance plan needs to be changed suddenly instead of
22 going out six years?

23 A. You mean -- okay. So let me -- let me ground
24 myself. So the timeline associated with six years is
25 anchored on the fact that we need to get significant
26 permitting under California Environmental Quality Act for

1 major instruction. So that's an acknowledgment that there
2 is a long duration to rebuild transmission lines. If we
3 find facilities that need immediate replacement, we do
4 have emergency programs. In those programs that we walked
5 through major work category 70, major work category 94,
6 major work cate -- there's major work category 59 among
7 others that are emergency programs that are funding
8 available for immediate actions that need to be taken.

9 More often than not, immediate actions that
10 cannot allow for the necessary time to go through CEWA and
11 other long duration permitting will result in immediate
12 emergency repair in order to buy sufficient time to be
13 able to go through the necessary legal and regulatory
14 steps necessary for a full rebuild.

15 Q. Okay. And that leads to the next question, which
16 is these mitigations replacing 26 miles of -- of overhead
17 conductor, replacing a 139 miles of insulators, those are
18 separate and apart from any emergency repairs and
19 replacements you would have to make, correct?

20 A. That is correct.

21 Q. So for instance, like I said, 2017, with the
22 North Bay fires, there were transmission lines that were
23 heavily damaged and needed to be replaced, correct?

24 A. That is correct.

25 Q. And that would not figure into those -- what --
26 those lines that needed to be replaced would not figure

1 into the 26 miles or -- I'm sorry, the seven miles per
2 year, say, in 2018?

3 A. I believe that is correct.

4 Q. Okay. All right. And now we get to Chapter 11,
5 which is the section dealing with wildfire. You there?

6 A. Yes.

7 Q. Okay. And this section deals with identifying
8 risk of wildfires and what mitigations PG&E has put in
9 place to deal with those risks.

10 A. Yes.

11 Q. So it starts off, "Extreme weather, extended
12 drought and shifting climate patterns have intensified the
13 challenges associated with wildfire management in
14 California. Environmental extremes such as drought
15 conditions followed by periods of wet weather can drive
16 additional vegetative growth and influence both the
17 likelihood and severity of extraordinary wildfire events."

18 Did I read that correctly?

19 A. Yes, you did.

20 Q. And then, "Over the past five years, as we have
21 seen across California, inconsistent and extreme
22 precipitation, coupled with more hot summer days have
23 increased the wildfire risk and made it increasingly more
24 difficult to manage."

25 Did I read that correctly?

26 A. Yes, you did.

1 Q. It goes on, "The risk posed by wildfires has
2 increased in PG&E's service areas as a result of extended
3 period of drought, bark beetle infestation to the
4 California forest, and wildfire fuel increases resulting
5 from record rain fall following the drought among other
6 environmental factors.

7 Other contributing factors include local land use
8 policies and historical forestry management practices.
9 The combined effects of extreme weather and climate change
10 also impact this risk."

11 Did I read that correctly?

12 A. Yes, you did.

13 Q. Okay. So now, the main drivers. Vegetation,
14 contact with conductors, equipment failure and third party
15 contact, right?

16 A. That is correct.

17 Q. It goes on to say, "Managing wildfire risk is a
18 top priority for PG&E," and it goes through how much PG&E
19 is spending on wildfire mitigation, correct?

20 A. Yes.

21 Q. So Section 2, Risk Assessment. It defines the
22 risk. That is "PG&E assets may initiate a wildland fire
23 that endangers the public, private property, sensitive
24 land and/or leads to long duration service outages;" is
25 that correct?

26 A. That is correct.

1 Q. And it is designated as an enterprise risk?

2 A. Correct.

3 Q. Now, here, we also talk about Reax Engineering
4 and their simulation technology. Do you see that?

5 A. Yes, I do.

6 Q. And what do you know about Reax's fire
7 stimulation technology?

8 A. At a very high level, Reax modeled in some of the
9 characteristics of our system, our service territory,
10 including the timber and structures from a density
11 standpoint across our service territory. Built a model
12 that allowed for simulation of ignition at any point along
13 a transmission or distribution facility, and then ran
14 thousands of iterations to quantify what the potential
15 spread and associated consequence would be of an ignition
16 if it were to occur at the location.

17 That information, while being relative in nature,
18 was used to differentiate across the service territory to
19 quantify what areas, if an ignition were to occur, would
20 be more likely to see a widespread wildfire, and what
21 areas were more likely to see a widespread wildfire that
22 would impact greater amounts of timber and greater amounts
23 of structures, structures being a proxy per population
24 density.

25 That allowed us to differentiate across the
26 service territory in partnership with CAL FIRE and the

1 CPUC in order to define different regions that had
2 different levels of fire threat, and that is now known as
3 our high fire threat district, Tier 3 being the highest,
4 Tier Two, and then one the lowest.

5 Q. To your knowledge, was the Reax simulation ever
6 applied to the Feather River Canyon?

7 A. Yes. Reax modeled spread potential across our
8 entire service territory.

9 Q. And in footnote 13, it discusses the state of
10 emergency declared as a result of the drought by the
11 Governor in 2015; is that correct?

12 A. That is correct.

13 Q. And then we get to figure 11.1, the risk bow-tie
14 for wildfire. And if you can, can you talk us through how
15 to read this risk bow-tie?

16 A. Sure. The structures are very similar to the
17 previous -- the previous statement that I made with the
18 event being a wildfire initiated by PG&E assets within
19 fire index area. So this is quantified to look at
20 wildfire events as opposed to being widespread. It's not
21 focused on any ignition, an ignition at a pole that goes
22 nowhere or in the middle of a densely populated urban area
23 is not accounted for in this risk. This risk is focused
24 on widespread wild fire. The drivers associated with it
25 are quantified. This quantification is across the
26 transmission and distribution facilities holistically, and

1 shows that the highest exposure from a driver standpoint
2 is associated with vegetation. Vegetation coming in
3 contact with facilities, and then subsequently equipment
4 failure, which have been further broken down between
5 conductor hardware, other and conductor -- or sorry,
6 connector hardware, conductor and other. And we also have
7 third-party contact -- - animal, fuse operation and
8 unknown as general categories. From consequence
9 standpoint, we also have a similar rubric that breaks down
10 from safety splitting between injury and fatality,
11 environmental reliability, compliance, trust and
12 financial.

13 Q. Okay. So something like third-party contact,
14 there's not a whole lot that you can do to mitigate this
15 risk, correct?

16 A. Yeah, mitigations are limited.

17 Q. Right. You know, that involves people running
18 into power poles and knocking down energized lines to
19 mylar balloons blowing into transmission lines and causing
20 a -- an arc, correct?

21 A. That is correct.

22 Q. But equipment failure together is the second
23 highest cause -- risk of -- of starting a fire, correct?

24 A. As a subcomponent --

25 Q. Yeah.

26 A. It's a specific subcomponent of equipment

1 failure, yes.

2 Q. Right. So wildfire is the number one enterprise
3 risk, correct, at this point in time?

4 A. That is correct.

5 Q. And it's well known that we're in drought
6 conditions 2012 through 2017 throughout the PG&E service
7 area, correct?

8 A. That is correct.

9 Q. And other factors such as -- well, I -- where I'm
10 going with this is, we know we're in drought, we know
11 we're in the forest, we know that the Feather River Canyon
12 is a high wind area. We know that this is one of the
13 oldest lines in the inventory with parts that are 100
14 years old. So how is it that none of the mitigations
15 apply to doing any work on the Feather River -- or on the
16 Caribou-Palermo line?

17 A. So working out of memory, bear with me, I do want
18 to highlight the intent of the RAMP, Risk Assessment
19 Mitigation Phase, was for us to model the risk based on
20 actual data to move away from subject matter expert
21 informed risk quantification towards a more quantitative
22 risk quantification. In doing so, we laid out this
23 framework, which became the foundation for the models
24 themselves, then took input associated with the actual
25 historic data of causes. These are categories shown here
26 on the risk bow-tie that are at a much higher level than

1 the quantifications performed with the RAMP models
2 themselves.

3 Within the RAMP models, we differentiated between
4 equipment types. We've also differentiated between
5 transmission and distribution among other factors. In
6 doing so, we have identified what areas had the highest
7 risk in terms of number of failures per mile and number of
8 ignitions per mile. And ignitions given a wires-down or
9 given a failure. In order to be able to identify those
10 opportunities, it would, be for lack of a better term, the
11 biggest bang for the buck. Also divided mitigations from
12 a risk reduction standpoint by the cost to implement those
13 associated mitigations. What we've seen in this analysis
14 and continue -- and have seen in other analyses that have
15 supplemented this is that the number of asset failures and
16 associated ignitions -- fire ignitions that have occurred
17 have been in order of magnitude higher on the distribution
18 facilities than on transmission facilities. We have also
19 seen within the transmission data specifically, equipment
20 failure is actually the third highest cause. First,
21 animal-caused ignitions first, and then vegetation
22 followed by equipment failure.

23 Being that equipment failure for transmission
24 overhead, at this point in time, was seen in the data as
25 far lower than distribution, a lot of these results
26 promoted the concept of our -- the capital dollars that we

1 are approved to deploy by the CPUC will have a higher risk
2 reduction value if they are focused towards distribution
3 facilities.

4 That said, we still have continued to make
5 investments in transmission mitigations as shown up in our
6 transmission overhead RAMP filing and, subsequently, as
7 part of the wildfire portion of the RAMP filing, but the
8 data itself promotes the concepts that we actually have a
9 greater risk reduction across the service territory, if we
10 focus on vegetation management on the distribution
11 facilities, as well as replacement of overhead conductor
12 for distribution voltages.

13 Q. Fair enough. And animal is another one of those
14 categories that there's not a whole lot of -- that you can
15 do to mitigate the chance of an animal making contact with
16 a energized line, correct?

17 A. We have limited mitigations that we can employ --

18 Q. Right.

19 A. Insulating down guys. Putting raptor guards on
20 structures that can minimize the likelihood that a bird
21 would contact a ground piece of facility and an energized
22 piece of facility. Our ability to effectively mitigate
23 risks in a cost-effective way is rooted in the ability to
24 identify those locations that are more prone to bird
25 migration and we have built out an avian protection
26 program to target that mitigation appropriately.

1 Q. And it sounds like, for the most part, where it
2 says "animal," we're talking about birds for transmission
3 lines, correct?

4 A. For the most part. In terms of the wildfire
5 risk, I would -- I think that would be a safe assumption
6 make.

7 Q. Okay. Going down the Subsection C, the Drivers
8 and Associated Frequency. It starts off, "There were 486
9 fire ignitions associated with PG&E facilities that
10 occurred within the fire index area within PG&E service
11 territory during the two year period 2015 to 2016. These
12 486 ignitions, or an average of 243 per year, were related
13 to eight top-level risk drivers."

14 Did I read that correctly?

15 A. Yes, you did.

16 Q. And number one, vegetation. And "vegetation risk
17 driver accounts for 27 percent of the 243 ignitions or 91
18 per year," correct?

19 A. That is correct.

20 Q. And then next is D2, Equipment Failure Conductor.
21 "Failure of conductor resulting in wire down and fire
22 ignitions. All three equipment failure categories may be
23 influenced by weather and other environmental factors,
24 e.g.; corrosive environment. The equipment failure
25 conductor risk drivers account for 12 percent of 243
26 ignitions or 29.5 per year."

1 So basically, 29 and a half fires per year are
2 caused by conductor down -- wire-down events, correct?

3 A. That is correct.

4 Q. And then next is D3, Failure of Connectors,
5 Splices Or Other Connecting Hardware Resulting in Wire
6 Down and Fire Ignition. "The equipment failure, connector
7 hardware risk driver accounts for 6 percent of 243
8 ignitions or 15.5 per year," correct?

9 A. Yes.

10 Q. So in grand total, 45 fires per year started by
11 equipment failure related to wires down, either conductor
12 failure or connector hardware?

13 A. Correct.

14 Q. All right. Third-party contact amounts to about
15 38.5 per year. Is that it what it says?

16 A. Yes.

17 Q. Animals, 21.5 per year?

18 A. Yes.

19 Q. Fuses, five per year and unknown four and a half
20 per year?

21 A. Correct.

22 Q. All right. Now, can you kind of educate us on
23 reading this figure 11.2, Consequence Attribute.

24 A. Can you scroll down to give me the page, please?

25 Q. It's on 11.9. Do you understand how to read this
26 table?

1 A. Yes, I do. And just familiarizing myself again,
2 so I can make sure I don't misspeak. So this table
3 summarizes a number of the assumptions -- modeling
4 assumptions that went into the RAMP model. And the
5 easiest way for me to articulate what is showing here is
6 that when you think about some of the -- the data that we
7 just talked about, that's average data. So we have an
8 average data point per year. Averages are very hard to
9 model because they take all of the asymmetry out of the
10 risk profile, out of the model and so they can really
11 water down the effectiveness of the model.

12 In this instance, we wanted to be more deliberate
13 in the way that we model the likely consequence associated
14 with an event occurring. So while we have data on what
15 the highest potential spread from an acreage standpoint
16 could reasonably be in a -- based on historic data as well
17 as a smaller end of the spectrum, and then the average, we
18 need to be able to define what the probabilistic
19 distribution looks like so when we model thousands of
20 iterations of simulations on our data, we can come up with
21 statistical resulting consequences.

22 In this table, we summarize some of those
23 assumptions which quantify safety, injuries and fatalities
24 as leveraging in Poisson distribution, which is a discrete
25 distribution taking into account that you can't have half
26 of a fatality, and it quantifies that the expected outcome

1 is approximately 5.89 in the overall distribution with --
2 which shows the -- the distribution that was modeled into
3 the RAMP. The Poisson is the -- and the characteristics
4 of them are reflected in the second column. In the third
5 column, we show both the -- the expected cost per acre.
6 As well as the average number of acres burned for a
7 wildfire event. You can see that the -- that the
8 environmental consequence for the average number of
9 acreage burned is represented by an exponential curve as
10 diminishing so it's much more likely to see a wildfire
11 with a smaller number of acres than it is to see the tail
12 end event, but there is material likelihood that you can
13 see a very large scale wildfire. That similar
14 distribution is used for the average number of customer
15 events impacts from a reliability standpoint. Again,
16 low -- low -- high frequency of low consequence events,
17 lower frequency of high consequence events, but instead of
18 modeling those as point assumptions, we built in the
19 distribution to reflect the entire spectrum and that goes
20 all the way down to -- the final example on the chart is a
21 lot normal distribution of potential claims associated
22 with those events occurring and the associated statistical
23 characteristics of each one of those curves.

24 Q. So ultimately down at the bottom in -- and it's
25 framed in heavy black, it says, "MARS totals 257.58."
26 What does that mean?

1 A. So reference to MARS ties back to the safety
2 frame -- quantification framework that was originally
3 intended to be defined through the SMAP proceeding.
4 Fortunately, that ran parallel with this map -- with this
5 RAMP proceeding. So PG&E used the current formula that
6 had been developed to date in the SMAP proceeding and used
7 that to inform its model in this RAMP. MARS stands for
8 Multi Attribute Risk Score. And it's a way to quantify in
9 a single score the aggregate risk across all of these
10 consequence dimensions. There's a methodology for doing
11 so. Taking a value and normalizing by the potential range
12 of that value, and then provided weightings in order to
13 weigh it differently across the different components but
14 ultimate getting -- getting to a consolidated number.

15 I will give you an example: one injury and one
16 fatality are not equivalent. What we've done in this mode
17 was leveraged industry literature to try and quantify the
18 relative number of injuries that would be approximately
19 equivalent to a fatality from a societal standpoint. I
20 don't remember the order of magnitude of the multiplier.
21 A similar quantification was done to try and normalize the
22 units across environmental impacts, tying those back to
23 the equivalent reliability impacts. So at the end of the
24 day, risk quantification can be done for an investment
25 that would have a greater risk reduction on the
26 environment comparing to one that would have a greater

1 risk reduction from a reliability standpoint so that those
2 can be compared apples to apples. That MARS framework is
3 defined in this filing, and I can't recall the exact
4 calculation at this point in time, but it has
5 subsequently evolved with stakeholder interaction through
6 the SMAP proceeding.

7 Q. So is 257.58, is that a big number or small
8 number, I guess?

9 A. I -- I --

10 Q. I'm not understanding a whole lot of how this is
11 done or what it means.

12 A. This one is just illustrative.

13 Q. Okay.

14 A. I don't recall the scale. I would say that the
15 intent is to become a unit list indices so it is relative
16 number looking at the risk reduction across different
17 mitigations. Those numbers were compared and a higher
18 number remember would be more risk than a lower number for
19 example.

20 I think this calculation was used to come up with
21 a before and after. We would run this calculation on the
22 -- the status quo risk. Run the calculation after the
23 proposed mitigation was complete. The difference between
24 the two is the reduction in risk. That was then put into
25 a risk spent efficiency calculation, which would take the
26 reduction in risks divided by the cost to achieve that

1 reduction of risk and that allowed us to identify what
2 investments we were proposing in our general rate case for
3 the biggest bang for their buck.

4 Q. Okay.

5 BY MS. DUPRE-TOKOS:

6 Q. So without a scale or without any of the other
7 information that you just explained to us, that MARS
8 number is essentially useless in terms of figuring out
9 anything right now?

10 A. That is correct. This is -- I think this was
11 intended to be illustrative, but the total number doesn't
12 represent anything on an absolute basis.

13 BY MR. NOEL:

14 Q. All right. And then we go into Section 3, The
15 Controls and Mitigation. And specifically what I want to
16 talk about is C-1. And it talks about the overhead
17 patrols and inspections and their role in mitigating the
18 wildfire threat or risk; is that correct?

19 A. That is correct.

20 Q. So it states, "PG&E patrols and inspects its
21 overhead electric facilities to identify damaged
22 facilities and other conditions that may pose a risk of
23 wildfire ignition. Patrols and inspections are performed
24 annually in high risk wildland, interface areas and
25 bi-annually in rural areas. Any corrective actions
26 required in wildland, interface areas receives priority

1 treatment and are scheduled and tracked to completion
2 prior to the fire season. Maintaining an auditable
3 documentation of patrol and inspection activity and
4 findings is another key program feature. This control
5 reduces exposure to all wildfire risk drivers."

6 Did I read that correctly?

7 A. Yes, you did.

8 Q. So, am I understanding this correct that
9 inspections and patrols play a huge role in mitigating the
10 wildfire risk?

11 A. You read that correctly.

12 Q. Okay. So if inspection and patrols aren't
13 actually being done to identify potential wildfire risks,
14 then you can't mitigate those risk, correct?

15 A. The effectiveness of inspection as a mitigation
16 would be reduced if the inspections are not performed,
17 yes.

18 Q. Okay.

19 A. And if I may, I do want to make one
20 clarification.

21 Q. Sure.

22 A. Just so it wasn't misleading. I did reference
23 that lever -- how we leveraged Reax to calculate the
24 different -- to quantify the different tiers from a high
25 fire threat district standpoint.

26 Q. Right.

1 A. I think that may have occurred and been approved
2 by the CPUC just subsequent to this RAMP filing so I
3 wanted to clarify that the time -- or definition of the
4 current high fire threat district as it's defined today,
5 may have occurred just subsequent to this filing.

6 Q. Okay. You're referring to the high fire threat
7 map that was adopted by the CPUC starting January 1, 2018,
8 correct?

9 A. That is correct.

10 Q. Okay. Make sure we got that clear. I think we
11 have handled just about everything in this.

12 All right. So next up, let's go own to 1346.
13 Should be in the stack here.

14 MS. DUPRE-TOKOS: Marc, I think we should take a
15 break now.

16 MR. NOEL: Let's finish up a couple of things and
17 then we will take our -- if it's okay, then we will take
18 a break.

19 GRAND JURY FOREPERSON: Yes.

20 BY MR. NOEL:

21 Q. All right. So you see 1346? Should be in the
22 stack right there in front of you.

23 A. Yep. Here it is.

24 Q. Do you recognize 1346?

25 A. Yes.

26 Q. What is 1346?

1 A. Exhibit 1346 is an advanced authorization for Big
2 Bend, Palermo 115kV NERC mitigation project.

3 [Exhibit No. 1346 was identified.]

4 BY MR. NOEL:

5 Q. Okay. Thank you. And what was the Big Bend
6 Palermo 115 NERC project?

7 A. The big bend Palermo 115kv NERC mitigation
8 project was a project developed to correct discrepancies
9 identified in response to -- I believe, it was 2010 NERC
10 alert requesting that all utilities, all transmission
11 operators in the nation, evaluate the as-installed
12 characteristics of their transmission facilities to make
13 sure that the ground to conductor clearance met the
14 original design criteria. And in many instances across
15 the nation, utilities found that for a number of different
16 reasons, conductor to ground clearances had been lower
17 than intended to maintain public safety, so NERC directed
18 each utility to develop a plan to work to clear all of
19 those discrepancies over time. This was one project of
20 many to increase ground to conductor clearances across
21 PG&E system. And it was specify to this line section.

22 Q. What I want to focus on most in this AA is
23 Section D, the cost recovery. I believe it's on the
24 second page. Have you found that?

25 A. Yes.

26 Q. It states, "The company expects to recover the

1 project cost through a future Federal Energy Regulatory
2 Commission (FERC), transmission owner's rate case."

3 Can you explain briefly what that means?

4 A. Yes. As I mentioned earlier, on the distribution
5 side, we filed a general rate case with the CPUC. That
6 rate case sets revenue requirements from our distribution
7 business and it occurs on a three-year cadence. The FERC
8 transmission owner rate case is an equivalent rate case
9 put on our transmission investment. The rate case is
10 filed on -- I guess, has historically been filed on an
11 annual basis, is filed with FERC, and give us -- gives
12 PG&E authorization to collect revenues necessary to make
13 investments such as this in our infrastructure.

14 Q. And it's essentially the money you get from the
15 transmission owners case rate, the capital budget through
16 transmission side?

17 A. Technically it would be the capital and expense
18 budget for the transmission side.

19 Q. This goes on to say, "And to earn the authorized
20 return on equity established in that proceeding."

21 Can you explain to us what that means?

22 A. Yes. There are two types of financial outlays
23 for PG&E as a regulated utility in our regulated decoupled
24 business model. An expense is identified under capital
25 accounting guidelines as investment in maintenance ongoing
26 operations and investments in full replacement of some

1 assets that don't meet criteria for being a unit of
2 property. Those expenses are incurred and recovered
3 through customer rates in the year they're incurred, so if
4 PG&E spends one dollar a year, the amount of revenue is
5 expected to be collected is one dollar to account for that
6 with no return on equity.

7 Capital is different. Capital is intended to be
8 focused on long-term investments in units of property that
9 are expected to have a useful life over a period of time.
10 So an example would be if I was going to build a new
11 transmission line, the cost of that new transmission line
12 would not be put into our revenue requirement and,
13 therefore, our customers would not pay for the entire cost
14 of that line in the year that it was placed in service,
15 but rather it would be placed in service and accounted for
16 in our rate base, and then customer rates would pay for
17 the portion of that asset that is depreciated on annual
18 basis over the expected accounting life of that asset,
19 plus a return on equity.

20 The return on equity represents the expected
21 return that an investor could expect to get from the
22 market given an investment in a -- an asset with a similar
23 risk profile. So if you were able to identify a utility
24 with the exact financial risk profile as PG&E, the
25 expected return of investing in a share of that company
26 would be the same as the expected return of investing in a

1 share of PG&E. That allows -- that framework allows PG&E
2 to go to the market to secure capital to make investments
3 in our infrastructure, and that expected return on equity
4 is equitable with the risk profile of the company's
5 outlays allows for that attraction at a lower cost. And
6 there's a more robust process at FERC define what the
7 actual risk profile of the company is and the associated
8 return on equity necessary for that risk level. That is
9 definitely outside of my purview.

10 Q. So if from a -- how do you figure from an
11 accounting standpoint the lifecycle of an asset?

12 A. We have industry experts, those that tend to
13 participate in these proceedings for multiple utilities
14 that will bring a variety of different pieces of
15 information to bear to quantify the expected timeline that
16 an asset remains in service. The -- that timeline is in
17 some instances called an "expected life." I do want to
18 quantify that it is solely representative of the time that
19 that asset is intended to be in service. That takes into
20 account assets that would be placed into service and only
21 removed from service when they are no longer functioning,
22 but it also accounts for assets that are placed in service
23 that are subsequently removed before getting to the point
24 of no longer functioning because of the need to modify. A
25 capacity increase, a need to relocate facilities because
26 of a road widening or freeway coming in. So it averages

1 across all of that based on industry specific information
2 to come up with an accounting expected life of an asset.

3 Q. All right. Let's move on to 1347. Do you have
4 1347 there in front of you?

5 A. Can we take a quick break or are we almost there?

6 Q. We still have a couple of more things to do. I
7 guess you're right, it is 3:00. We can take a break and
8 come back and try and finish up real quick.

9 GRAND JURY FOREPERSON: Okay. We will take a
10 15-minute break.

11
12 [Recess was taken from 2:57 p.m. until 3:33 p.m.
13 whereupon the grand jury comes to order in Courtroom 9.]
14

15 GRAND JURY FOREPERSON: Okay. All members of the
16 grand jury are present and ready to proceed after the
17 break. We can bring the witness in.

18 [Witness enters the courtroom.]

19 GRAND JURY FOREPERSON: Mr. Gabbard, you're still
20 under oath. Just a reminder.

21 THE WITNESS: Understood.

22 BY MR. NOEL:

23 Q. All right. Mr. Gabbard, you should have in front
24 of you exhibits 1347 and 48. We will start with 47 and
25 ask you if you recognize the document that is 1347?

26 A. Yes, I do.

1 Q. And same with 1348, do you recognize that
2 document?

3 A. Yes, I do.

4 Q. All right. And what is 1347?

5 A. 1347 is a gate one authorization for the
6 Caribou-Big Bend 115kV NERC project.

7 [Exhibit No. 1347 was identified.]

8 BY MR. NOEL:

9 Q. Okay. And what is a gate one authorization.

10 A. Gate one is an -- is a first authorization of two
11 authorizations to authorize initial work activities to
12 proceed associated with a given project. In this case,
13 author -- gate one authorization is for detailed
14 environmental and land planning including completing
15 cultural and biological evaluations and obtaining
16 pertinent permits including a notice to proceed and
17 procuring all long leave materials. That also includes
18 any engineering required to support those processes.

19 Q. Now, can you turn to page two of the document in
20 section entitled objection statement.

21 Do you have that?

22 A. Yes.

23 Q. All right. And reading from the objective
24 statement, it says, "Upgrade the big" -- "the
25 Caribend[sic]" -- it's getting late in the day. "Update
26 the Caribou-Bend Bend 115 kV line to comply with the NER

1 requirements by replacing 58 lattice steel towers with
2 tubular steel poles, H frames, retrenching 15 spans,
3 reconductoring 27 span and replacing hardware on 42 spans
4 releasing the operations in December 2019 and completing
5 the project by March 2020."

6 Did I read that correctly?

7 A. That is correct.

8 Q. And that -- of course, reading that without
9 including the parenthesis. Oh, I'm sorry, I said
10 "update," it should be "upgrade the Caribou-Big Bend 115
11 kV line," I'm told.

12 So on Friday, we talked about preventative
13 maintenance on the Caribou-Palermo line, the 115 kV line
14 and one of the things that we talked about was the NERC
15 project and that that was preventative maintenance.

16 Do you recall that?

17 A. I recall talking about the NERC project, I
18 don't -- I don't recall referencing preventative
19 maintenance.

20 Q. Okay. Basically, the Caribou-Big Bend 115 kV
21 NERC project solely by its own objective statement is to
22 meet compliance with NERC clearance standards, correct?

23 A. That is correct.

24 Q. And there was nothing additional being done for
25 safety or environment, correct?

26 A. There are safety and environmental benefits, but

1 that was the driver for the project was to meet the NERC
2 alert.

3 Q. Right. But when you're doing this, the -- the
4 work that's eventually going to be done -- we will get
5 into that in just a second -- is solely to make the line
6 compliant with the NERC clearance requirements, correct?

7 A. That is correct.

8 Q. No additional work was being scheduled as part of
9 that project solely for safety or environmental?

10 A. Not at this point in time, no.

11 Q. Okay. And then down below are the overview,
12 under background, it says, "The Caribou-Big Bend 115 kV
13 line was built in the 1940s and is approximately 37 miles
14 in length, running from Caribou powerhouse to the Big Bend
15 substation near Oregon City, California."

16 Do you have any idea where that information that
17 the line was built in the 1940s came from?

18 A. I do not.

19 Q. It goes on to say, "The Caribou-Big Bend NERC
20 project" -- "115 kV NERC project is required to meet
21 California Public Utilities Commission, (CPUC) G095" -- or
22 general order 95, "requirements of minimum allowable
23 vertical clearances." And then goes through the history,
24 correct?

25 A. That is correct.

26 Q. And then 1349 --

1 MS. DUPRE-TOKOS: 1348.

2 BY MR. NOEL:

3 Q. 1348, I'm sorry, is the project scope document,
4 correct?

5 A. That is correct.

6 [Exhibit No. 1348 was identified.]

7 BY MR. NOEL:

8 Q. And this document actually lays outs all of the
9 specific work that is going to be done within the project,
10 correct?

11 A. That is correct.

12 Q. So, for instance, on tower 27/222. If you skip
13 to -- oops, went the wrong way. Page 20. The bottom of
14 page 20, it talks about span 27/221 to 27/222, and says,
15 "Pedestrian access only, no mitigation required."

16 Do you see that?

17 A. Sorry, can you direct me, again, where you're
18 looking?

19 Q. The very bottom of page 20. It would be line
20 item 84.

21 A. Yes, I see that.

22 Q. So that would indicate that this project is not
23 going to include any work on 27/222, correct?

24 A. That is correct.

25 Q. And some of those towers, as you go through them
26 in these spans, it's indicated that the conductor is going

1 be replaced for that span. For instance, if you look at
2 item number 85, on the top of 21, span 27/224 to 27/225 to
3 27/226. And number six or "VI" below that, conductor
4 time, 5-- 452.3 kV MIL 30/7 APFR, would that indicate that
5 that span of conductor is being replaced?

6 A. I don't believe that that is referencing a
7 replacement conductor.

8 Q. Okay.

9 A. I think item 86 below that would be more
10 representative of a replacement of conductor.

11 Q. Okay.

12 A. You can see "replace conductor that is no longer
13 being manufactured," and then it clearly calls out the
14 existing conduct type and then the proposed new conductor
15 type.

16 Q. Okay. All right. Thank you.

17 MR. NOEL: I know it's hard to believe, but I think
18 that is finally it --

19 MS. DUPRE-TOKOS: Well, from us.

20 MR. NOEL: -- from me. Well, the jurors have a
21 chance to ask you questions, they're asked to write their
22 questions down in writing, submit them to myself and
23 Ms. Dupre-Tokos and madam foreperson. It looks like the
24 jurors have some questions. So if you can give us just a
25 second, we can get those together and review them, and
26 then I will read the juror's questions to you.

1 THE WITNESS: Okay.

2 MR. NOEL: Thank you.

3 Okay. The following are the questions from the
4 jurors themselves.

5 When did you first hear the phrase "dead-end
6 attachment hardware"?

7 THE WITNESS: Dead-end attachment hardware?

8 MR. NOEL: Yes.

9 THE WITNESS: I don't know.

10 MR. NOEL: Okay. When did your first learn that worn
11 C-hooks and worn suspension plates were significant risk
12 for catastrophic failure with transmissions structures?

13 THE WITNESS: I was familiar with C-hooks as a
14 component on the transmission infrastructure for some
15 period of time, but the focus on C-hooks as a failure
16 motive within our transmission infrastructure was
17 significantly heightened post the Camp fire event.

18 MR. NOEL: So would you say pre Camp fire, the
19 C-hooks and suspension -- the -- the hanger pulls were
20 essentially a run to failure component?

21 THE WITNESS: No. Pre Camp fire, the C-hooks were
22 considered one component as part of hardware
23 interconnecting our insulators and our structures.

24 MR. NOEL: Right. But essentially, was the policy
25 towards those -- that -- the hardware run to failure?

26 THE WITNESS: My assumption prior to was that it was

1 the -- the C-hooks were managed similar to the rest of
2 hardware, which was run to condition as informed by our
3 inspection program.

4 MR. NOEL: But if your inspection program wasn't
5 actually looking at the C-hooks that you've never
6 identified them as having a condition that needed
7 replacement, correct?

8 THE WITNESS: Potentially, yes.

9 MR. NOEL: And there was no preventative maintenance
10 program for replacement of -- of C-hooks?

11 THE WITNESS: Only for replacing when replacing
12 insulators or structures.

13 MR. NOEL: How many miles of overhead transmission
14 lines does PGE operate?

15 THE WITNESS: How many miles?

16 MR. NOEL: Yes, sir.

17 THE WITNESS: Transmission only?

18 MR. NOEL: Yes.

19 THE WITNESS: Just over 18,000 miles.

20 MR. NOEL: How long would it take to complete
21 insulator and associated hardware replacement at 56 miles
22 per year?

23 THE WITNESS: 3,600 years. I may be mistaken on
24 that.

25 MR. NOEL: All right. And if we took that up to the
26 139 miles per year in the RAMP? 139.

1 THE WITNESS: 139? Can I have a piece of paper?

2 MS. DUPRE-TOKOS: Do you want a calculator?

3 THE WITNESS: Please.

4 MS. DUPRE-TOKOS: It would be faster.

5 THE WITNESS: So you're saying 139 miles per year?

6 MR. NOEL: Yeah. I believe that was the figure out

7 of the RAMP. If we were replacing insulators at 139 miles

8 per year, how long would it take to replace all the

9 insulators?

10 THE WITNESS: Sorry. I locked it. My mistake. Long

11 day.

12 MR. NOEL: It is.

13 THE WITNESS: 130 years.

14 MR. NOEL: All right.

15 MS. DUPRE-TOKOS: Did you want to do the other one as

16 well, the first one?

17 THE WITNESS: Probably. What was the previous

18 question?

19 MR. NOEL: If we were doing at 56 miles per year.

20 THE WITNESS: 320 years. I added a zero.

21 MR. NOEL: Do you believe that such diffuse

22 decisionmaking does or should absolve everyone involved

23 from the responsibility for the decisions that and/or

24 consequences of those decisions as to the Camp fire?

25 THE WITNESS: Can you read that one more time?

26 MR. NOEL: Do you believe that such diffuse

1 decision-making does or should absolve everyone involved
2 from responsibility for decisions and/or consequences in
3 referring to the Camp fire?

4 THE WITNESS: I don't know if I can answer that
5 question.

6 MR. NOEL: Okay. Do you believe that managers on
7 your level should have more direct experience of patrol
8 and inspection procedures?

9 THE WITNESS: For my position?

10 MR. NOEL: Yes.

11 THE WITNESS: I do not.

12 MR. NOEL: Have you personally ever flown a detailed
13 aerial inspection along any electrical transmission line
14 or circuit?

15 THE WITNESS: I have not.

16 MR. NOEL: Do you believe that such experience might
17 accurately inform strategies based on those inspections?

18 THE WITNESS: Possibly.

19 MR. NOEL: If you have no information on which to
20 rate an asset and cannot obtain that information, would it
21 be recommended to actually replace that asset in order to
22 accomplish a validation baseline?

23 THE WITNESS: My recommendation would be to complete
24 an inspection to obtain information regarding the asset
25 before recommending replacement.

26 MR. NOEL: If, as you said on Friday, you do not know

1 if any of the information you're using to "inform your
2 asset management strategies is true," how can you support
3 a strategy based in a metric based on information that you
4 don't know is true?

5 THE WITNESS: So I know that a large portion of the
6 information that were relied upon to develop our asset
7 management plans is, in fact, correct. Where I have
8 reason to believe information is not correct, that is
9 taken into consideration. And in our business, in the
10 complexity of operating utility across the 70,000 square
11 miles of service territory that we operate, I am relying
12 on trust of my peers and the broader organization of north
13 of 20,000 employees in order to be able to successfully
14 operate. So there is a bit of trust that I need to have
15 in any counterparts, my subordinates and in my leaders in
16 order to be able to effectively perform in my job.

17 MR. NOEL: So are you saying that you're making
18 decisions involving life, death and extreme danger based
19 upon somebody else's simply saying "I said it so it must
20 be so"?

21 THE WITNESS: No, our -- the information relied upon
22 in our asset management plan is not just anecdotal. It's
23 collected by numerous processes sourced in systems of
24 record that are reviewed by many different individuals and
25 it's on that basis that I have a bias towards trusting the
26 information unless I have reason to believe otherwise.

1 MR. NOEL: Does it concern you that you are working
2 in a corporate structure that is so compartmentalized that
3 with few exceptions no one can say who is responsible for
4 making any given decision?

5 THE WITNESS: I don't believe that statement is
6 correct.

7 MR. NOEL: Do you believe that if a decision is made
8 by a group committee, decision tree, or protocol metric
9 that everyone involved in that group committee, et cetera,
10 should be equally responsible for that decision and its
11 consequences?

12 THE WITNESS: Potentially.

13 MR. NOEL: If it was not within your purview to
14 review and improve forward-looking preventative
15 maintenance, then whose management purview would that be
16 under?

17 THE WITNESS: That would have been under my
18 counterpart, senior director of transmission line
19 operations.

20 MR. NOEL: That's Mr. Back?

21 THE WITNESS: Or his predecessors.

22 MR. NOEL: Was Mr. Back and his predecessors.

23 In PGE steel structure strategy plan in the short
24 term 2017 plan, of the 11 bullet points shown, none
25 mention safety or wildfire safety.

26 Can you tell us why not?

1 THE WITNESS: Can you pull back up those bullet
2 points?

3 MR. NOEL: Sure. Let's see, I think that was 1253.
4 There we go.

5 THE WITNESS: So as I previously stated, I did not
6 write these bullet points so I don't know the intent or
7 the reasoning from the author, but any interpretation is
8 that safety and also wildfire risk is rooted in many of
9 these, if not all. But the actual callout of safety in
10 the -- each action item wasn't necessary to identify the
11 area of focus.

12 MR. NOEL: Do you personally hold yourself
13 responsible in any measure for the corporate or
14 operational culture that resulted in the Camp fire and its
15 consequential damage?

16 THE WITNESS: As a leader within PGE, I hold myself
17 responsible for making sure that we're continuously
18 improving the way that we safely and reliably operate our
19 transmission infrastructure.

20 MR. NOEL: Okay. We understand that, but do you
21 personally hold yourself responsible in any measure for
22 the culture, the operations that resulted in the Camp
23 fire?

24 THE WITNESS: I do not believe there is anything I
25 could have done within the context of my position to
26 change the outcome that occurred in 2018.

1 MR. NOEL: All right. You started in that position
2 in 2017, correct?

3 THE WITNESS: That is correct.

4 MR. NOEL: I think when we talked before, we compared
5 your position to being the first mate on the Titanic and
6 being handed the wheel with the iceberg in sight; is that
7 correct?

8 THE WITNESS: Correct.

9 MR. NOEL: So if there was anyone who would be
10 responsible, it would have been your predecessor?

11 THE WITNESS: I can't answer that.

12 MR. NOEL: And I guess I never did ask you that, who
13 was your predecessor?

14 THE WITNESS: My predecessor was Man Ho Yeung.

15 MR. NOEL: Do you need that spelling?

16 THE COURT REPORTER: Yes.

17 MR. NOEL: It's common spelling.

18 THE WITNESS: M-A-N, H-O, Y-E-U-N-G.

19 MR. NOEL: Have you participated in the development
20 of patrol and inspections training and procedures?

21 THE WITNESS: I have not.

22 MR. NOEL: We have some work charts, one of which is
23 labeled electric asset management and you're the senior
24 director of transmission asset management. Another is
25 labeled electric operations. Explain, please, in simple
26 language the difference between these two groups?

1 THE WITNESS: Electric asset management is
2 subordinate to electric operations. Electric operations
3 is defined as the senior vice president level.

4 Electric asset management starts at the vice
5 president level.

6 MR. NOEL: Did you ever in your position as senior
7 director of transmission asset management directly or
8 indirectly inform those management levels to whom you
9 reported of the prominent enterprise risks of wildfire and
10 their apparent relationship to deteriorated and
11 dilapidated infrastructure?

12 THE WITNESS: Yes.

13 MR. NOEL: And do you recall to whom you reported
14 that?

15 THE WITNESS: I was a part of our risk management
16 processes and had the opportunity to communicate the risk
17 and associated mitigations to many of our senior officers
18 through our integrated planning processes.

19 MR. NOEL: And which senior officers?

20 THE WITNESS: I don't recall all of the names.

21 MR. NOEL: Would one of them have been your direct
22 supervisor, Kevin Dasso?

23 THE WITNESS: Yes.

24 MR. NOEL: And would another have been Mr. Dasso's
25 direct supervisor Patrick Hogan?

26 THE WITNESS: Yes.

1 MR. NOEL: And would it also include the president
2 Geisha Williams?

3 THE WITNESS: Yes.

4 MR. NOEL: Do you recall what you told the senior
5 officers about the wildfire risk and the relationship with
6 deteriorated, dilapidated infrastructure?

7 THE WITNESS: Specifically, no. Generally, the
8 information that I would have communicated would be
9 consistent with our 2017 RAMP filing.

10 MR. NOEL: And do you remember when these briefings
11 occurred?

12 THE WITNESS: I do not.

13 MR. NOEL: Were you ever involved in any capacity in
14 PG&E deliberations regarding infrastructure project
15 proposals for replacing deteriorated and/or dilapidated
16 infrastructure that resulted in such project proposals
17 being canceled or not approved?

18 THE WITNESS: I don't believe so.

19 MR. NOEL: Does population density have anything to
20 do with the attention given to specific towers?

21 THE WITNESS: Yes.

22 MR. NOEL: Why is there specialized attention given
23 to towers in corrosion zones but no specialized attention
24 given to towers in high wind mountain areas?

25 THE WITNESS: So I can't categorically say that
26 special attention isn't provided to facilities in zones

1 susceptible to higher winds. We actually design to a
2 higher standard for facilities that are sited in high wind
3 areas. In terms of corrective actions, I would say that
4 my belief is that our industry, as well as PG&E in my
5 organization, are better informed in the impacts and the
6 visible degradation associated with corrosion. I believe
7 that our industry is not as mature in terms of
8 understanding the short and long term implications of wind
9 exposure.

10 MR. NOEL: Part of your job is to identify work for
11 six years out, why was there never any work scheduled for
12 assets approaching 100 years -- 100 years old as a
13 deteriorating asset?

14 THE WITNESS: Is that in reference to
15 Caribou-Palermo?

16 MR. NOEL: Yes. And, obviously, she put in the
17 caveat "other than mandated work such as the NERC
18 projects"?

19 THE WITNESS: Understood. Specific to Caribou --
20 Palermo, as I alluded to previously, we had in-flight in
21 our portfolio, the NERC alert projects from the
22 Caribou-Big Bend to Caribou-Palermo. Those projects were
23 originally scoped and initiated to comply with the NERC
24 alert in 2010.

25 Through the process of detailed engineering, the
26 project team did identify opportunity to potentially

1 expand scope, opportunity wasn't under evaluation. As a
2 result, the timeline for gate to authorization was
3 actually pushed out to do further assessment;
4 unfortunately, the line itself was put on a permanent
5 outage and retired in place prior to proceeding with those
6 activities. So too late for that work to be complete
7 prior to 2018.

8 MR. NOEL: Where would we find documents pertaining
9 to this proposed work that was going to be added to the
10 NERC projects?

11 THE WITNESS: I'm not sure.

12 MR. NOEL: As a senior director, upper-management
13 involved in assessing information from the field --
14 qualified-field experts, is one of the factors to
15 determining your risk to asset -- okay. Let me reread
16 that. I think I screwed it up.

17 As a senior director involved in assessing
18 information from the field, is one of the only factors to
19 determining your risk to assets -- I'm still having
20 trouble with it.

21 Are there processes in place to mitigate having
22 no data, falsified data or incomplete data from the field?

23 THE WITNESS: So as I previously noted, there are
24 processes in place to leverage existing data to supplement
25 missing data. Proxy data can be applicable in many
26 instances.

1 If data is missing or found insufficient, there
2 was no alternate data available to leverage in its place,
3 then we would initiate a field engagement in order to
4 collect additional information.

5 MR. NOEL: Have you or members of your team to your
6 knowledge authorized notification extensions that you
7 personally were informed about or were notified through
8 documents? So in other words, an LC notification has been
9 created, it sets a timeframe for when the work needs to be
10 done, have you personally ever done extensions on those
11 notifications or reviewed extensions done by people on
12 your team?

13 THE WITNESS: In my position, I was not a part of the
14 extension process for the LC notifications. So I have not
15 been a part of that approval process.

16 MR. NOEL: Finally, we've heard testimony about a
17 compensation formula for bonuses. Would you please
18 explain your compensation formula for bonuses?

19 THE WITNESS: Can you tell me what point in time?

20 MR. NOEL: When you were the transmission asset
21 management, the senior director, prior to the Camp fire.

22 THE WITNESS: So in general, bonuses are structured
23 to -- to be set on a target percentage depending on
24 position. For example, 15 percent of base salary would be
25 the target bonus. Those target values are then multiplied
26 by company multipliers that is calculated based on

1 performance against fixed metrics that are established at
2 the beginning of the year, and that can range from zero
3 to, I believe, upwards of 1.5 or 2, somewhere in there.
4 Then it's also multiplied by a personal multiplier based
5 on individual performance for the year, based on a review
6 process that occurs at the end of the year. Looking at
7 how an individual performs against their objectives. And
8 that, again, can range from anywhere from zero to 1.8, I
9 believe.

10 So those multipliers depending on individual
11 performance and company performance can translate to a
12 bonus that is somewhere between zero percent and somewhere
13 north of a target percentile for an individual position.

14 MR. NOEL: So for instance, if you're base salary was
15 100,000 then you start off with a target of 15,000,
16 correct?

17 THE WITNESS: That is correct.

18 MR. NOEL: And on that, what would be the maximum
19 bonus that you could get?

20 THE WITNESS: I don't know the answer to that
21 question.

22 MR. NOEL: And how much were those bonuses tied to
23 safety?

24 THE WITNESS: I don't know the answer to that
25 question. I'm varying the -- the metrics and the
26 percentage of those metrics under different categories

1 fluctuated year over year.

2 MR. NOEL: So, for instance, 2017 was a very bad year
3 in terms of safety metrics. Do you recall if you got a
4 bonus in 2017?

5 THE WITNESS: Yes, I previously answered that.
6 Bonuses were given out. I don't remember the amount.

7 MR. NOEL: You had a follow-up?

8 BY MS. DUPRE-TOKOS:

9 Q. Yeah, just a couple of quick follow-ups?

10 So you said that with regarding to communicating
11 to those higher up the food chain than you about the
12 dangers of wildfire. You said it would be consistent with
13 what was included in the 2017 RAMP filing. Did I get that
14 right?

15 A. That is correct.

16 Q. Okay. But you did not recall when you notified
17 them. Was it pre RAMP filing?

18 A. I don't know a hundred percent. I would assume
19 so. The notification I was referencing is part of the
20 integrated planning process. We didn't get a chance to
21 touch into that, but we have a session D, which is -- I
22 actually don't know why it's called Session D. It came
23 over with a previous chief executive officer from another
24 utility back east. And it's a framework for
25 systematically evaluating risks and laying the risk --
26 enterprise risk of the foundation for informing our

1 planning process for our future investment plans. In that
2 context, wildfire was regularly a topic that we brought as
3 electric operations to that forum in order to highlight
4 the current state of wildfire and the associated
5 mitigations being employed to help manage that growing
6 risk.

7 Q. Generally, what time of year was that meeting so
8 that you can have the -- the plan, you know, done by a
9 certain time?

10 A. I believe that was in the early part of the year.
11 Q1, usually.

12 Q. Okay.

13 A. We discontinued that methodology with change in
14 our executive leadership, so we haven't had one this year.

15 Q. Okay. So that just stopped this year? Well, in
16 2019 or 2020?

17 A. I believe it officially stopped in 2020. I think
18 there was still a session D in 2019, if I'm not mistaken.

19 Q. Okay. Be your recollection is that you probably
20 addressed the issue of severe wildfire risk with Kevin
21 Dasso and Hogan?

22 MR. NOEL: Patrick Hogan.

23 THE WITNESS: Pat Hogan.

24 BY MS. DUPRE-TOKOS:

25 Q. Yes. And then Geisha Williams, prior to the RAMP
26 filing in 2017?

1 A. Let me correct that statement. I actually don't
2 know whether it was before or after the filing of the 2017
3 RAMP.

4 Q. Okay. Do you know when the filing of the 2017
5 RAMP was?

6 A. No.

7 MS. DUPRE-TOKOS: Does it say on there, Marc?

8 MR. NOEL: It doesn't have a date on it, but it
9 refers to 2017 wildfires which occurred in October, so it
10 was sometime after that.

11 THE WITNESS: It's dated November 30, 2017.

12 MR. NOEL: Ah, does have a date.

13 BY MS. DUPRE-TOKOS:

14 Q. Okay. So you think it was probably somewhere
15 around then that you notified them?

16 A. Would have been either -- actually, I don't
17 recall. I apologize.

18 Q. Okay. But it was prior to, say, March of 2018,
19 in all likelihood?

20 A. I don't know for sure, but that's what I would
21 assume.

22 Q. Okay.

23 A. That timeframe.

24 Q. Okay. So then my last follow-up is -- and I know
25 we went over it, but this -- the question that was asked
26 by the jury kind of looked at it from a different angle so

1 I want to follow up.

2 You said that when you are coming up with your --
3 you're doing your planning and you're looking at the
4 different factors including risk, you assume that people
5 and the data you're getting are trustworthy. It's not
6 anecdotal. But do you just place blind trust in the
7 people who are giving you that information, say, the
8 people from the field? You don't know any of them, do
9 you? You've never worked with them, have you?

10 A. Many, no.

11 Q. Okay. So I understand that you have to have some
12 level of trust on -- in all the aspects, but have you ever
13 done anything to just kind of spot check to make sure
14 anything is right?

15 A. So I would say we have done assessments of our
16 programs and I think that was highlighted a bit in the
17 RAMP, or in the asset management plan where we highlighted
18 the -- what looked to be black to clear, but it's actually
19 color coding, so that's part of our risk assessment
20 process where we have evaluated the health and maturity of
21 the programs as a whole. Those are done outside of my
22 organization, but I have received presentation on
23 materials that have characterized on the -- on the level
24 of maturity how well functioning certain processes are.

25 But in terms of going out to the field and
26 witnessing certain tasks; unfortunately, I haven't had the

1 bandwidth to be able to do that in addition to the
2 responsibilities that I am -- that I am being trusted to
3 perform on behalf of the company.

4 Q. So are any of those programs that have been
5 assessed for their health, the inspection program?

6 A. Yes. That -- that part of that process is to
7 evaluate existing controls and inspection -- inspection
8 programs have been a regular control in that overall risk
9 framework.

10 Q. Okay. Did that change after San Bruno?

11 A. I don't recall.

12 MR. NOEL: A couple.

13 MS. DUPRE-TOKOS: We feed off each other, sorry.

14 BY MR. NOEL:

15 Q. Right. You mentioned that Session D was
16 initiated by former chief executive who came from another
17 utility, would that be Geisha Williams?

18 A. No.

19 Q. Was it in place before Geisha Williams?

20 A. I believe Geisha was with the company before it
21 was implemented, but I don't believe she was CEO --

22 Q. Okay.

23 A. -- until after it was implemented.

24 Q. Who was the CEO before Geisha, Tony Earley?

25 A. That is correct.

26 Q. And that also -- it just dawned on me, the RAMP.

1 That's a -- that's essentially a policy statement that is
2 being filed with the regulator, correct?

3 A. What do you mean by "policy statement"?

4 Q. It's setting out explaining what PG&E is doing as
5 a matter of policy to address these -- these risks --
6 identified risks, correct?

7 A. I would characterize it more as a summary of the
8 modeling that we did at the direction of the CPUC.

9 Q. Okay. Was the RAMP reviewed with the senior
10 officials -- Kevin Dasso, Patrick Hogan, Geisha Williams,
11 prior to being filed with the CPUC?

12 A. Yes.

13 MR. NOEL: Okay. Anymore further follow up? I think
14 you're finally done, Mr. Gabbard. We appreciate your --
15 Madam Foreperson is going to have another admonition for
16 you.

17 GRAND JURY FOREPERSON: Mr. Gabbard, you are
18 admonished not to discuss or disclose at any time outside
19 of this jury room the questions that have been asked of
20 you or your answers until authorized by this grand jury or
21 the Court.

22 A violation of these instructions on your part
23 may be the basis for a charge against you of contempt of
24 court. This does not preclude you from discussing your
25 legal rights with your own attorney.

26 Mr. Gabbard, what I have just said is a warning

1 not to discuss this case with anyone except the Court,
2 your lawyer, or the district attorney.

3 Do you have any questions?

4 THE WITNESS: No, I do not. Thank you.

5 GRAND JURY FOREPERSON: Thank you for your time.

6 MR. NOEL: Do you still have to go to Fresno?

7 THE WITNESS: Yes, I do.

8 MR. NOEL: I'm sorry.

9 MS. DUPRE-TOKOS: Hey, we timed it so you get to go
10 through Sacramento during prime rush-hour traffic.

11 THE WITNESS: I appreciate it.

12 GRAND JUROR NUMBER FOURTEEN: Drive careful.

13 MR. NOEL: Can we have a real quick break?

14 GRAND JURY FOREPERSON: Okay. Yes.

15 MR. NOEL: Yes, Madam Clerk, we would like to move
16 all the exhibits that have come through Mr. Gabbard into
17 evidence. Thank you.

18
19 [Whereupon, all previously identified exhibits were
20 admitted.]

21 [Recess was taken at 4:21 p.m.]

22
23 [Proceedings omitted.]

24
25 [Whereupon the grand jury comes to order in Courtroom 9 at
26 4:34 p.m.]

1 GRAND JURY FOREPERSON: We are ready.

2

3 [Witness enters the courtroom.]

4

5 MS. DUPRE-TOKOS: Do you want to move exhibits in?

6 MR. NOEL: I already did. I did it while you were
7 gone. Madam clerk reminded me so we went back on the
8 record to deal with it.

9 GRAND JURY FOREPERSON: (WITNESS #12), before you have
10 a seat, would you please raise your right hand to be
11 sworn?

12 (WITNESS #12), do you some solemnly swear the
13 evidence you shall give in the matter pending before the
14 grand jury will be the truth, the whole truth and nothing
15 but the truth so help you God?

16 THE WITNESS: Yes, ma'am.

17 GRAND JURY FOREPERSON: Thank you. Have a seat,
18 please.

19 THE WITNESS: Good afternoon.

20

21 **EXAMINATION**

22 BY MS. DUPRE-TOKOS:

23 Q. If you need it, there's water behind you.

24 A. I'm not that thirsty.

25 Q. Could you state and spell your name -- your last
26 name the record?

1 A. (WITNESS #12), [spelling redacted.]

2 Q. First name?

3 A. (WITNESS #12), [spelling redacted.]

4 Q. And just to get this out of the way, do you know
5 Mr. Noel?

6 A. I'm familiar with Mr. Noel, yes.

7 Q. And how are you familiar with him?

8 A. Been acquaintance -- friends for a long time. We
9 used to coach little league and participate on the board
10 of directors of little league and spent a lot of off-hours
11 with Mr. Noel.

12 Q. Okay. On the diamond and --

13 A. Raising our kids.

14 Q. Okay. So are you employed?

15 A. Currently, yes.

16 Q. And by whom?

17 A. Pacific Gas and Electricity.

18 Q. How long have you been employed by PG&E?

19 A. I'm on my 31st year.

20 Q. Could you briefly summarize your employment
21 history with PG&E for us?

22 A. The roles --

23 Q. Yeah.

24 A. -- I assume. Yeah, I started off in --

25 Q. And dates if you can remember them?

26 A. Oh, 1979, I got hired on with PG&E and started

1 off as a groundman, worked up to apprentice lineman,
2 lineman, crew foreman, all through the crew environment.

3 In 1997, I went to Livermore training center to
4 instruct apprentice linemen, and then I went back to being
5 a lineman in '98.

6 In '99, I went to pole asset management, which
7 was a program management group.

8 MS. DUPRE-TOKOS: Hang on one second. Can everyone
9 hear him?

10 BY MS. DUPRE-TOKOS:

11 Q. Okay, go ahead.

12 A. Sorry, the desk is a little short for us tall
13 guys.

14 Q. You may need to pull the mic a little bit closer,
15 or not.

16 A. Or not. I will just -- that is good. I can hear
17 me back there.

18 Where did I leave off? I went back to pole asset
19 management, at which time, I was responsible for all the
20 pole replacements in PG&Es service territory utilizing
21 outside line contractors. After that, I went to -- back
22 to the line crews, to transmission, at which time, I took
23 a job as a transmission line supervisor. And that was
24 2005 and I went to Eureka. I was there for three years.
25 In '08, I went -- came back home here to Chico and took a
26 troubleman supervisor -- distribution troubleman

1 supervisor jobs, was only in there for a few months before
2 they put me back in the transmission in Sacramento. I was
3 in Sacramento for a little over a year. They moved me to
4 Lakeville, which is Santa Rosa area, then I came back here
5 to Oroville in 2011. And then I got back to transmission
6 in 2012, at the Table Mountain jurisdiction.

7 Q. So when --

8 A. Currently -- oh.

9 Q. Keep going.

10 A. Currently, I'm a -- what they call a specialist.
11 Expert specialist for transmission line.

12 Q. Okay. When you came back to Oroville, what were
13 you doing?

14 A. Oroville distribution supervisor for 11 months.

15 Q. Now, you said that you were distribution
16 troubleman supervisor?

17 A. Yeah.

18 Q. Were you ever a transmission troubleman?

19 A. Was I a transmission troubleman?

20 Q. Officially?

21 A. No.

22 Q. Okay. Did you ever unofficially do the work of a
23 troubleman?

24 A. Yes.

25 Q. Why?

26 A. Relief efforts.

1 Q. Okay. To help --

2 A. Whenever you're short in permanent bodies, they
3 go on vacation, sick leave, whatever, you do a temporary
4 upgrade.

5 Q. Okay. Were you a journeyman lineman at the time
6 that you did that?

7 A. Yes.

8 Q. Okay. What type of training did troubleman
9 receive?

10 A. What type of troubleman?

11 Q. Transmission.

12 A. There is no formalized training.

13 Q. Okay. Is there optional training?

14 A. There are components. For example, switching --
15 transmission switching training. There is a -- 40-hour
16 switchman training, which they'll teach you to switch
17 inside of a substation. But there's no formalized course
18 coded type of training for troubleman.

19 Q. Okay. Do you know if there ever was?

20 A. Not that I'm aware of.

21 Q. Okay. So is there any formalized training for
22 inspections?

23 A. No.

24 Q. So how long total were you a transmission line
25 supervisor?

26 A. Since 2006 to present, minus two years. So --

1 Q. About 12 years?

2 A. Yeah.

3 Q. Okay. And how long were you the transmission

4 line supervisor for Table Mountain?

5 A. From 2012 to 2017.

6 Q. Okay. And were you there the whole time or did

7 you --

8 A. No, I was hardly there.

9 Q. You were hardly there?

10 A. Yeah.

11 Q. Why?

12 A. I was always on special assignments and doing

13 other projects.

14 Q. Okay. But you -- so as the T-line supervisor,

15 you supervised the troublemen; is that correct?

16 A. That is correct.

17 Q. Okay. What were you expectations of your

18 troublemen regarding inspections?

19 A. Can you clarify?

20 Q. Did you expect them to actually -- if they were

21 doing an inspection, actually go to each facility?

22 A. Absolutely.

23 Q. Did you actually expect them to assess each

24 facility?

25 A. Yes.

26 Q. Now, are you familiar with towermen?

1 A. Yes.

2 Q. And you're familiar with linemen?

3 A. Yes.

4 Q. What's the difference between a towerman and a
5 lineman?

6 A. One is considered a QEW or a qualified electrical
7 worker and one is not.

8 Q. Okay. Which was is QEW?

9 A. That is your troubleman.

10 Q. Okay. No, between towerman and lineman, what's
11 the difference?

12 A. It's the same definition. Lineman is a QEW and a
13 towerman is a -- what they consider QEP, a qualified
14 electrical person but they're not qualified to work on
15 electricity.

16 Q. Okay. What do that do that's different?

17 A. What do they do?

18 Q. In terms of job duties?

19 A. So I'm not that versed on the towerman, but they
20 are ground erection and dismantling of all the steel
21 towers, mono poles, foundation work.

22 Q. And then what about lineman?

23 A. The lineman is capable of doing it all. Steel,
24 foundations, and electrical work.

25 Q. So why would they have towerman then?

26 A. It's a cheaper rate.

1 Q. Okay. But isn't a troubleman kind of a cross
2 between the two, they have experience that a lineman
3 doesn't have with regard to the towers?

4 A. I'm not sure what you're asking. I mean, it's a
5 line progression, right, the lineman -- it's a step up
6 from the lineman.

7 Q. A troubleman is a step up from a lineman?

8 A. Yeah. There's a line of progression. There's
9 apprentice, and then the journeyman, and then the
10 troubleman, crew foreman.

11 Q. Okay. So then one would expect that a troubleman
12 has experience that the lineman man doesn't?

13 A. Yes.

14 Q. Okay. And we were saying "facility" earlier,
15 does that mean the towers?

16 A. Yes.

17 Q. Basically. Did you ever personally do a ground
18 inspection of the Caribou-Palermo line?

19 A. Not that I can recall, no.

20 Q. Okay. Why not?

21 A. I was not a troubleman assigned to that.

22 Q. Okay. Are you familiar with the ETPM?

23 A. Yes, I am.

24 Q. What is that?

25 A. That is our government's document for how we do
26 our preventative maintenance program.

1 Q. And what's your position on the ETPM in terms of
2 how PG&E rates in terms of industry standards?

3 A. Could you clarify that?

4 Q. Sure. Do you think that what's set forth in the
5 ETPM meets industry standards?

6 A. It -- it's a -- it's a document that outlines how
7 we do our business. They -- if you're -- I'm not sure if
8 you're asking how everybody else does it, but that's how I
9 know we do it.

10 Q. Okay. And does how you do business meet what is
11 generally considered the industry standard?

12 A. Well, I don't know what the industry standard is.

13 Q. Okay. Now, while you were transmission line
14 supervisor at Table Mountain, are you aware of any
15 preventative maintenance that was done on the
16 Caribou-Palermo line?

17 A. Preventative maintenance, yes. So I know we've
18 changed insulators on there that were flashed.

19 Q. Okay. Any other that you're aware of?

20 A. There was connectors replaced with a three-bolt
21 connectors.

22 Q. Okay. And that was system-wide, correct?

23 A. Yes.

24 Q. Now, are you familiar with the term "run to
25 failure"?

26 A. I may have heard it.

1 Q. You may have heard it?

2 A. Well, I mean --

3 Q. You have heard it?

4 A. Passing discussions, yes, I've heard it.

5 Q. Okay. Would it be accurate to say that the
6 preventative maintenance plan for the Caribou-Palermo line
7 was run to failure?

8 A. I wouldn't say that, no.

9 Q. Okay. What was -- what would you call the
10 preventative maintenance plan for the Caribou-Palermo
11 line?

12 A. Well, like any of our lines, preventative was to
13 stop it from failing. Obviously, if it fails, you
14 probably missed a spot, but that was not the plan for the
15 Caribou-Palermo, nor was it any other line.

16 Q. That was -- and, I guess, I should be a little
17 more clear. I'm not necessarily saying your plan or your
18 crew's plan, but the company plan. Does that change your
19 answer at all?

20 A. Well, I don't know what the company's plan was
21 for it. I wasn't given that directive.

22 Q. Okay. Were you given the money and manpower to
23 do any preventative maintenance that you felt was
24 necessary?

25 A. They gave me what they felt was necessary.

26 Q. Is it what you felt was necessary?

1 A. My opinion was not taken into account.

2 Q. Okay. We're asking for your opinion here.

3 A. I could have used more men, and I could have used
4 more money.

5 Q. To your knowledge, were aerial patrols used on
6 the Caribou-Palermo line?

7 A. Say that again.

8 Q. Do you know if aerial patrols were used on the
9 Caribou-Palermo line?

10 A. Yes.

11 Q. And can you tell us what an aerial patrol is,
12 what your understanding is?

13 A. It's a -- a cursory review of the -- for the
14 obvious. It's a flyover to observe any abnormality or
15 condition that would affect system reliability or safety.

16 Q. And when you say the obvious, like a tree in the
17 line or things like that?

18 A. Yeah. Broken arm, insulators flashed.

19 Q. About how fast are the aerial patrols done, do
20 you know?

21 A. Roughly 30 knots, 35 knots.

22 Q. Okay. And then what's an aerial inspection?

23 A. Aerial inspection -- well, we typically consider
24 an inspection a ground inspection. We don't have an
25 aerial inspection per se. If we cannot get to something,
26 we can substitute, with approval, an aerial inspection and

1 that will be for facilities that we couldn't get to for
2 whatever reason, and it had to get approval from the
3 superintendent to perform.

4 Q. Okay. While you were at Table Mountain, to your
5 knowledge, was an aerial inspection ever done of the
6 Caribou-Palermo line?

7 A. Not that I'm aware of.

8 Q. Okay. And are you aware if any was ever
9 requested of the superintendent?

10 A. No.

11 Q. No, they weren't, or, no, you're not aware?

12 A. I'm not aware of any.

13 Q. Okay. So what was the patrol or inspection
14 schedule for the Caribou-Palermo line while you were
15 there?

16 A. So our steel lines are a detailed ground
17 inspection once every five years, and then four years
18 after that -- or every year, an aerial for four years and
19 then the fifth year is detailed ground inspection.

20 Q. So when you say aerial that would be a patrol?

21 A. Correct.

22 Q. Okay. And about how long would an aerial patrol
23 of the entire Caribou-Palermo line take?

24 A. Three hours. Three, four hours.

25 Q. So if you were doing detailed ground inspections
26 once every five years, there's only one while you were

1 transmission line supervisor at Table Mountain then; is
2 that accurate --

3 A. More detailed?

4 Q. -- every five years? Yeah, one detailed ground.

5 A. Yeah, in my tenure, yeah.

6 Q. Okay. So is that the inspection and patrol
7 schedule that is set out in the ETPM?

8 A. Yes.

9 Q. And in your opinion, is that sufficient?

10 A. My opinion, no.

11 Q. Are you able to explain to us why it's not
12 sufficient or why you don't believe it is?

13 A. Not just that one line. We have several lines in
14 the Table Mountain jurisdiction that are -- are aging. In
15 the pit country, the high grow county, these facilities
16 have kind of out -- I don't want to say outlived their
17 lifespan, but there is no data in the industry that says a
18 pole will last "X" amount of years, a tower will last "X"
19 amount of years. There's suggestive, but there's no hard
20 data that says it will, and a lot of these facilities are
21 nearing their useful lifespan. So a little more rigor in
22 their inspection would help greatly.

23 Q. Help --

24 A. In (WITNESS #12)'s opinion.

25 Q. Help greatly in terms of, what, safety and
26 longevity?

1 A. Yeah.

2 MS. DUPRE-TOKOS: Now, it's probably out of order,
3 but can you flip to the allotment. It's probably the
4 second slide.

5 MR. NOEL: Okay, 577?

6 MS. DUPRE-TOKOS: Yeah.

7 BY MS. DUPRE-TOKOS:

8 Q. Looking at Exhibit 577.

9 [Exhibit No. 577 was identified.]

10 BY MS. DUPRE-TOKOS:

11 Q. And I have a black and white copy, I don't know
12 that will help you. And we can probably enlarge that, but
13 I believe you've seen this exhibit before, or we can just
14 make the whole screen go black.

15 A. Either way, it looks like the same to me.

16 Q. So are you familiar with the term allotments?

17 A. Not as well as I should be.

18 Q. What are allotments?

19 A. They're, I assume -- I shouldn't assume --
20 projected hours for a patrol.

21 Q. Okay. So would another way of saying that be
22 hours allotted to a certain task such as a patrol?

23 A. Okay.

24 Q. Is that accurate?

25 A. To my knowledge. I'm not as versed on allotment
26 as I should be.

1 Q. Okay. Is another way of saying that, you didn't
2 focus on allotments very much?

3 A. I didn't, no.

4 Q. Okay. To your knowledge, were allotments tied to
5 PM or job numbers?

6 A. I don't know.

7 Q. Now, did you get any input with regards to
8 allotments?

9 A. No.

10 Q. So nobody called you and said, "Hey, (WITNESS
11 #12), how long does it take to do X, Y and Z," and then
12 that's how many -- that's what the allotment became?

13 A. No, these were all derived long before I got
14 there.

15 Q. Okay. And they didn't change while you were
16 there significantly?

17 A. Not that I'm aware of.

18 Q. Now, what is a unit cost?

19 A. The price per unit. Hours charged or labor
20 dollars to the asset inspected.

21 Q. Okay. And well, let me follow up with allotment.
22 Does this list allotments on there to the extent that you
23 can read it?

24 A. What was the question, I'm sorry? The screen is
25 not a great picture. This is not an HD screen.

26 MR. NOEL: It's an HD screen, it's not an HD

1 document. And feel free to stand up and approach the
2 board if you need to or want to.

3 THE WITNESS: Okay. So which one? Doesn't get that
4 much better. So what was the question, I'm sorry.

5 BY MS. DUPRE-TOKOS:

6 Q. Are allotments listed on that document?

7 A. Doesn't appear to be.

8 Q. Okay. Are unit costs?

9 MR. NOEL: Let me see if I can get this going. This
10 line that's highlighted in yellow here is for the
11 Caribou-Palermo, correct?

12 THE WITNESS: Correct.

13 MR. NOEL: And as you go across here to the right,
14 there's a column, "work" and it lists 89 hours. Would
15 that have been the allotment in 2014 for the detailed
16 inspection of Caribou-Palermo line?

17 THE WITNESS: I couldn't tell you. I don't derive
18 these charts.

19 BY MS. DUPRE-TOKOS:

20 Q. Okay. And you don't pay attention to the
21 allotments?

22 A. No.

23 Q. Okay. So we also mentioned unit costs.

24 A. Yes.

25 Q. Were those tracked in any way?

26 A. Yes.

1 Q. How?

2 A. Monthly, we had a report on those unit costs and,
3 again, from my understanding it was derived from the units
4 captured by closed notifications of the circuits being
5 patrolled versus the times or labor charges to those
6 circuits.

7 Q. Okay. And you said it was a monthly e-mail. Is
8 that also known as the red green report?

9 A. Yes, it is.

10 Q. And looking at Exhibit 1228, which is up on the
11 board, is that an example of one of the red green reports?

12 A. It's not the typical one, but that was an e-mail
13 sent out that came with it, yes.

14 [Exhibit No. 1228 was identified.]

15 BY MS. DUPRE-TOKOS:

16 Q. Okay. And looking at that, I am going to have to
17 get up so I can read it. And the colors aren't showing up
18 real great, but here where it says summary, it says "P&I,"
19 is that patrol and inspection?

20 A. Correct.

21 Q. "Unit cost, performing close to DET target, year
22 to date, across the majority of MAT."

23 Did I read that correctly?

24 A. Yes.

25 Q. Okay. "Net financial impact of minus 0.0
26 million," is that -- you can't tell, but is that sort of

1 green. So is that good?

2 A. That's good.

3 Q. And then under preventative maintenance, it says,
4 "unit cost performing close to DET," what's DET, do you
5 know?

6 A. No.

7 Q. "Close to DET target, year to date," which is the
8 same as what it said up for patrol and inspection, "across
9 majority of MAT, slight unfavorable financial impact of
10 minus 0.0 million." And that's in red; is that accurate?

11 A. Yes.

12 Q. Okay. So would it be accurate, then, to
13 understand that because it's in red it's bad?

14 A. At my level, yeah. Red is bad. Green is good.

15 Q. So then it's good that patrol and inspection is
16 zero, but it's bad that preventative maintenance is zero.
17 Is that what that's telling us?

18 A. That's how I perceive it, yes.

19 Q. Okay. So for it to be green, it would have had
20 to be below target; is that accurate?

21 A. I would assume so, yes.

22 Q. Now, while you were transmission line supervisor
23 of Table Mountain, did you receive bonuses?

24 A. Yeah.

25 Q. And what were the bonuses based on?

26 A. It was a -- a culmination of, I think, safety.

1 It was -- the overall company goals. Not just Table
2 Mountains. Table Mountain was just a fraction of the
3 criteria that made up for those bonuses.

4 Q. Okay. And was one of those elements your
5 adherence to the unit costs?

6 A. Yes.

7 Q. And were you also evaluated in some way with
8 regards to inspection and patrols and when they got done?

9 A. Yes.

10 Q. And so when I -- when I say "when they got done,"
11 what does that mean to you?

12 A. It means to me that they were completed in the
13 months they were assigned, and that's how they measured
14 it.

15 Q. And did you have input on what months things were
16 assigned to be done?

17 A. Once a year, we were given some latitude to make
18 adjustment.

19 Q. Okay. But otherwise, you were given a schedule
20 and then given a small chance to adjust things?

21 A. Yes.

22 Q. Okay. So would it be accurate to say, then, that
23 you were just expected to execute the plan sent to you
24 from asset management?

25 A. Yes.

26 Q. Now, you're familiar with the job of troubleman

1 today, and you're at least somewhat familiar with the job
2 that troublemen did in the past. Do you believe that
3 troublemen today can perform their jobs in the same way as
4 troublemen in the past could?

5 A. Specifically, what are you referring to?

6 Q. Well, do they have the same tools and equipment
7 to do the job?

8 A. So -- so the troublemen in the past did not have
9 the same tools required to do the job that troublemen do
10 today, specifically to climb a tower, right. In the past,
11 we did not have to have any fall protection. We just
12 climbed them and did whatever we wanted to do. Today's
13 environment, we are a full belted climbing process.

14 Q. Okay. So there are increased regulations?

15 A. Yes. Doesn't mean they can't do the job any
16 differently, just takes a lot longer. It's more skill
17 set, or less depending on how you look at it. But there's
18 different tools to be used.

19 Q. Okay.

20 MS. DUPRE-TOKOS: Any questions, Marc?

21 MR. NOEL: Yeah, a few follow-up for you.

22 BY MR. NOEL:

23 Q. On that, has the nature of the troubleman
24 position itself changed over the years?

25 A. The job hasn't changed. The personnel has
26 changed.

1 Q. How so?

2 A. Our -- our -- the experience level in that
3 position as significantly changed. We have less senior
4 people doing the job than we did in the past.

5 Q. We have heard that in the past, in the '80s and
6 the '90s that troublemen were basically considered to be
7 the most experienced of the linemen, and that's why they
8 were given that job. Was that your experience?

9 A. Yes.

10 Q. But, yet, in the 2000s and the last ten years,
11 that's not necessarily true anymore, is it?

12 A. No. We're -- they're a little less senior now.

13 Q. And sometimes they really -- they may be
14 journeyman lineman, but they really have no experience
15 working on the transmission lines, correct?

16 A. Correct.

17 Q. And in your time as the supervisor at Table
18 Mountain, you actually had two such troublemen, correct?

19 A. One.

20 Q. Well, (WITNESS #6) had no prior transmission
21 experience before becoming a transmission troubleman,
22 correct?

23 A. Correct.

24 Q. And neither did (WITNESS #20)?

25 A. He was there before I got there, so he was --

26 Q. Okay. All right.

1 A. Yes, so two to your...

2 Q. Right. Now, a term came up earlier, you talked
3 about back when you were doing climbing inspections, if
4 you wanted to, you could go climb towers, right?

5 A. Uh-huh.

6 Q. Now, remember, you have to answer verbally so
7 that the lady at the funny-looking typewriter can take
8 down with what you say.

9 A. Okay.

10 Q. Nowadays, climbing inspections don't occur very
11 often, correct?

12 A. It's rare.

13 Q. The official term in the ETPM is the climbing
14 inspections, can -- are done as triggered by certain
15 events, correct?

16 A. Yes.

17 Q. In your experience as a T-line supervisor, are
18 climbing inspections ever triggered?

19 A. Yes.

20 Q. By what?

21 A. I have called for -- for several of them, but
22 they were initiated by a failure.

23 Q. Okay. What kinds of failures?

24 A. Collapsed arm. I had one from a -- flashed
25 insulators that -- separated the insulators from the
26 tower, and I wanted to make sure that the adjacent

1 structures were sound before I got the crews up on the
2 steel to put the wire back up.

3 Q. Okay. Couple more. The allocations we talked
4 about.

5 MS. DUPRE-TOKOS: The allotments.

6 BY MR. NOEL:

7 Q. I'm sorry, the allotments. It's been a long day.
8 Did you have any input into how many hours would be
9 allotted for an individual inspection or patrol?

10 A. No.

11 Q. Did anybody from transmission asset strategy or
12 business finance ever seek your opinion as to the
13 reasonableness of the proposed allotments?

14 A. Not that I ever recall.

15 Q. And then, when Ms. Dupre-Tokos asked you about
16 preventative maintenance and you used two -- two examples
17 of preventative maintenance in your experience at Table
18 Mountain, one was the three-bolt connector and the other
19 was insulators that were flashed?

20 A. Uh-huh.

21 Q. Insulators that were flashed are actually
22 considered failed, right?

23 A. Not necessarily.

24 Q. They have to be replaced?

25 A. Well, yes.

26 Q. Right. They're a danger. You have to replace

1 them?

2 A. They're subject at that point.

3 Q. Right. So that's not really preventative
4 maintenance. Preventative maintenance would be going out
5 and doing something before -- replacing insulators before
6 they flashed or cracked or -- or whatever. Other than the
7 three-bolt connectors, was there ever any preventative --
8 truly preventative maintenance where crews went out and
9 replaced items on Caribou-Palermo before they broke?

10 A. Not that I can think of off of the top of my
11 head, but I'd have to look at the log report completed to
12 tell you.

13 Q. Okay. And you brought up the three-bolt
14 connectors. Do you recall why three-bolt correctors were
15 replaced?

16 A. 'Cause there was a period of time that there were
17 some three-bolt connectors, not necessarily on this line
18 that were discovered in the transmission system that were
19 not approved for transmission use. They were distribution
20 connector so the leadership at that time said they wanted
21 to know where all these three-bolt connectors were in the
22 system. So unless you got up close and personal, you
23 couldn't tell whether they were the right transmission
24 connector or the distribution connector so we wrote them
25 all up.

26 Q. And why having distribution connectors on a

1 transmission line is that -- is a problem?

2 A. The material composition is not the correct for
3 the high voltage electricity.

4 Q. And ultimately it creates a fire danger, correct?

5 A. Could possibly, yes.

6 Q. Now, that -- the identification of the three-bolt
7 connectors predated you in 2009?

8 A. Yes.

9 Q. You took over in 2012 or 2011, correct?

10 A. 2012.

11 Q. Why did it take seven years to replace the
12 three-bolt connectors on Caribou-Palermo?

13 A. Yeah, I can't answer that. I -- I don't know.

14 Q. Was it understood that the Caribou-Palermo was in
15 a high fire threat district, a high wind district in the
16 middle of a drought?

17 A. I don't think that was taken into consideration.

18 Q. Finally, you talked about industry standards and
19 benchmarking studies. After you left Caribou-Palermo as
20 the T-line supervisor, did you go to work for someone
21 named Eric Back?

22 A. Yes.

23 Q. And Mr. Back was the senior director of
24 operations, I believe?

25 A. Yes.

26 Q. And what did Mr. Back have you doing?

1 A. He had me corresponding with other utilities and
2 benchmarking what they do versus what we do.

3 Q. Did you ever review the Quanta reports?

4 A. No, that was not given to me.

5 Q. Did you ever ask Mr. Back why he was having you
6 look at inspection and patrol policies of other utilities?

7 A. How he instructed me was to go visit these
8 utilities, find out what they were doing. We had to have,
9 what we called, a summit with his leadership and determine
10 if we were doing the right inspections at the right time.
11 He was looking to change our inspections to prescriptive
12 base inspection cycle. What that means? I don't know.

13 Q. And do you recall who was Mr. Back's predecessor?

14 A. John Parks.

15 Q. Now, under Mr. Parks, was there under
16 consideration a move to actually lessen the inspection and
17 patrol cycles?

18 A. Not that I'm aware of.

19 MR. NOEL: Okay. I think that's all that I have. Do
20 you have anything further?

21 Any questions from the jurors? We have some
22 questions. The jurors are allowed to ask you questions.
23 They write them down, give them to us. We review them and
24 make a determination.

25 All right. When a tag or an LC notification case
26 is produced from an inspection, whose responsibility is it

1 to make sure that the problem is addressed and corrected
2 in a timely manner?

3 THE WITNESS: One more time?

4 MR. NOEL: When a tag or LC notification is produced
5 from an inspection, whose responsibility is it to make
6 sure that the problem is addressed and corrected in a
7 timely manner?

8 THE WITNESS: So the LC has only been in existence
9 for about four years, five years. It was an EC tag before
10 that.

11 MR. NOEL: Okay.

12 THE WITNESS: So we will just call it a tag.

13 MR. NOEL: Just a tag.

14 THE WITNESS: And when a tag is generated, it was
15 reviewed by the supervisor, and then input into our SAP
16 database. Our SAP database based on the criteria for
17 which it was submitted would dictate how soon that tag
18 would be addressed.

19 For example, prior to 2013, we could go out to
20 two years. After 2013, it was changed. We could only go
21 out to a year. If it was a raptor tag, it had 90 days.
22 If it was an immediate response, you had to -- an
23 immediate response to address the hazard and within 30
24 days to close it out. So it was supervisor and oversight,
25 I guess, to make sure that it all got done.

26 MS. DUPRE-TOKOS: So supervisor made sure it was done

1 timely?

2 THE WITNESS: Yes.

3 MR. NOEL: Assuming that the troublemen were truthful
4 in saying that they were not trained to inspect C-hooks,
5 would you agree with their assertions?

6 THE WITNESS: Yes.

7 MR. NOEL: To your knowledge, how far up the
8 management chain did this knowledge or the lack of
9 knowledge go?

10 THE WITNESS: Specifically when we...

11 MR. NOEL: Let me -- let's ask it a better way. Did
12 you ever have a discussion with any of your superiors
13 about the lack of knowledge and training for troublemen as
14 to what to look for in inspections?

15 THE WITNESS: There were several conversations
16 through the years. You get to a certain point where
17 you -- it falls on deaf ears, right, so you just don't --
18 you don't beat it on a daily basis, you know.

19 MR. NOEL: Do you remember having any specific
20 discussions about the lack of training and experience with
21 regard to cold-end attachment points?

22 THE WITNESS: Was there any discussion over it? No.

23 MR. NOEL: Yeah. Okay.

24 THE WITNESS: But if I can elaborate on -- on the
25 experience and training, though. I think I shared with
26 you, these people coming in to do the job, in the case of

1 (WITNESS #6), I -- I did not put him in the role for six
2 months because he had no transmission experience. Right,
3 so I made him work on the crews for six months just to get
4 some experience. But that's all the union or the -- well,
5 the union wouldn't let me hold him any longer, and I could
6 not bypass him for any overtime. I could not change his
7 pay scale. He still got paid the troubleman rate, but
8 that was the only thing I could do to help progress his
9 understanding in the transmission system.

10 MR. NOEL: Final question: In your experience, and
11 you've been all over the PG&E territory, is there a
12 difference in the way transmission lines are inspected and
13 maintained based upon population base?

14 THE WITNESS: In my opinion?

15 MR. NOEL: That's what we want, your opinion.

16 THE WITNESS: Yes.

17 MR. NOEL: For instance?

18 THE WITNESS: We're kind of out-of-sight, out-of-mind
19 up there.

20 MR. NOEL: Right.

21 THE WITNESS: We're always fighting the political
22 battle.

23 MR. NOEL: As opposed to, say, the Bay area where you
24 have --

25 THE WITNESS: Something flips the screen down there,
26 they get a lot of attention.

1 MR. NOEL: Thank you, (WITNESS #12).

2 MS. DUPRE-TOKOS: So you need an admonition from
3 madam foreperson before you get to leave.

4 THE WITNESS: What's that?

5 MS. DUPRE-TOKOS: You have to listen to madam
6 foreperson before you get to leave.

7 THE WITNESS: Got it.

8 GRAND JURY FOREPERSON: (WITNESS #12)?

9 THE WITNESS: Yes, ma'am.

10 GRAND JURY FOREPERSON: You are admonished not to
11 discuss or disclose at any time outside of this jury room
12 the questions that have been asked of you or your answers
13 until authorized by this grand jury or the Court.

14 A violation of these instructions on your part
15 may be the basis for a charge against you of contempt of
16 court. This does not preclude you from discussing your
17 legal rights with your own attorney.

18 (WITNESS #12), what I have just said is a warning
19 not to discuss this case with anyone except the Court,
20 your lawyer, or the district attorney.

21 Do you have any questions?

22 THE WITNESS: No, that's pretty clear.

23 GRAND JURY FOREPERSON: Okay. Thank you for your
24 time today.

25 THE WITNESS: Thank you.

26 MR. NOEL: All right. You're free to go. Get out of

1 here.

2 MS. DUPRE-TOKOS: Thanks, (WITNESS #12).

3 THE WITNESS: Thank you.

4 GRAND JURY FOREPERSON: 8:30 Friday.

5 [Matter adjourned at 5:10 p.m.]

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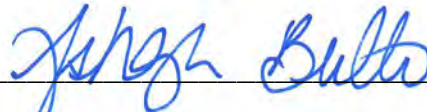
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1 **COURT REPORTER'S CERTIFICATE**

2
3 THIS IS TO CERTIFY THAT I, ASHLEIGH BUTTON, A
4 CERTIFIED SHORTHAND REPORTER OF THE STATE OF CALIFORNIA,
5 WAS PRESENT AT THE TIME AND PLACE THE FOREGOING GRAND JURY
6 PROCEEDINGS WERE HAD AND TAKEN IN THE WITHIN MATTER; AND
7 THAT AS SUCH SHORTHAND REPORTER I DID TAKE DOWN IN
8 SHORTHAND WRITING THE AFOREMENTIONED PROCEEDINGS; AND
9 AFTERWARDS CAUSED MY SAID SHORTHAND WRITING TO BE
10 TRANSCRIBED INTO TYPEWRITING; AND THE FOREGOING PAGES,
11 BEGINNING AT THE TOP OF PAGE 1 TO AND INCLUDING PAGE 200
12 HEREOF, CONSTITUTE A FULL, TRUE, ACCURATE, AND COMPLETE
13 RECORD OF THE PROCEEDINGS.

14 WITNESS MY HAND THIS 17TH DAY OF JUNE, 2022.

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18 ASHLEIGH BUTTON, CSR #14013
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IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

BCSC-2019-GJ-001

CERTIFIED COPY

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

FRIDAY, FEBRUARY 28, 2020

VOLUME 42

OROVILLE, BUTTE COUNTY, CALIFORNIA

ASHLEIGH BUTTON, CSR NO. 14013, OFFICIAL COURT REPORTER

SEALED PURSUANT TO PENAL CODE 938.1 (b)

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APPEARANCES:

FOR THE BUTTE COUNTY DISTRICT ATTORNEY'S OFFICE:

Marc Noel, Deputy District Attorney
Jennifer Dupre-Tokos, Deputy District Attorney
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Oroville, California 95965

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1 OROVILLE, BUTTE COUNTY, CALIFORNIA

2 FEBRUARY 28, 2020; 8:30 a.m.

3 (Confidential Special Grand Jury Hearing Proceedings)

4
5 [Confidential grand jury called into session at 8:38 a.m.
6 in Courtroom 9.]

7
8 [Grand jury role call omitted.]

9 [Discussions omitted.]

10
11 MR. NOEL: All right. Morning. A little update on
12 the schedule here. Today, we have three witnesses. We
13 have the failure engineer Jon McGormley, who will be going
14 through his PowerPoint and basically all of the scientific
15 analysis and lots of Algebra. It should be very
16 interesting and very enlightening. He will talk to y'all
17 about what he's been doing. After that, we have Kris
18 Kuyper, the meteorologist, in here to talk to you about
19 weather, and not only the weather specifically on
20 November 8, 2018, but historical weather patterns and also
21 the drought. And talk some about that.

22 Finally this morning, we will have Lieutenant
23 Barkley back to simply lay the foundation for a public
24 record, what's called the fire -- fire-threat map in the
25 state of California. CPUC fire threat that was issued
26 January 19, 2018.

1 Hopefully, we will be done before -- for the day
2 before lunch. It'll be a half day. I have assured the
3 court that we will be out of here by 2:30 at the latest.
4 And the reason is today is the swearing in ceremony for a
5 new judge, and that's in the Chico courthouse.

6 MS. DUPRE-TOKOS: Not a judge.

7 MR. NOEL: Well, yeah, commissioner.

8 MS. DUPRE-TOKOS: Commissioner.

9 MR. NOEL: Yeah. And one of our former colleagues
10 and one of my actual personal closest friends, and so they
11 want us out of here by 2:30 so that all of the staff and
12 everything can go to Chico for the big ceremony. So we
13 promised them that we would be out of here by then.

14 So that means on Tuesday morning, we're probably
15 going to have some clean-up stuff. We may have a few
16 witnesses like Lieutenant Barkley just coming in and
17 laying foundation for various documents, either obtained
18 from public sources or that you have subpoenaed.

19 MS. DUPRE-TOKOS: He won't lay foundation for
20 anything subpoenaed.

21 MR. NOEL: So we will get in the last few documents,
22 anything we've missed. That kind of stuff.

23 MS. DUPRE-TOKOS: Are you talking on Tuesday?

24 MR. NOEL: Yeah.

25 MS. DUPRE-TOKOS: And we may have an air-quality
26 witness.

1 MR. NOEL: Yes, and we -- we may have a witness to
2 come in here. One of the charges -- one of the proposed
3 charges that we really haven't talked much about is the
4 environmental charge. For the environmental damage that
5 the Camp fire did and we've been working to get an expert
6 from the State Air Quality Control, right?

7 MS. DUPRE-TOKOS: It'll either be state or county,
8 but the county uses the state data.

9 MR. NOEL: Yep. To come in here and talk to you
10 about what the Camp fire did in terms of the air quality
11 up here. The pollution that it released. The destructive
12 nature. You've already heard a lot of it without even
13 knowing it, and that was all of our victims who died from
14 inhalation. And so we will talk, hopefully, a little bit
15 about that.

16 MS. DUPRE-TOKOS: If you recall, it wasn't just
17 inhalation of smoke. It's -- it was inhalation of, I
18 think the language was, combustible products.

19 MR. NOEL: Yes.

20 MS. DUPRE-TOKOS: And Dr. Tovar mentioned that, while
21 generally they call it smoke inhalation, there's all these
22 toxins that they -- so many they don't normally test for
23 them, but those are all included in the inhalation of
24 combustible products.

25 MR. NOEL: The plan right now is to spend Tuesday
26 morning doing that clean-up evidence, hopefully hearing

1 from air -- the air quality control people, and then
2 Tuesday afternoon we will spend with the formal
3 instructions and walking through reading the instructions
4 to you.

5 And then Friday...

6 MS. DUPRE-TOKOS: Friday, we may submit one last
7 piece of evidence.

8 MR. NOEL: Right. Well, the plan is right now is by
9 Friday we will be in summation. There is one other thing
10 that has popped up that we may not be able to do on
11 Tuesday that may come on Friday. If that happens, we will
12 deal with it, but the plan is that Friday is going to be
13 about the summation.

14 GRAND JUROR NUMBER FOUR: Can we know what this one
15 thing is?

16 MR. NOEL: What?

17 GRAND JUROR NUMBER FOUR: Can we know what that one
18 thing is?

19 MS. DUPRE-TOKOS: We're trying to get one last set of
20 medical records for one additional enhancement, but we
21 have trouble finding the -- the victim and/or even getting
22 that person's name. We have the person's name, so we are
23 starting today sending out a subpoena on their behalf to
24 get the medical records of that victim, who was injured
25 and then we will submit the medical records without
26 putting on a witness. Unless we manage to actually find

1 that victim and that person wants to come in on Friday
2 morning, which I am thinking is not likely.

3 MR. NOEL: One of the things that we have found
4 through all of this is dispute all of your power and,
5 specifically, that -- your subpoena power, HIPPA trumps
6 and trying to get medical -- any medical information
7 specifically about people who were injured in the fire is
8 very, very difficult. And we have one person we know was
9 injured in the fire -- very badly injured, but all we've
10 got is his name.

11 MS. DUPRE-TOKOS: Well, and that took literally --

12 MR. NOEL: Yep.

13 MS. DUPRE-TOKOS: -- since December to get the
14 name --

15 MR. NOEL: Yep.

16 MS. DUPRE-TOKOS: -- because people don't understand
17 HIPPA so they freak out and won't give any information at
18 all.

19 MR. NOEL: So we literally had to subpoena the agency
20 to -- just to get the guy's name and now again to get the
21 guy's date of birth and what hospital he was treated at.
22 And I think we finally have enough that we can subpoena
23 the hospital records to show that.

24 MS. DUPRE-TOKOS: Yeah, we're guessing.

25 MR. NOEL: Yeah, we're guessing.

26 MS. DUPRE-TOKOS: We're pretty sure we know what

1 hospital.

2 MR. NOEL: Yes, we're taking an educated guess and
3 that hopefully we will have those records before next
4 Friday, so we will deal with that.

5 MS. DUPRE-TOKOS: If by some miracle, we have them by
6 Tuesday, we will deal with it Tuesday.

7 GRAND JUROR NUMBER FIFTEEN: I understand you're
8 doing indictments for the people that lost their lives,
9 correct?

10 MR. NOEL: Yes. Well, we're going to ask -- you're
11 going to be doing the indictment.

12 GRAND JUROR NUMBER FIFTEEN: Is it -- right.

13 MR. NOEL: We're going to ask you do that.

14 GRAND JUROR NUMBER FIFTEEN: Is there any way to
15 encompass that to all -- everybody else that didn't die
16 but was affected?

17 MS. DUPRE-TOKOS: Not --

18 MR. NOEL: Not really.

19 MS. DUPRE-TOKOS: Well, for the people who died,
20 we're going to be asking that you indict on manslaughter
21 charges, so obviously if they didn't die, it can't be
22 manslaughter.

23 GRAND JUROR NUMBER FIFTEEN: Sure.

24 GRAND JUROR NUMBER FOUR: Can I ask a question?

25 MS. DUPRE-TOKOS: Some --

26 MR. NOEL: Just a second.

1 MS. DUPRE-TOKOS: -- of the other charges may
2 indirectly encompass other people based on the language of
3 the statute.

4 MR. NOEL: So one of the other charges that -- that
5 we will be presenting to you and -- and asking you to
6 indict on is the 452 we've talked about from the
7 beginning, which is unlawfully causing a fire. That will
8 encompass all the victims. All 13,992 residences --

9 GRAND JUROR NUMBER FIFTEEN: Well --

10 MR. NOEL: -- 5,000 businesses.

11 GRAND JUROR NUMBER FIFTEEN: Yeah, I --

12 MR. NOEL: All of that.

13 GRAND JUROR NUMBER FIFTEEN: There's got to be
14 something.

15 MR. NOEL: Yeah.

16 GRAND JUROR NUMBER FIFTEEN: Okay.

17 MS. DUPRE-TOKOS: Because it -- it encomp -- it
18 provides for multiple residences.

19 GRAND JUROR NUMBER FIFTEEN: Okay. Thank you.

20 MS. DUPRE-TOKOS: -- or structures, so all the
21 structures that were destroyed or damaged would fall under
22 that, so potentially if they -- if an indictment was
23 handed down on that charge, then all of those victims
24 would be eligible for restitution.

25 MR. NOEL: And services, and then there's also --

26 MS. DUPRE-TOKOS: Yeah.

1 MR. NOEL: -- what's called an enhancements on that
2 for various things including great bodily injury or death,
3 which you'll get defined for you next week. Number of --
4 of houses or, you know, inhabited structures that were
5 damaged or destroyed and firefighters.

6 MS. DUPRE-TOKOS: Well, that's GBI.

7 MR. NOEL: Well, there's a separate enhancement for
8 if the firefighters are badly injured in this, and so
9 hopefully we will be trying to get that from you.
10 Unfortunately, like we said, the state agencies, medical
11 records, HIPPA, we can't talk about it. Not even a
12 subpoena. You know, you have to -- you have to know who
13 it is to subpoena it. Great, well, tell us who it is. We
14 can't tell you HIPPA. So it's been a lengthy and --

15 MS. DUPRE-TOKOS: I tried fighting with the state
16 trying to explain to them, no, that's not how HIPPA works,
17 but...

18 MR. NOEL: And, fortunately, she has been the one
19 that has been fighting that battle for the last three
20 months.

21 GRAND JUROR NUMBER FOUR: That kind of leads into a
22 question I have and that is -- I mean, you hear about it.
23 I don't know what the real law is on it, but can we name
24 unindicted co-conspirators?

25 MR. NOEL: You could. If we had any. I mean, if
26 this was a conspiracy case, absolutely. And -- but we

1 don't have a conspiracy case. So that -- that's -- and
2 honestly, I -- I have --

3 GRAND JUROR NUMBER FOUR: Well, if we believe that
4 in -- from the top down, a culture of neglect was
5 interned, couldn't we use that as a foundation for the
6 charge of unindicted co-conspiracy?

7 MR. NOEL: No.

8 MS. DUPRE-TOKOS: You could use that to indict
9 individuals in addition to the company, but like Marc
10 says, we -- there is -- we have not gone into the
11 necessary obnoxious, tricky evidence for a conspiracy
12 case. So that wouldn't -- you don't have what you need
13 for that.

14 But, certainly, if there is someone that you feel
15 there's probable cause to indict, you absolutely can do
16 that, even if it's not someone that we're requesting that
17 you indict.

18 MR. NOEL: Right. I guess the ultimate answer to
19 your question is, you've seen the jury instructions
20 already a couple of times for manslaughter. You've seen
21 the jury instructions for -- for the unlawfully causing a
22 fire, 452; they're a bit complex, and they tell you how
23 the elements and everything that need to be proven.
24 Conspiracy is a very, very difficult thing to charge. The
25 jury instructions for conspiracy are about three-pages
26 long full of elements. We don't have enough right now.

1 That doesn't mean that down the road we won't, but at
2 least for your purposes, there is not enough to show a
3 conspiracy, and so that would not be something we would be
4 asking to indict on.

5 Like I said, that doesn't mean if you guys finish
6 your business and you decide to indict, that is not the
7 end of the investigation for us. We keep -- we keep
8 going. And you know, maybe we can do that somewhere down
9 the road, but -- but we will see.

10 Let's see, did we have anymore --

11 GRAND JUROR NUMBER SEVENTEEN: Hearing the
12 environmental one that you're bringing up, will that --
13 the scope of that effect the air quality that extended all
14 the way from that region all the way to, like, the coast,
15 because the air quality was affected that far.

16 MS. DUPRE-TOKOS: The air quality was awful.

17 GRAND JUROR NUMBER SEVENTEEN: Hundreds of miles were
18 affected by that.

19 MS. DUPRE-TOKOS: Right. We do not have jurisdiction
20 in any other county. You guys don't have jurisdiction in
21 any other county. We will just be putting on evidence,
22 hopefully, of the effects here in Butte County. And
23 asking for indictment on that charge or charges for the
24 air quality here in Butte.

25 Yeah, we know the -- Sutter County was, what,
26 just 15 points lower than Oroville and Paradise, and the

1 Bay area was, like, 30 points lower in terms of being in
2 the dangerous level. But we are just going to be asking
3 based on the air quality here in Butte.

4 GRAND JUROR NUMBER SEVEN: So just air quality, not
5 the contaminated water?

6 MS. DUPRE-TOKOS: Not at this time.

7 MR. NOEL: Right. All right. Anything else?

8 All right. Before we -- we get to the witness,
9 we need to discuss the events that occurred at the end of
10 our last session on Tuesday, and make a good record on it
11 just in case we didn't at the time.

12 I think we were all tired and --

13 MS. DUPRE-TOKOS: Trying to get done.

14 MR. NOEL: -- trying to get done. Trying to get you
15 guys out of here before 5:00. As you probably noticed
16 that sometimes when we go past 4:30, somewhere around
17 4:30, 5:00, there's a knock at our door and a bailiff will
18 stick his head in and give us the signal, you know, it's
19 4:30, 5:00, and, you know, you need to wrap it up.

20 On Tuesday, the bailiff came, stuck his head in,
21 about 4:30, 5:00, and brought the rest of his body with
22 him. And, apparently, was very much insistent that we
23 were going to stop right away and would not leave. And I
24 know the sergeant-at-arms was at the back of the courtroom
25 talking to the bailiff. I know madam foreperson briefly
26 addressed it and we went on. He stayed in the back of the

1 courtroom until we finished, which is a violation of the
2 law. And it's an issue.

3 We have spent way too much time over the last
4 couple of days investigating it and, you know, basically,
5 it was a miscommunication within the court, and it won't
6 happen again. And he subsequently has signed a -- a
7 nondisclosure statement that anything he heard while he
8 was in here, he will not disclose anywhere else. He was
9 only in here for a few minutes, but he did hear the tail
10 end of the testimony, and that will never happen again.
11 And it -- it's been dealt with between our bosses, the
12 bosses of the court and the sheriff, and it was simply a
13 misunderstanding.

14 He didn't want to be here. He -- he was very
15 uncomfortable, but as his orders -- as the orders filter
16 down from the --

17 MS. DUPRE-TOKOS: The COO.

18 MR. NOEL: The COO, the chief operating officer of
19 the court and the presiding judge, by the time they got
20 down to him -- if any of you have played the telephone
21 game, apparently, those orders had gone from "Go see how
22 long they're going to be," to "Go drag them out of here."
23 And --

24 MS. DUPRE-TOKOS: And "Don't leave until they're
25 done."

26 MR. NOEL: And "Don't leave until they're done." So

1 he was doing what he thought were his orders and -- yeah,
2 like I said, that's -- that's been dealt with. It's been
3 taken care of, and if they have any more issues, you know,
4 we try not to go past 4:30. Sometimes we have to go past
5 4:30. Technically, the court is open until 5:00. We --
6 we've been out of here by 5:00 all but one day in a year,
7 and we stayed until 5:15 one day, but we have let them
8 know we will be out of here by 5:00.

9 So -- and then also on that, as part of the
10 meetings on that with the presiding judge, also
11 discussions of your potential deliberation schedule, and
12 the presiding judge has assured us that she will be make
13 whatever time available to you guys that you want or need
14 especially at the end. And what we told her is what we
15 talked about the other day is that, in the beginning,
16 you're going to stay with your Tuesday, Friday schedule,
17 8:30 to 4:30. If you don't have a decision by February
18 20th, then you may want to add some extra --

19 MS. DUPRE-TOKOS: March 20th.

20 MR. NOEL: Oh, March 20th. You're right.

21 March 20th, you may want to add some extra time
22 in there. You may want to come in on Monday. You may
23 want to stay late, whatever. So -- and the presiding
24 judge said as soon as she knows, you have madam foreperson
25 let the clerk know, and that the court will do everything
26 to accommodate you, so.

1 GRAND JURY FOREPERSON: Okay.

2 MR. NOEL: Are we ready to start?

3 GRAND JURY FOREPERSON: We are ready.

4 MS. DUPRE-TOKOS: Is the TV on?

5 MR. NOEL: Mr. McGormley.

6 GRAND JURY FOREPERSON: What's his --

7 GRAND JURY SECRETARY: McGormley.

8 MR. NOEL: McGormley. M-C-G-O-R-M-L-E-Y.

9 GRAND JURY FOREPERSON: McGormley.

10 MS. DUPRE-TOKOS: Yeah, he doesn't have that on the

11 PowerPoint.

12 MR. NOEL: Oh, that's right.

13 MS. DUPRE-TOKOS: You'll note that he doesn't have

14 his name on the PowerPoint so if you need to write it on

15 there, if you want it on there.

16 [Witness enters the courtroom.]

17 MR. NOEL: I have not touched this PowerPoint. If

18 anything goes wrong, it's not my fault. Mr. McGormley

19 made the PowerPoint and put it all together, and our

20 support printed it all out, so.

21 GRAND JUROR NUMBER NINE: Sure.

22 THE WITNESS: Can I get set up?

23 MR. NOEL: Yep, go ahead and get set up. I am also

24 relinquishing control of the smart TV this morning.

25 MS. DUPRE-TOKOS: Which is very hard for him to do.

26 Very.

1 MR. NOEL: You know the stereotype where the dad on
2 TV that has to have the remote control? That's me.

3 MS. DUPRE-TOKOS: Swear in.

4 MR. NOEL: All right.

5 THE WITNESS: All right.

6 MR. NOEL: All right. Once you're ready to go here.

7 THE COURT: Mr. McGormley, before you get started,
8 would you please stand and raise your right hand to be
9 sworn? Thank you.

10 Do you solemnly swear that the evidence you shall
11 give in this matter pending before the grand jury shall be
12 the truth, the whole truth and nothing but the truth so
13 help you God.

14 THE WITNESS: I do.

15 GRAND JURY FOREPERSON: Thank you.

16

17 **EXAMINATION**

18 BY MR. NOEL:

19 Q. For the record, can you please state your full
20 name spelling your last name?

21 A. My name is Jonathan Carl McGormley. Last name,
22 M-C-G-O-R-M-L-E-Y.

23 Q. Mr. McGormley, are you employed?

24 A. I didn't hear the question.

25 Q. Are you employed?

26 A. Yes, I'm employed.

1 Q. By whom are you employed?

2 A. I'm employed by Wiss, Janney, Elstner Associates.

3 Q. What is Wiss, Janney, Elstner Associates?

4 A. We're a structural materials and architectural
5 engineering firm that specializes in evaluating structural
6 performance and behavior.

7 Q. What do you do for Wiss, Janney, Elstner
8 Associates?

9 A. I'm a principal engineer, evaluating all sorts of
10 structural systems.

11 Q. Are you a licensed engineer?

12 A. Yes, I am.

13 Q. What type of engineering are you licensed?

14 A. I'm licensed as a professional engineer and a
15 structural engineer in several states.

16 Q. Can you walk us through your educational
17 background that qualifies you as a licensed engineer?

18 A. Sure. So I graduated from the University of
19 Cincinnati with a Bachelors Degree in Civil Engineering.
20 I then went onto Purdue University and received a Masters
21 Degree the Civil Engineering. After a certain amount of
22 time required for experience, I received a structural and
23 professional engineering license.

24 Q. How long have you been an engineer?

25 A. For 26 years.

26 Q. Now, do you have a specialty?

1 A. Yeah, I focus on -- on failures and fatigue and
2 fracture of -- of metals.

3 Q. How did you get into focusing on failure?

4 A. Well, that's one of the predominant activities
5 that our company works on, and I worked under a engineer
6 who was -- that was his specialty as well.

7 Q. How long have you been doing failure engineering?

8 A. Since I started for about almost 26 years now.

9 Q. Any big projects that -- that you've done?

10 A. Sure. So I have worked on several large -- large
11 failures. Notably one, maybe you recall, back in 2007 was
12 the collapse of the I-35W Bridge in Minneapolis. I worked
13 with the state of Minnesota and the NTSB to evaluate that
14 failure.

15 Most recently, I was engaged to look at the
16 failure for that building that collapsed in New Orleans in
17 October. I've covered a lot of failures in between.

18 Q. Do you commonly work for governmental agencies?

19 A. A lot of my work is for transportation agencies.
20 I work a lot of the transportation field.

21 Q. Federal and state?

22 A. Yes, for both.

23 Q. So you were retained by CAL Fire in the state of
24 California to look into why the hook broke on 27/222,
25 correct?

26 A. That's correct.

1 Q. And so you're under contract with the state of
2 California?

3 A. We are.

4 Q. And you're being paid for your services by the
5 state of California?

6 A. That is correct and this investigation.

7 Q. And being paid for your testimony here today by
8 my office, correct?

9 A. That is correct.

10 Q. So why don't you walk us through your involvement
11 with the Camp fire investigation?

12 A. Sure. Approximately a little more than a year
13 ago, we were asked to look at the failure of the hook
14 that, you know, caused the conductor wires to come in
15 contact with the tower. I came out in the beginning of
16 February or mid-February and toured the various
17 transposition towers along the line there, including the
18 tower that had the hook failure. I looked at a bunch
19 of -- all the documents that were provided, which I am
20 sure most of you have also seen a lot of those documents,
21 and then subsequently received the FBI report and looked
22 at that, and then began an analysis after CAL Fire asked
23 us to do an engineering evaluation of the hook.

24 Q. All right. Just briefly give us an introduction
25 as to what goes into your analysis and reporting?

26 A. Sure. So for this project, what we were asked to

1 do is -- we were asked to see if, through engineering
2 principles and properties, we could check the plausibility
3 -- or see if it was plausible that the hook had failed and
4 exhibited a certain amount of wear prior to its failure
5 was consistent with long-term wear, so something around
6 the order of a hundred years. So that was the -- the
7 concept. We wanted to see was it -- if -- was it -- was
8 it plausible. Was it -- was it likely? We can't say with
9 certainty, but we can say whether it was plausible or not
10 and using our engineering knowledge and technique to do
11 that.

12 And so we used some analytical modeling, some
13 computer modeling, and then we used some known principles
14 about wear to render that opinion.

15 Q. You said that you've reviewed some documents as
16 part of your investigation analysis, can you tell us what
17 documents?

18 A. Wow, there's quite a few.

19 Q. Just pretty much in general.

20 A. In general, we looked at the components that made
21 up the tower, the insulator strings. The -- the hooks.
22 The tower design itself. We looked at information about
23 the tower locations within the Feather River Canyon, and
24 then we looked at some general maintenance documents that
25 were put together by PG&E. We looked at a report
26 associated with some earlier wear on a PG&E component and,

1 as I noted before, we looked at the FBI report -- lab
2 report. Those are the bigger --

3 Q. Okay.

4 MS. DUPRE-TOKOS: Marc?

5 THE WITNESS: -- the bigger items.

6 BY MR. NOEL:

7 Q. So first of all --

8 MS. DUPRE-TOKOS: Marc? Weather data.

9 BY MR. NOEL:

10 Q. So first of all, you talked the historical
11 documents. You're talking about the blueprints and
12 schematics from the 19...

13 A. 1919.

14 Q. 1919, 1920 era that were provided by PG&E
15 pursuant to subpoena, correct?

16 A. Correct.

17 Q. And then you talked about maintenance documents,
18 those are always things that were provided by PG&E through
19 subpoena. You've talked about reports. You're talking
20 about the 1987 and 2018 PG&E applied technology services
21 lab reports on the hooks and the -- and the hanger holes,
22 correct?

23 A. Correct.

24 Q. And then the FBI reports, the things that were
25 put together by Sue Marvin, correct?

26 A. Correct.

1 Q. And that includes her raw notes, correct?

2 A. Correct. That was all in her information.

3 Q. Yep. And, finally, did you also use
4 meteorological data?

5 A. Sure. So we didn't have any documents, but we
6 had a lot of data that we were able to collect from a
7 weather station that was nearby, so that we used that
8 information, and I will talk about that as we go further,
9 how we used the information to help us analysis -- you
10 know, or help us in the evaluation.

11 Q. And as part of that, were you in contact with the
12 local meteorologist Kris Kuyper?

13 A. We were.

14 Q. Yep.

15 A. And he helped provide us some of the data that
16 was used.

17 Q. Thank you. All right. With that, why didn't you
18 walk us through your -- your presentation and your
19 analysis and, ultimately, what results you got.

20 A. Sure.

21 Q. We will jump in with questions as you go through.

22 A. Okay.

23 Q. But kind of let you have -- oh, I forgot.

24 A. Oh.

25 Q. You have Exhibit 1352 here in front of you,
26 correct?

1 A. That is correct.

2 Q. And that is the -- that is the presentation that
3 you're about to give us?

4 MS. DUPRE-TOKOS: On a thumb drive.

5 MR. NOEL: On a thumb drive.

6 [Exhibit No. 1342 was identified.]

7 THE WITNESS: Well, good morning. I am glad to spend
8 my morning with you guys. I understand that you're well
9 versed in this material now. So this should make my job
10 really easy.

11 So as we talked out -- talked at the beginning of
12 my testimony here, we were retained to evaluate the hook
13 that failed and see if there was plausibility if its
14 failure was as a result of long-term wear on the
15 component. And so what we did was an analysis, and I will
16 describe that analysis here in my testimony.

17 The important thing to remember is this is we're
18 -- we're looking at this somewhat at a high level, and
19 that the values were giving and I will give in this
20 presentation are -- are a value. They're not necessarily
21 the exact value. What we do is we provide some ranges and
22 we will see, does our number fall within those ranges? If
23 it does, then it suggests that it's plausible. We're not
24 providing certainty. Hopefully, with additional analysis
25 of data, we can refine that number, which fall closer to
26 the -- the numbers we have, but fall within that range.

1 So the idea of this approach was to see do the numbers
2 that we get seem reasonable? We know for a fact that the
3 hook failed, and that there's a certain amount of wear on
4 the hook and from that information, we see is it because
5 of long-term wear.

6 BY MR. NOEL:

7 Q. Let me interrupt you right there. Can you define
8 for us, for your purposes, the scientific purposes, the
9 difference between plausibility and certainty?

10 A. Sure. So as we do engineering, we try to
11 identify levels of confidence and percentages against
12 failures. So I want something to -- when I design
13 something, it's going to be 99.99 percent that it would
14 not fail, for example. We have certain designs that we --
15 or design philosophies that give us a confidence level.

16 When we're dealing with information at this
17 level -- and we will talk about when I say "level," what
18 it means is the preciseness of the data. We may not be as
19 confident that the data can fall in, so that there's a
20 range of that data. So what we're saying is it's
21 plausible if it falls within the range, and that is one
22 thing; and then as we were to improve our understanding of
23 the information, we may be able to approach more
24 certainty, higher confidence level that the answer we're
25 providing is as accurate as we can define it. And you'll
26 see that, as I talk -- I mean, this involves both analysis

1 of data plus somebody making a model to -- to try to
2 represent the real word behavior. Those can be very
3 complex. So we're just trying to -- do we fit within
4 this? If it does, then we know, okay, this makes sense.
5 If we fall way outside, then the suggestion is, at least
6 the assumptions we've made to get that answer which falls
7 outside of the range may be wrong or that the -- the
8 behavior that we've looked at or the -- the time that we
9 considered may be -- may not be accurate.

10 So that is our -- our intent is do we -- do we
11 fall? If it does, we say it's engineering -- through
12 engineering principles, it seems like a plausible answer
13 or solution.

14 Q. So do you have specialized computer software or
15 anything that you use to do these analyses?

16 A. We do. There's both a specialized computer and
17 specialized statistical evaluation of the data, plus our
18 understanding of materials to be able to render those
19 opinions.

20 Q. All right. Go on.

21 A. Okay. So speaking software, we have this
22 software package that we use. It's commercially available
23 called SAP 2000. It has a lot of capabilities. We use it
24 all the time, so this isn't the first time we used it. We
25 use it every day. And the nice thing is, it's well suited
26 for both non-linear and linear behaviors. When I say,

1 "nonlinear" -- or "linear," just assume something moving
2 back and forth that behaves the same every time. So when
3 we go "nonlinear," it means it changes given the
4 conditions on it. And so as you can imagine, the
5 insulators and the conductor wire, and the -- the -- and
6 the tie between them, all are complex behaviors to try
7 to -- to do mathematically. And so what we're trying to
8 do is represent that complex behavior in a computer model.

9 So, in general, what our procedure was, was
10 really to complete a computer model and that includes all
11 the properties, so it includes the weight, the stiffness,
12 it includes the -- the various friction conditions that
13 happened, right, we have a hook. It's going to have a
14 friction. It's going to be in contact with the hole in
15 the arm, then we have the various insulator components or
16 the insulators themselves are made up of a stack of
17 insulators. And so those are able to -- think like a inch
18 worm that kind of moves all around relative to each other,
19 so all of that has to be -- to be modeled. Then we're
20 going to take that model and we're going to excite it with
21 some wind, and then it's going to move around, and from
22 that information, we will collect how much it moves and
23 use that information to calculate some -- some results
24 that we can use to apply to wear.

25 And then we take that and, again, extend it as a
26 late step to this. Okay, now we have how much travel or

1 rotation that this hook moved, and we add that all up over
2 the life of the hook and we say, given some more certain
3 wear assumptions, does it add up to the material that was
4 removed prior to its failure.

5 So it's kind of the -- makes three -- three
6 steps. Seems really simple.

7 Q. All right. I want to step back real quick. The
8 title of the prior slide -- and -- and you used the term
9 "finite element analysis." If you can define that and
10 explain to us what it is?

11 A. Sure. Finite element analysis is a -- is a --
12 it's a method. And, essentially, makes your -- you make
13 all of the components -- and we will show some examples in
14 the discrete little elements. That -- that is the element
15 part of it. And those elements, through mathematical
16 properties and principles, have to interact with each
17 other. So if you were to take, you know, this desk and
18 make it up into a bunch of little -- little squares, then
19 this little square next to that square has to -- to have
20 to behave, and we have to tell him how we need them to
21 behave whether that's they need to behave exactly the
22 same, because this glass top is one piece of unit, or
23 if -- you know, if I put my bottle on top of the desk, the
24 fact that it's moving around, it will come in contact with
25 my desk, but it's not going to go through the desk. It's
26 not going to stick to the desk. So we can adjust all

1 those various behave -- interactions between the elements,
2 and then we run the software and it basically puts on
3 output that says here is what this structure does or
4 this -- this element does together.

5 So they can be very powerful, and they are used
6 to really model and analyze very complex systems.

7 Q. All right. So let's talk about the overview of
8 your analytic model.

9 A. Sure.

10 Q. Go through the basics with us.

11 A. So, again, as I said, we -- we had the model in
12 geometry. So we represented using drawings and everything
13 that we had available to us, the various components. For
14 this case, we did not model the tower, because we're
15 really not interested in the tower. We're interested in
16 the behavior of the components that are associated with
17 the left jumper cable -- making the jumper, and on the
18 left insulator string. So we modeled the insulator
19 string, the jumper cable -- essentially everything shown
20 there in the red -- in the red as well as the connecting
21 pipe, and then the three insulator strings. So that's
22 really the -- the area that we focused on, and there's a
23 hook on each one of those insulator strings. We did not,
24 as I said, look at the tower because, at this point, the
25 tower is probably not influencing the behavior of the --
26 on the wear on the hook. And then we used photographs and

1 measurements, as I said, from the FBI and some of the data
2 received from photographs from the district attorney's
3 office and CAL Fire.

4 So what you see is a representation of that
5 model. Now, it's -- our finite element -- our -- these
6 are just graphical representations for the purposes of
7 explaining what we're doing, but the model is essentially,
8 those insulator strings, the red conductor cable, and then
9 the blue -- bluish purple tie, or whatever you want to
10 call it, the conduit between them, kind of represents a
11 similar view of another transposition tower along the same
12 transmission line.

13 So as I said the -- this is -- if you think about
14 it, there's -- there's some friction that is going on.
15 There's a hook on the -- in the hole, and then there's the
16 various insulator units that themselves are able to move
17 relative to each other. So there's a ball and socket
18 between the insulators and the connectors, and so those
19 were all we considered, and we have to consider friction
20 because that's -- that's what is causing the wear that we
21 know observed -- was observed in the hook.

22 So then -- that's a -- that's -- friction is a
23 difficult thing to model so you have to use some known
24 engineering behaviors on that, and --

25 Q. Before we go onto that, I know this is a basic
26 question for you.

1 A. Uh-huh.

2 Q. But if you can just briefly explain to us, what
3 is friction from an engineering standpoint?

4 A. Sure. So friction is a result of -- of a normal
5 force or a force pushing down, and then there's a
6 coefficient of friction, so it's the -- the amount -- the
7 force would be the amount to slide, if we're going to say,
8 or move an element relative to another one that has normal
9 force on it and has some amount of friction and that
10 coefficient or friction depends on the surface of the
11 material so that coefficient can be very slippery if it's
12 lubricated, or it can be very coarse if the material the
13 interlocked together. If you can think about that. Take
14 something -- a piece of sandpaper and you try to put two
15 pieces of sandpaper together and try to push them, you're
16 going to get high friction. If you were to put, you know,
17 two wood blocks together and put some oil in between them,
18 they're going to slide, you know, relative to each other,
19 pretty easy. And so what we try to define is -- is that
20 stick and slip. So we're -- where it sticks together and
21 then it slips, so we're trying to model that. So as
22 this -- in the representation of the hook, the hook is
23 going to be sitting there, bearing. So it's got force,
24 and then there's some coefficient of friction between it
25 and the hole of the angle, and then we're going to try to
26 move it, and it's going to have to overcome that friction

1 between the two pieces in order for it to move. If it
2 doesn't overcome it, then it just sits there. If it does
3 done move then it -- then it moves. And what we're going
4 to see as it starts to move, because it can overcome that
5 friction, the wind blows are such that they can make that
6 hook relative to the angle move. But that's friction. So
7 that -- that's a know -- very well-known behavior. Now
8 the coefficient of friction depends really on the
9 material. For this case, we don't know that for sure, but
10 we can, from interfering behaviors, we can pretty well
11 identify what it should be, and we know for two steels on
12 steel that aren't necessarily lubricated -- because nobody
13 was going up there squirted oil in between the -- so we
14 know the coefficient of friction is somewhere in the order
15 of about .57. If it was -- if it was really stiff, it
16 would be closer to one, if it was zero, then there would
17 be no friction. It would just be able to slide and never
18 stop, because it would never slow -- slow down. We're
19 somewhere between those ranges.

20 Q. Are you familiar with the term body-on-body wear?

21 A. Yes.

22 Q. How does body on body wear relate to friction?

23 A. So we will discuss, at the end, all of the
24 details about wear, but the idea is that two materials
25 that -- that touch each other and depending on the force
26 that is in their contact, they're going to -- little bits

1 and pieces of that material one or the other, depending on
2 the hardness of the material -- we will talk a little bit
3 about hardness as well -- will start to remove -- so just
4 think about, if you took a piece of sandpaper and you're
5 sanding the wood, you're obviously removing pieces of wood
6 that you're using with your sandpaper. So that's
7 body-on-body wear. It's starting to remove some of that
8 wood. And so -- 'cause the wood is much softer than the
9 granite -- or the garnet or whatever sandpaper you're
10 using.

11 So this is similar, but this just happens to be
12 two metals that are in contact with each other as opposed
13 to a piece of wood and a piece of sandpaper.

14 Q. All right. If you can explain to us joints with
15 friction?

16 A. Sure. So, again, here is examples when we talk
17 about the joints. We have the hook in the -- in the
18 bracket hole, and then we have the -- kind of, the ball
19 and socket joint of the insulator in the string of
20 insulator, so there's a stack of insulators and those are
21 all as, I said, are able to kind of jingle around.

22 So we model, mathematically, the friction. And
23 so what we do is -- shown here is a typical output from
24 a -- from a friction behavior. So as the -- as the force
25 goes up, or deformation, then it -- it goes to a certain
26 point, and then it'll slip and then it'll stop and build

1 up force and slip. And that's what you're seeing on
2 the -- the various arrows there, the -- the vertical ones
3 are really the sticking point. So the material is trying
4 to slide, and it can't slide until it gets to a certain
5 force, and then it slips and then it slides and then slips
6 and sticks and so forth. And that's the process by which
7 we model. We apply this type of behavior to our -- to our
8 hinges. And I know it makes -- you know, like, well, how
9 do I model? But this is -- the idea is you try to put
10 these -- everything gets expressed in terms of a
11 mathematical equation, and that then gets parts of the
12 software that outputs the results.

13 Q. Can you explain, very quickly before we move on,
14 there's the term -- I don't know how you pronounce this,
15 hysteresis?

16 A. Yeah, hysteresis. So --

17 Q. Hysteresis.

18 A. -- is the -- if you were to follow a -- the same
19 line, it would go up and down. If you apply a load, it
20 might go, but what we have is if we apply a load and it
21 slips and apply a load and it slips, and so it can repeat
22 itself over and over again. And so it's just a hysteretic
23 move is -- is the idea that it follows a known pattern and
24 just repeats itself. Sometimes that -- it can go up and
25 down, if it's purely elastic and just stays in the same
26 line, but because we're -- we're going up and we're

1 slipping, we don't end up in the same spot each time. So
2 that's why the line comes back down and goes up, because
3 we're -- we're advancing along. We're moving the block,
4 if you want to say, or moving our sandpaper along the
5 wood. And so as it does that, then it repeats it, keeps
6 going along the line.

7 If -- if nothing was -- was moving, we would be
8 apply a force and then go back, apply a force and go back.
9 It would just stay on the same line moving back and forth.

10 Q. And then we probably have already done this, but
11 just to be safe, what is an isotropic hysteresis model?

12 A. So isotropic is one -- one dimension and then,
13 again, where this is the -- the -- the definition of what
14 we apply to in our models, so this has got a mathematical
15 formula that is represented in the SAP model for this
16 behavior.

17 So what we're telling the -- the model is we want
18 it to behave like this. We apply a load, and we want it
19 to build to a certain point, and then have it slip and
20 then build to a certain point and have it slip. So that's
21 the model -- that's the mathematical formula that we put
22 into the model and say that's the behavior that we want to
23 it to do. So it's highly dependent on what I pick as the
24 variable believe of when it slips, right, and I said we're
25 going to use -- based off of the understanding of the
26 material, we're going to use .57 of the coefficient. If I

1 were to change that coefficient, then this model could
2 change in terms of how much force it takes and how much
3 deformation you get before you see it slip.

4 Q. All right.

5 A. Okay.

6 Q. Thank you.

7 A. So part of the model we looked at is -- well,
8 it's a very complex, right, we have three dimensions. It
9 can do things in all dimensions, but what we saw when we
10 looked at the hook, we can see the wear. This is a hook
11 from a picture from the FBI lab of a different
12 transposition tower. What we said is, well, if you look
13 at the angle, if this was the bracket and my hook is going
14 around it, it's -- it's not doing this, which is what I am
15 depicting in this animation here.

16 Q. Right. On the -- on the left, we have a -- we
17 have an animation showing -- the arms, the holes, the
18 hooks, the insulators and the pipe.

19 A. Right. So they're moving with the hook trying to
20 go around inside the hook. If everybody understands the
21 direction of that. And so that's not consistent with the
22 wear. So the wear itself looks like the hook is rotating
23 sideways. And so I can show you -- jump ahead to that.
24 So it's more looking like the wear from this. So as
25 this -- as these hooks, which shown here, are swinging
26 together side to side, they're grinding their way through

1 the angle. In this case, the bracket, so --

2 Q. By "here," we're talking about the 2D together
3 animation on page 12 of the presentation, correct?

4 A. Correct.

5 Q. Okay.

6 A. And so if I go back to the original animation on
7 page 10 and we show -- we were able to eliminate some of
8 the behavior based on the evidence of what we saw. And so
9 we said, the behavior is two dimensional meaning it's only
10 going in one direction. It's not necessarily going in two
11 directions at the same time. So that simplified our
12 modeling and made -- made the behavior a little easier to
13 evaluate. So -- and I will explain that a little bit
14 further in the next slide.

15 So, again, we're idealizing something that, in
16 real life, is a complex little system. It may not seem
17 complex, but try to mathematically model it. It is rather
18 complex. So we use what we call a lower-bound solution,
19 and we constrained it to do two dimensions, so as I showed
20 in this -- this slide on page 12, that's two dimensions.
21 It's just rotating in this direction. So that's when I
22 say, "two-dimensional movement," moving just in this
23 direction, all the hooks, and they happen to be moving
24 together. We constrained it, so we say left -- swing
25 left/right is restricted. So we -- we let our model form
26 -- we're not going to let it go like the photo in -- or

1 the animation on page 10. Because the animation in page
2 10 is not consistent with the wear of the hook in -- on --
3 shown on the same photo on page 10.

4 So that's fine. We can do that two dimensional.
5 But we realize that's -- that's a lower bound. That's
6 kind of a lower estimate of what we think that behavior
7 would be. It's kind of conservative in the sense that it
8 only captures that two dimensional behavior.

9 Now, if we were to eliminate the -- and which is
10 what we did. We eliminate the -- the right -- eliminate
11 the right insulator, just for modeling simplicity 'cause,
12 again, these models sometimes took a day to run each, so
13 they can take a lot of time. So to eliminate that we just
14 said, what happens if we took the subject insulator -- the
15 one on the left. We disconnected it from everything. We
16 let it move in a three-dimensional behavior, because maybe
17 the effects of the wind on the -- on the jumper cables and
18 everything make its -- even though it wants to
19 predominantly move in that, you know, two-dimensional
20 direction, maybe it wants to do a little bit of twisting.
21 And so we call that an upper bound solution because it's
22 -- it's totally unconstrained from the other insulator
23 and, by doing that, it kind of gives the most -- the most
24 movement you can get in essence. So it's the upper bound.
25 So we say -- for the first one, we're going to say, well,
26 we may be underestimating the capacity of -- or how many

1 rotations we're getting by simplistically modeling it as a
2 2D, then we disconnect the one and we make it a 3D and
3 that gives upper bound. So the idea is that at the
4 beginning, we're just trying to see if we're -- it's going
5 to work. Are we -- are we plausible in this situation?
6 So we try to pick a number, or pick a -- try to pick a
7 model that kind of represents the -- the most it can be
8 and one that realistically is the lowest it can be, and if
9 our number falls in between then that suggests that my --
10 my system is some combination of that. We just don't know
11 exactly what that combination is.

12 So as I said, this -- this is the behavior that
13 we modeled, so think of it as a trapeze swinging on the
14 hook back and forth. The hook rocking side to side. And
15 then we -- this is another possible behavior where
16 they're -- where they're not in phase, the two ones, so
17 this is pretty complex behavior so to simply that, we just
18 remove we just remove the insulator on the right. This is
19 an animation showing opposite behavior on page 15 of the
20 presentation.

21 So if you -- as you can see the -- right now this
22 behavior is -- there is that conduit that is tying them
23 together. This -- this -- at least that picture. If I
24 were to remove that conduit or remove the insulator that
25 is attached at the -- at the far right end, then it's
26 likely it would move a little bit more, the insulator that

1 we're most interested in. The one that had the hook that
2 failed.

3 So, again, when I talk about -- this is a -- is
4 operating in a 2D behavior, but if I remove the one --
5 what we did in our model is we removed the right insulator
6 and we let it go 3D so it can move however it wanted, and
7 you can see that it -- that's why we say it's the upper
8 bound, because it -- the right insulator is no longer
9 involved in it whereas it would normally help stiffen it
10 or maybe contribute to the behavior of the left insulator.

11 So, again, we're trying to simplify it, but at
12 the same time, try to provide a window that which we want
13 to see if our engineering numbers fall within.

14 So, the last section was really associated with
15 developing appropriate models that try to represent the
16 behavior of the -- these insulator components, the jumper
17 cable and the conduit relative with the hook and the
18 angle. So that's -- that is that first effort that we
19 did. So we tried to come up with a computer model that
20 represented that and that's what we talked about.

21 So now, I have got this model sitting in my
22 computer, and now I need to make it move. Because in
23 order for the components to wear, it's got to be moving.
24 So one of the mechanisms that seem the most logical is
25 that is the wind that's driving it. Nobody is out there
26 moving it around, and -- and normal behavior of the

1 insulator doesn't necessarily make it move to the degree
2 that you get any type of long-term wear. It needs
3 something that's generally getting this -- these
4 insulators excited and wind is the most obvious. So this
5 is where we start to talk a little bit about what kind of
6 loads we're going to put on the -- on the model. And
7 as -- we discussed, we were in contact with a
8 meteorologist familiar with winds in this area, of
9 particularly this area of the state, and with the Feather
10 River Canyon winds themselves. And so there happens to be
11 a weather station that was put in a mile or so down canyon
12 from the subject tower, the transposition tower, and so
13 "TT" represents transposition tower, and then the "WS" is
14 the weather station. So pretty close. It's pretty good.
15 Some places, you have to go miles and miles to find an
16 adjacent whether station. So we had, I think, good data
17 and in particular in -- in the canyon, the -- I can't use
18 data out -- somewhere out here in Oroville, because the
19 behaviors are way different. We are going to explain that
20 a little bit.

21 So that's the weather station shown on the -- on
22 the right. It's on a ridge. It collects all the -- the
23 data and reports that as collected data. Now, as you can
24 see in the -- kind of the figure -- and hopefully you can
25 see this -- there's a little red line. And so that
26 generally represents the canyon direction, thus the winds

1 coming down the canyon would be generally in that -- it
2 would be that way, so that's the general direction of the
3 canyon. So it's about 30 or so degrees from -- from north
4 is the orientation of the canyon. When you get down to
5 the weather station, if -- the blue line kind of
6 represents the up canyon. It's a slightly different -- so
7 it's coming out of there at about 200 degrees, so if this
8 is 180 and that's 360, my winds are coming down canyon
9 this way, and then at the weather station they kind of
10 come a little past 180 going back up this way. That's
11 because the canyon is a little less well defined once you
12 get south of the weather station. But the idea is it
13 looks -- to get a red line, both experience very similar
14 wind directions generally.

15 So what do we do? How do we use the information?
16 Well it's, like anything, we just can only get what the
17 data is -- that's collected. And at the Jarbo weather
18 station, they give hourly mean values and max values, and
19 then the direction of those winds -- where they come from.
20 That is all the data is. It's an hourly point, every day
21 of the year, collected data point that says here is my
22 mean wind, here is my max gust wind and what direction are
23 they coming from. So that's a little challenge if I am
24 going to apply winds to my model because all I would have
25 is one hour of data, and it just tells me one data point
26 that the winds were coming out of the -- out of the

1 northeast with a gust speed of 25 miles an hour. Well,
2 that's -- I can't really apply that to my model. That's
3 just one data point. So I can't get my model to even
4 move, other than if I apply the force equivalent to
5 25 miles an hour and my -- my trapeze, if you want to
6 say -- my system would move but it would just sit there
7 because I'm -- and then I would turn it off and then it
8 would now isolate. That is not really how structures
9 behave. If you go outside and you feel the wind, as you
10 can see from this graph, the wind is -- is a -- is a
11 fluctuating value, right? It's -- it's blowing on you,
12 you can feel the -- the pressure, and then it goes off and
13 then there's a little bit less and then it goes back and
14 forth. So that's really what we to represent. That's not
15 collected necessarily in the hourly data, so we have to do
16 some statistical work to get that to represent something
17 that can be useful for our evaluation. So what is
18 presented on the slot there is the hourly points for every
19 day of the month -- this happened to be January of 2018.
20 Every day of the month, and you can see areas that are
21 clouded, three areas. And what's interesting about those
22 is those, if you're a wind engineer, they -- they
23 represent what they call well-behaved winds. They --
24 they're -- they're traditional turbulent-type winds that,
25 as you can see, they're kind of not necessarily constant,
26 but they're not all a zigzagging behavior. So that tells

1 us, okay, we can use that information, those well-behaving
2 winds. We know a lot of about those. We've studied
3 those, we can apply that information. We know about
4 well-behaved winds to this particular model. And also, if
5 you look at the -- the lower graph, that's a direction.
6 So the bottom line means down canyon, so the winds are
7 coming down the canyon. Whereas in the other direction,
8 almost opposite that. It would be up canyon.

9 You can see that the winds, where I've circle
10 above, correspond nicely with -- they're always a down
11 canyon winds, so the flat lines there that you see
12 represent -- it's a direction. So it's nearly a constant
13 direction from the down canyon direction.

14 So again, that helps us, kind of quantify where
15 the winds are -- in this area are very directional. If
16 you're not -- you know, if you were to stand down here,
17 you would get winds kind of coming from all over the
18 place, from different directions, and you would be able to
19 see that. We will talk a little bit more about it in a
20 couple of slides, but the idea is that we have for
21 down-canyon winds. We have well-defined winds so they're
22 kind of nearly constant, and they come in one direction,
23 and we don't have them all the time. But the point is is
24 where we do have them, we can define those; and then the
25 other locations, we have to make some assumptions about --
26 about that wind.

1 Q. So all of this wind data that is reflected on
2 page 16, that's all coming from the Jarbo gap RAW station?

3 A. Correct. So we did -- there's a -- there's a
4 graph. There's a gray line, it says "G equals 1.6," so we
5 did some mathematical -- where we take the -- the max
6 value over the -- the gust value over the mean value and
7 we see 1.6. And "well-behaved" means that those values
8 are nearly constant. So you can see the gray line with
9 the "G" right here. There's a lot of variability in that
10 gray line if you go to the left, but in those areas where
11 the -- where are circles then that line is merely a flat
12 line relative for all the other data.

13 So that's where we described -- "well-behavior"
14 means that gust factor the dividing gust -- peak gust by
15 the -- by the mean value is nearly a constant value. So
16 that tells us, well, that is well-behaved value. I can
17 pick any time during that wind event, and I essentially
18 have the same wind structure throughout that.

19 MS. DUPRE-TOKOS: Mr. McGormley, any time you need to
20 stand up and point and stuff feel free.

21 THE WITNESS: Okay. I wasn't sure if you needed me
22 to sit --

23 BY MR. NOEL:

24 Q. Something else that --

25 A. -- near the mic.

26 Q. No. On -- here on the left side of the upper

1 chart, says "mile" -- or MPH, which I assume means miles
2 per hour, correct?

3 A. That's correct.

4 Q. Factor and ratio?

5 A. Right.

6 Q. Can you explain to us what that means?

7 A. Right. So that's -- it represents multiple
8 values. So we have the wind in miles per hour in terms of
9 a -- presented in the blue and the -- so you see the dark
10 blue is the mean. They have as the average value that we
11 get for the weather station data once an hour, then we
12 have V max, which is -- which is the gust, so we get that
13 from the -- from the weather station once an hour; and
14 then we have the gust factor, which is the ratio of the
15 mean and the -- and the max, and then below is the
16 intensity and that helps us, again, because that's a --
17 it's a variable that helps us tell kind of the overall
18 behavior of the wind. So this is just plied with -- with
19 a mathematical division of -- of gust factor by mean, it's
20 essentially just a whole bunch of the data points that
21 have been connected by lines to represent the -- the wind
22 data that came out of Jarbo weather station over the month
23 of January 2018.

24 Q. Okay. And then down here at the bottom of this
25 top chart, we have zero through 31. It says "days of the
26 month," I'm assuming that that is representing January 1st

1 through January 31st?

2 A. Correct. And then the -- here this is comparable
3 data for February and so forth every month.

4 Q. Okay, right. And then the bottom chart says
5 "wind direction. 0, 90, 180, 270, 360" can you briefly
6 explain that for us?

7 A. Sure. So you got a weather vane and it's in the
8 weather station, and so it tells you which direction the
9 wind is coming out of. And so for every data point, it'll
10 say what direction that wind came from predominant out of
11 that hour worth of the data. And so you plot all this
12 data and you can see that sometimes the wind comes out of
13 -- well, so 360 would be out of the north, zero would,
14 again, be out of the north. And so, as we go around the
15 clock, if the letter, which we said was 30 degrees or so,
16 is coming down canyon, you would look at all those areas
17 right at the red and you would see that it's
18 approximately, you know, coming out of -- out of there
19 somewhere in that rough direction. If you get up to the 2
20 -- 270 or a little bit less than that, because we said it
21 was 200 degrees or so coming out -- out of canyon that you
22 see that direction, and then everything in between. But
23 you can see long periods where the wind is comings just
24 solely out of the northeast.

25 Q. Okay.

26 A. So these -- this is -- this is the data that we

1 didn't -- other than divide the data and calculate the
2 intensity factor, this is data that we got for -- for
3 about nine years' worth of data out of this weather
4 station. So every month, every hour for nine years is
5 data.

6 Now, there's -- it's there a little bit longer,
7 but prior to that, according to our meteorologist, some of
8 the data wasn't consistent, so that may mean that the --
9 for a while, the weather station might have been broken.
10 The weather vane might have been -- who knows what is
11 going on. So we -- we don't have that. We're relying on
12 the nine years that is going to be defined as the best
13 range of data. We took all the data for nine years --
14 every month, every day, every year and looked at that
15 data, and then extrapolate it.

16 Q. All right. So if you can move on to page 17 and
17 you could explain to us the hourly wind data chart.

18 A. Right. So this is -- this is, again, a series of
19 -- of taking that wind data and applying it a little bit
20 differently. So now we have wind direction from gust
21 speed, which is -- you know, the previous chart was the V
22 max, and then you had the turbulent range, which is the
23 mean wind speed, and then -- and wind direction. And you
24 can see that, if I plot all of those, you start seeing a
25 stack of -- of wind data that says, well, when I get wind,
26 it's kind of concentrated on that 30 to 60 to a little

1 more kind of range. So this is further evidence that --
2 that the -- particularly some of the higher level winds
3 are coming down canyon, and if you were to go to the
4 opposite end, closer to the 270, you see -- you don't see
5 quite as much peek winds coming up canyon.

6 So this is, again -- further kind of describes,
7 well, what is the behavior? The dominating behavior, we
8 believe, is down canyon-type winds that are driving this,
9 which makes sense. The cool air up in the mountains comes
10 down the valley, and that causes the wind.

11 Q. Why is that important?

12 A. Well, for this analysis, it -- it allowed us to
13 focus our efforts in a -- in a single direction. That
14 simplified the analysis and gave us an opportunity to not
15 have to worry about -- which was fairly well defined --
16 not have to worry about the 360-degree direction of the
17 winds coming from everywhere. Obviously, over the life of
18 this structure, it saw winds coming from different
19 directions, but they're very low and we will talk about,
20 well, what's the impact of those low winds on -- on ration
21 of the hook. They don't -- they're not dominated by --
22 the higher winds help dominate that motion, which makes
23 sense, right, I've -- you know, the heavy -- each
24 insulator string weighs about 225 pounds with its
25 attachments and forth. So I have to get something 270 --
26 225 pounds moving so it's got to be something more than

1 just a little calm breeze.

2 Q. All right. So talk to us about the turbulence.

3 A. Yes. This is a little more complex.

4 Q. This is stuff that's scary for us non-math
5 majors.

6 A. Yeah. So this is where wind engineering
7 really -- you know, the statistics of wind engineering.
8 So, as I said from the beginning, we have hourly data
9 points and what we want to do is turn that into a
10 function -- a forcing function. Something that I can
11 apply to my model. A mathematical equation that I can
12 apply to my model that represents what we think the wind
13 is. And, as I said, wind is not a constant pushing on
14 this structure for a continuous amount. It has a
15 behavior. It has a certain type of -- of peaks and
16 valleys that you would expect when you walk outside and
17 feel that wind.

18 So there's -- wind engineers have studied this
19 and they've determined that there's a way to represent
20 this and determine the behaviors of this, and they -- and
21 what the graph really shows is if I -- on the structure
22 response, which is the dash line shown right here. If I
23 took a structure and it had every -- every structure has
24 what it's called is its natural frequency. It -- it has a
25 natural vibration to it. And, since we're in California,
26 you can see that happens with earthquakes. If you have an

1 earthquake and your structure has a frequency that matches
2 or are very similar to the period of the earthquake, you
3 get a lot of damage, because it excites the structure a
4 lot more. Same thing happens with wind. If I were to put
5 wind down there, it would be at the nature frequency of a
6 structure, you get it to excite a lot.

7 So in this -- this is an example of what we call
8 a power spectral density, which is a statistical way of
9 defining a -- a non-uniform frequency. In this case,
10 we're using wind. You can use it for electrical current.
11 There's a lot of different things. A signal. A not of
12 non-uniform ways can be defined by this. So it's really
13 just a way of defining the wind and defining in terms of
14 its frequency. How many -- how many -- how -- what's
15 the -- what's the density or how often is a particular
16 frequency found? So the units are a little screwed up,
17 because we use it to represent non-dimensional, but what
18 we're saying here is, for this kind of frequency, I have
19 -- a lot of frequency falls in this band here, and then
20 less frequencies fall down here. So it's like a summation
21 of all the frequencies of that particular wave form. So
22 if I were to apply wind, when we analyze that wind, we can
23 break it up into a whole bunch of -- how much frequencies
24 fall here and how much there and it kind of creates this
25 curve.

26 What we want to -- what I am looking at here is

1 is -- well, does this line up with this? Well, it
2 doesn't. So we know that the frequencies tend to be, in
3 this case, the power of the -- of the winds are less than
4 the frequencies of structure. This is just an example to
5 kind of explain the process that we have taken a whole
6 bunch of data points, and we -- we can say this -- this
7 data or this -- these individual one hour things will
8 behave as a power spectral, and so -- I am going to skip
9 to the next slide.

10 Q. Well, let me ask one thing before we go on.

11 A. Sure.

12 Q. You said -- remember, we have to get all of this
13 on the -- on the record nice and clear. You said, "We
14 need to see how this relates to that," and you were
15 pointing at the screen. Just for the record --

16 A. The wind spectrum.

17 Q. Yeah, the wind spectrum. I guess, this -- is
18 this a bell curve? Is that what this is?

19 A. Well, it's -- it's -- it's just a power spectrum.

20 Q. Okay.

21 A. So the -- the -- that blue represents the
22 frequencies of the particular wind, and how they relate to
23 the frequency of the structure.

24 Q. Right. And that's -- that's what I want to --

25 A. And this is just purely shown as a discussion
26 point to the next slide, which says as -- as wind

1 engineers, they have defined -- they've studied all of
2 this, and they say, hey, there's standard wind behaviors
3 that we know for certain characteristics -- exposure
4 characteristics. And those exposure characteristics are
5 based on the surface roughness of the -- the service
6 roughness of the ground in front of -- prior to you
7 getting to the structure that you're looking at.

8 So -- and I will tie that back to the figure here
9 in a second. So what happens is is we have wind blowing
10 across the surface. If the surface is really rough,
11 there's trees or obstructions or buildings, then that
12 changes the way the wind behaves, because it kind of gets
13 interrupted. It gets focused, if you can think about
14 that. If I have got more broad, open areas, then the wind
15 is kind of able to go unobstructed. It doesn't get all
16 turbulent and gets all riled up, it kind of just flows
17 along. So those exposures have been well defined as well
18 and so this area would be considered exposure. See,
19 there's trees and valleys, but the point is is coming down
20 the valley, down the canyon, there's really not anything
21 obstructing it. That's why that wind gets moving along,
22 and so we would call that exposure C. There's a defined
23 behavior of the wind that engineers have developed that
24 matches exposure C. There's also ones for exposure B and
25 D, and A used to be involved and people still use it, but
26 it's not really recognized anymore.

1 So just imagine somebody has developed a
2 mathematical spectrum of wind -- behavior of wind for
3 exposure C. And so that's what we talked about, a
4 mathematical definition of the spectrum is used to
5 generate a time history of the winds, so --

6 Q. Okay. Let me -- let me interrupt you one thing
7 real quick here. Just to -- as a mechanical or structural
8 engineer, is it common for you to work with wind
9 engineers?

10 A. Well, wind engineers are oftentimes structural
11 engineers.

12 Q. Right.

13 A. Yeah.

14 Q. Is it -- it's important especially if you're
15 building a -- for instance, a tall building --

16 A. Absolutely.

17 Q. -- or a bridge, wind is going to play a huge
18 factor in that, correct?

19 A. Correct.

20 Q. Is it accepted if the engineering community
21 for -- you know, to rely wind engineers?

22 A. Well, absolutely. If you're -- for specialized
23 structures.

24 Q. Yep.

25 A. So we use -- we have a wind engineer on our --
26 works for us and he's specializes in this ability to -- to

1 look at wind and define it. So what I -- this slide is --
2 is the ending of this slide. So if you would imagine,
3 there's a spectral, a plot or a frequencies function that
4 says, for exposure C, we're going to develop this spectrum
5 and they know what that spectrum is. So this is just --
6 when I talk about spectrum, this is when we're talking
7 about statistical representation of the wind. That's what
8 it is, but there is one that has already been kind of --
9 the wind engineers have defined for a category C. And so
10 that's -- that's what we're able to use, because -- we're
11 able to see that because, again, if we double back to the
12 -- to slide 16. We're able to look at those areas and say
13 the area circled in red behaves like a C exposure wind.
14 And so we can say, okay, they -- they behave like a C
15 exposure wind so now we can take the mathematical model
16 that we currently have for exposure C and use that to help
17 generate winds that we can then apply.

18 And so this is a -- is an example of that.
19 That's a time history of -- of a wind. So this -- if you
20 can imagine, if you start at the end of the graph, at time
21 zero, and then this goes through time two minutes. Just
22 think of feeling -- this is wind blowing, this would feel
23 like winds, right? It would be kind of blowing on you.
24 It's a little higher, a little lower. It goes down. It's
25 kind of -- it's not an even constant value. So this is
26 what we would -- for a -- this happens to be for a 37 mile

1 an hour wind, this is what would feel or this is the -- he
2 time history of the wind. So what we do is take for a
3 particular spectral density, we take that information --
4 in this case for exposure C data -- and we know the -- we
5 pick a wind speed and we put it into the formula and here
6 is what we're going to apply to our model and we're going
7 to do it at 37 miles an hour for two -- two minutes.

8 Q. Right. So when you refer to "this," you're
9 referring to the -- the graph on page 20, correct?

10 A. That's correct.

11 Q. And the blue line moving left to right on the
12 graph, that represents the -- the wind?

13 A. That represents the wind speed in miles per hour
14 over time.

15 Q. And after applying the various wind engineering
16 models, correct?

17 A. Right. So this is developed out of the wind
18 engineering. So we take that spectral density, that
19 spectral plot, and we say -- we make some assumptions.
20 Like we said, this -- this is particular wind. We can
21 pick a particular wind and that one was 37, this one shows
22 40, and then we pick a distance of that wind approaching,
23 so we're saying 500 feet here, and this would be a
24 response. If we take that formula, and we plug in what we
25 know about -- we take that category C or exposure C
26 formula, we can then plug in a particular wind speed -- in

1 this case, 37 miles an hour -- we will get this varied
2 ability 'cause if I were to take that, I can add up all
3 the frequencies, and they would all kind of stack up. So
4 the frequency in the middle -- I am pointing to the blue
5 line on the graph of page 18. The -- the -- also this is
6 made up of a whole bunch of frequencies and -- and the
7 number of frequencies of the same frequency. So in this
8 case, this -- this frequency down here is the most common
9 frequency, if you want to say. If I look at the graph
10 then, shown on page 20, I would find that there's -- there
11 is a common frequency if I were to kind of average all
12 this out that would be that peak in the graph. But in
13 reality, this is representative of what we would feel in
14 the wind. So what we then do is we take this graph, on
15 page 20, and that's mathematically derived so I have an
16 equation that represents that, and I put that on the
17 model, and so the model -- as you'll see in a couple of
18 illustrations -- will then see that wind pushing against
19 it representing this variation in winds. So that's -- out
20 of a couple of hourly data points, we can use wind
21 engineering to create this, which is really what we think
22 is, you know, how the structure is behaving from the
23 winds. It's blowing on the variability peaking and so
24 forth. So we can use statistics with -- with confidence
25 of knowing that I take those points, because of the
26 behavior of the wind, I can get to a point where I can

1 actually create known wind time histories that I can apply
2 to my model.

3 So a couple of data points can -- if you know
4 what you're doing can actually give you something that is
5 pretty meaningful.

6 MR. NOEL: All right. Before we move in -- move on,
7 Madam Foreperson, it's 10:00, we have been going about an
8 hour and a half.

9 GRAND JURY FOREPERSON: Yes.

10 MR. NOEL: We can go ahead and take the morning
11 break.

12 GRAND JURY FOREPERSON: 15 minutes, please.

13 MS. DUPRE-TOKOS: And, Mr. McGormley, you'll need an
14 admonition from madam foreperson.

15 MR. NOEL: Oh, that's right.

16 GRAND JURY FOREPERSON: Just reaching for my paper.

17 GRAND JURY SECRETARY: She's getting it.

18 GRAND JURY FOREPERSON: Mr. McGormley, you are
19 admonished not to discussion or disclose at any time
20 outside of this jury room the questions that have been
21 asked of you or your answers until authorized by this
22 grand jury or the Court.

23 A violation of these instructions on your part
24 may be the basis for a charge against you of contempt of
25 court. This does not preclude you from discussing your
26 legal rights with your own attorney.

1 Mr. McGormley, what I have just said is a warning
2 not to discuss this case with anyone except the Court,
3 your lawyer, or the district attorney.

4 Do you have any questions?

5 THE WITNESS: I have no questions. Thank you.

6 MR. NOEL: In recess?

7 GRAND JURY FOREPERSON: Recess for 15 minutes.

8
9 [A recess was taken from 10:00 a.m. until 10:18 a.m.
10 whereupon, the grand jury reconvenes in courtroom 9.]

11
12 GRAND JURY FOREPERSON: All members of the grand jury
13 are present and ready to proceed.

14 Mr. McGormley, you're still under oath. Just a
15 reminder.

16 THE WITNESS: Yes, ma'am.

17 BY MR. NOEL:

18 Q. All right. When we took the break, we were
19 talking about wind loads jumpers -- the jumper wire
20 systems. Let's go on to slide number -- page number 21
21 and if you can start with that one, explaining it.

22 A. Sure. So we just got done saying how we
23 developed out of the data from the Jarbo wind -- weather
24 -- or the Jarbo Gap weather station, the wind -- the time
25 history of the winds. We then looked at various wind
26 speeds, and so listed are nine wind speeds that we

1 applied, so if I back up to the previous slide 20, this
2 one was for 37 miles an hour, we would have something
3 looking relatively similar for a -- for a -- to half mile
4 an hour wind or 17 mile an hour wind, 32, et cetera. So
5 each one of those functions, each one of those squiggly
6 lines representing the -- the winds would then apply to
7 our model as a time history, and then it was run. And
8 what we tracked were the placements and rotation of the --
9 the hooks at this point. That's what we were interested
10 in.

11 So here is an example shown on the -- the photo
12 on page 20 -- the -- the illustration on page 22 that
13 shows the application of the wind. So you can see the
14 blue and the red representing the way the wind was applied
15 to both the cable, and so the cable itself does -- it
16 attracts some wind, you can blow on the cable, and then
17 the insulator strings and then the connector type. And so
18 that wind was applied and then that variable time history
19 was run through the computer and that was one for one wind
20 speed and we did that nine times for the various nine wind
21 speeds for the previous slide.

22 Q. How did you pick the nine wind speeds?

23 A. So those nine wind speeds represent the -- the
24 ranges of winds that were measured -- and I will show an
25 example of how we get that data, but it was -- there's
26 ranges of wind that were collected at the Jarbo wind gap.

1 So when we do talk about a wind rose, it creates ranges of
2 wind and so these are the averages -- these nine values
3 are the averages of the ranges. So we will explain that,
4 if you want me to jump up to the --

5 Q. Yep.

6 A. -- spot. Do you want me to jump up to that?

7 Q. No, go ahead and finish up with 22.

8 A. Okay. So I explained why we picked these nine.
9 It'll be a little more obvious, but the idea is that these
10 nine represented the whole wind profile instead of doing
11 it at every increment, we have ranges that we use.

12 So when we do that, we start to get the behavior
13 of the model under that wind. So in this animation, which
14 is shown on the screen, you're going to see -- if I can
15 get it to work here.

16 Q. And we're on page 23, correct?

17 A. There we go. It's -- it's -- you can see it's
18 moving. It's not the screen shaking, but you can see here
19 the -- the winds going through. You can kind of see how
20 the variability of peaks are coming and pushing on the --
21 on the insulator and so that is that squiggly line that we
22 showed on the previous slide. That's basically -- if you
23 were to plot the squiggly lines with time as this thing is
24 moving along -- I will replay it again. The squiggly line
25 goes up and then you see the peak. That's the peak of one
26 of those values that represented that line. So you can

1 see the cables getting excited up there. It's shaking in
2 the wind. So what we're monitoring is at these locations
3 where the hook is.

4 Q. And we talk about "the squiggly line," you're
5 talking about the --

6 A. I'm talking about --

7 Q. -- the -- the wind blows on the jumper cables as
8 some squiggly line on the chart --

9 A. Yeah.

10 Q. -- on page 20?

11 A. I'm using squiggly line as a very non-technical
12 term. But it's the wind time history that was shown on
13 the date.

14 Q. All right. Before we move on, going back to 22,
15 and it says the blue arrows represent wind loads. I'm
16 trying to figure out the blue arrows. What you --

17 A. Yeah. That would be -- we're calling
18 these arrows -- this -- if you were to zoom in, there's
19 arrows that are pushing on the -- exciting the insulators
20 and there's allows exciting the -- the cables.

21 Q. Okay. So the blue arrows are they -- these dark
22 blue, almost looking like, columns?

23 A. Right.

24 Q. There's three of them on this diagram.

25 A. This is the insulator and then there's little
26 arrows that are represents the, kind of, a uniform load

1 that is applied there, and that load will change as you
2 follow the time history function. This is a snapshot, if
3 you want to say, in time of -- of one of these loads.

4 MS. DUPRE-TOKOS: So the things that look like
5 crosshatches are actually arrows?

6 THE WITNESS: Yeah. They're little tiny arrows that
7 represent the wind being applied to each one of those
8 insulator elements.

9 GRAND JUROR NUMBER FIFTEEN: Where are the arrows?
10 I'm sorry, I don't see them.

11 THE WITNESS: Yeah.

12 MS. DUPRE-TOKOS: Is it just on those stacks?

13 THE WITNESS: There's little -- there's little arrows
14 that are pointed here that represent by -- all these lines
15 is an arrow.

16 GRAND JUROR NUMBER FIFTEEN: Oh, thank you.

17 THE WITNESS: It's a little arrow that points.
18 Wherever you see blue lines, that's a little arrow pushing
19 against the red, which is the conductor wire.

20 GRAND JUROR NUMBER FOUR: Just barely see them.

21 THE WITNESS: Yeah. It just -- it says "arrows," but
22 it's -- it's really the -- kind of the -- however you want
23 to describe it.

24 MS. DUPRE-TOKOS: The horizontal line crosshatches
25 are all arrows.

26 THE WITNESS: The blue -- the blue elements of the --

1 blue elements generally are all of the wind pushing on the
2 various elements.

3 BY MR. NOEL:

4 Q. All right. So sorry. We ran into a snag. Do
5 you want to talk about the results?

6 A. Yeah. So that -- yeah, so that is -- that is --
7 those winds being applied against those little arrows are
8 pushing on every one of those cables or the conduit and
9 the -- and the insulator stacks.

10 So what are -- what do our results show? So, as
11 we said, we were interested in the rotation of the hook.
12 So much is that hook rotating because that's what's
13 relevant to the wear of the hook. And, as you can see in
14 the example shown on the 20 -- slide 25, for that 37 mile
15 an hour time history wind time history, this is -- so
16 there's 120 seconds, two minutes of time history, you can
17 see there was various winds that -- that -- the wind
18 speed, if you remember, was variable and you can see the
19 behavior of the rotation of the hook so this is rotation
20 and degrees of the hook as it's rotating back and forth;
21 and you can see, sometimes it's -- it's able to -- it
22 sticks because the wind isn't strong enough to -- to move
23 it and, at other times, it slips so it's able to move.
24 And so you see that behavior exhibited on the -- in the
25 graph there as it's subjected to the various winds through
26 the two minutes of time. So this is -- this is looking at

1 rotations that show, you know, zero rotation. It's
2 sitting there and when I -- you know, apply the -- oops,
3 when I click on this -- there it goes. When I click on it
4 now that -- that green or the hooks that starts to rotate,
5 right? We start to rotate like this on the hook, and so,
6 if I go back down here, this is -- we see it starts at
7 zero, no rotation, and then it goes up from the gust of
8 wind that hits it; and then depending on how that
9 magnitude of that wind, it may not overcome friction or it
10 does and then it rotates. It slips, as we say.

11 Q. All right. So first, before we go on, can you
12 describe for us what it means by displacement?

13 A. So displacement is the amount of movement that
14 you would get. So it's either -- it's sliding or it's
15 rotating, it can be doing both. The hook may -- may kind
16 of push over, because -- a little bit, and then it may
17 rotate.

18 Q. All right. And then the vertical lines on the --
19 on the chart would represent the slip rotation, correct?

20 A. No, it's the degree of rotation.

21 Q. The degree?

22 A. So how much the hook is relative to its axis is
23 rotating. So it's -- it's sitting in here going back and
24 forth like this. So this is -- you know there's three
25 degrees of rotation --

26 Q. Right.

1 A. -- at some point.

2 Q. Okay. But I am talking about the -- the angle.
3 So for instance, over here at the end where the red arrows
4 are, when it's going up or down, when the degree of
5 rotation is either going up or down in the vertical line
6 that would be the slip, correct?

7 A. What -- no. When it's going in the vertical
8 line, it's sticking.

9 Q. Okay.

10 A. And then it -- it -- so what -- what's happening
11 is the -- the rotation is kind of constant. So it's
12 sitting there, it's -- over time it stays, and then
13 changes. So these are wherever it's changing rotation.
14 It drops whenever the rotation stays constant.

15 So let's say the wind is blowing on it for a
16 couple of seconds, the rotation goes up to three degrees
17 and it hangs out there, and then it comes back. It may be
18 that it -- it can't come back because the wind is the same
19 or the -- or the friction is not allowing it to come back
20 or -- so it's -- and then when it wants to come back, you
21 know, it'll change to a new -- new position.

22 Q. All right.

23 A. So -- so what we're doing is we're watching that
24 look do this with the wind exposure and as the winds, you
25 know, pick up, then it may be -- does a little bit, and
26 then it picks up and then it does a little bit. And then

1 maybe it's not enough and then it just sits there and
2 doesn't overcome that friction.

3 Q. When you say it "does this," you know, just for
4 the record --

5 A. Yeah.

6 Q. -- you're using your hands --

7 A. To represent the hook.

8 Q. -- to represent the rotation of the hook?

9 A. Right.

10 Q. Okay. Go ahead.

11 A. And then that's either sticking or the fact that
12 it rotates a certain amount based on the magnitude of the
13 wind at that point. Again, it's time history, so it's
14 changing every second along the way.

15 So as we -- as we would anticipate the -- if I
16 plot on the -- on page 26 -- the baseline wind speed, the
17 higher the wind speeds that I'm applying in that time
18 history, the greater the -- the degree of rotation I get,
19 right? So total rotation during analysis. So this is
20 not -- this is like a cumulative degrees. Meaning, we're
21 adding up all of the degrees that happened, and you get a
22 lot more degrees that add up when you're at 40 miles an
23 hour winds than when you are at the two miles an hour
24 winds, which seems intuitive that the -- the stronger the
25 wind, the more you're going to get a rotation on that
26 hook. So, again, just kind of a verification that it all

1 makes sense, right? We want the -- we want the behavior
2 that we are modeling to represent what is in reality. If
3 we were seeing behaviors if we applied a little wind, we
4 get a big rotation and then we apply a stronger wind and
5 we don't get much, some would say we maybe don't have our
6 model correctly, mathematically right.

7 So this is kind of just showing that if I add up
8 all my -- my winds, the full hook rotation during a two
9 minute time history would add up to 50 degrees of
10 rotation. If I add up all the times that the wind is at
11 40 miles an hour, and add up whatever rotation that is,
12 we'll see that it produces a lot more rotation.

13 Q. All right. So what is the wind rose?

14 A. Yeah. So -- so this is information that we
15 collect -- we're able to obtain from the weather station,
16 and it's -- it's an interesting -- it's more climate --
17 climate than it is to the individual data points. But
18 what -- what it's saying is, this is a wind rose. We can
19 see it's shaped like a north south, like a -- like a
20 compass. And what you see then is percentages in -- of --
21 in the various concentric circles. So there's 7 percent
22 up to 42 percent in various -- in various ranges. Then up
23 at the upper right-hand corner of the -- of the weather
24 rose, you'll see miles per hour. So 1.3 miles to 5, 5 to
25 10, 10 to 15, 15 to 20, 20 to 25, 35 and 30, all the way
26 up to 40 and greater than 40. If you were to average

1 those, that's where you were get the nine values that we
2 tested so the average of 1.3 and 5 is 2.65. The average
3 of 10 and, you know, 15 is the 12.5. So that where we got
4 the nine values. That correlates the nine wind -- wind
5 speeds, if you want to say. We took the mean value, the
6 middle of those two values, so that's where I ended up
7 previously those couple of slides ago. That's where you
8 choose those winds. Then what -- then the weather -- or
9 the wind rose is showing is is that -- again,
10 percentage-wise, if I go and look at -- coming out of the
11 northeast, coming down canyon, you can see that 40 percent
12 of the time, this is the wind for a whole year. So they
13 take that data from all of the year and they produce
14 this -- this plot. They say 40 percent of the time, the
15 wind is coming down canyon, and you can see -- it's hard
16 to look -- see from that distance, but there's a --
17 there's a red section, a yellow, gold, green, dark green
18 and then a little blue. And that's the quantity of the --
19 or the amount of time that the wind -- for example, red --
20 is within 5 to 10 miles an hour. And you can see way out
21 here the -- that's the blue and that's the time it's
22 between 30 and 35. So there's a far greater percentage of
23 wind coming out of the northeast between 5 and 10 miles an
24 hour than it is there. So you add that all up, because
25 it's all coming from that direction. So that's where we
26 get the 40 -- approximately 40 percent just shy of the 42.

1 If you look at the next dominating wind is coming
2 out of up canyon, but it's much smaller and represents --
3 you know, like 1 -- 1.3 to 5 miles an hour is a bulk of
4 it, and a little bit is 5 to 10. So much smaller wind
5 speeds. And then we see the rest of the winds scattered
6 out of the wind -- weather station, but you can see what's
7 dominating is that northeast down canyon wind, and
8 40 percent of the winds that we're talking about come from
9 that the direction.

10 So when we do this, we're only really looking at
11 the 40 percent of winds. The rest of the time, it's --
12 either it's calm or it's coming out of a different
13 direction.

14 Q. All right. One basic question: You said this
15 was -- that the rose represents one year of winds. Down
16 in the bottom left of the chart, it says, "Start date:
17 November 1, 2009; end date: October 31, 2018," --

18 A. That's right.

19 Q. -- if you can briefly explain.

20 A. Yeah, I'm sorry. They can do -- they do annually
21 but this one happens to really represent the 10 years of
22 data that we were able to get from the whole system.

23 Q. Okay.

24 A. Good -- good -- good catch. Yeah, so this goes
25 from November 1, 2009, to October 31, 2018. So this is
26 saying for that period of time, the wind was coming down

1 canyon at 40 percent. We can look at these -- generally
2 they're every year. Thanks for the correction.

3 Q. All right. So let's move on to slide 28.

4 A. So then, as we -- as we said, we can -- we can
5 put these in ranges. So this is the nine ranges that we
6 use to apply those time histories of winds to our models.
7 So 2.65, 7, 12, 17 until we get the -- and as I said,
8 during the remaining time, it's either calm or the wind
9 was coming out of a different direction.

10 So this kind of shows you that -- you know, the
11 seven mile an hour range that includes the average of
12 seven miles an hour is the most predominant wind range
13 over the -- over the decade. Approximately, just about
14 17 percent of the wind is coming out of the northeast at
15 about seven miles an hour. And that there's very
16 isolated, but much less -- you know, somewhere less than
17 one percent of the time is the wind coming out in the
18 40 mile an hour greater range.

19 Q. Okay. You told us in the beginning that you used
20 a SAP2000 computing system. Were you able to plug all
21 these numbers into the SAP system and plot results?

22 A. Right. So we have applied the winds, the nine
23 wind time histories, we come up with a rotation of the
24 hook for that whole time history. We then add up all
25 those rotations. This -- this plot, the pie-chart plot
26 shows the -- similar to what that previous chart -- bar

1 chart showed, this is more of a flat chart. It says, out
2 of the winds -- as I said, we have different wind speeds
3 that -- that look at hook swing rotation. So if I back
4 up. Here, we have our greatest wind speeds over the last
5 ten years, the -- the average wind speeds. But then you
6 look at and say, well, what contributes to the hook --
7 most hook rotation? And you can see that the 17 miles an
8 hour had the most contribution of the total hook.

9 So we applied all these winds over these nine
10 time wind histories, we -- for every rotation of that
11 hook, we -- we added that up. We kept summing them all
12 up, kept collecting them, and now we have a total number
13 of rotations that happened for the life of that hook, and
14 we can test our -- attribute that rotation to certain wind
15 speeds. So 42 miles per hour was just -- there wasn't
16 much wind at 42 miles an hour, but it does cause some
17 amount of rotation. You can see the 17 miles an hour,
18 even though it's so small, the wind does get that going
19 because it's more -- much more frequent, you know,
20 approaching six percent of the time, than the 42 mile an
21 hour, which was less than -- less than one percent.

22 So the -- the idea is once we add that up over
23 the -- the time that we're looking at, it's equivalent in
24 a year of making 300 circles. So if added it up, it would
25 come up with 300 times 360 degrees of rotation. Just to
26 kind of give you a -- an idea that in a given year that

1 hook would have traveled around in a circle, if you gave
2 it a circle, 300 times. You know, if you just let it spin
3 around, it would do that; or if you added up that arc of
4 it rotating, it would add up to about a -- travel distance
5 of about 140 feet per year. So that hook, from all those
6 winds, even though there is small rotations to some larger
7 rotations -- but if you add that up over a year, it's
8 going to equivalently travel about 140 feet in a year.

9 Now, if we, again, look at that over the 99-year
10 history of this hook -- we believe that hook was original
11 to the instillation when it was put in. A hundred years
12 cause it was -- it's around 1919 and the hook failed in
13 2019, we -- we think that's close to -- or approximates --
14 if we run with our numbers, it approximates to about 2.6
15 miles of movement.

16 Now, as I said at the beginning, we're looking
17 for, kind of, are we in there? Is it plausible? So
18 there's a lot of variability that we talked about in our
19 modeling, right? We could have -- a conductor wire can be
20 slicker than we thought or it can be more flexible. That
21 will affect how much the -- everything is swinging.
22 The -- how much the -- the friction value, I said we're
23 using that .57. Well, what about that value is less or
24 more? And then also, as we talked about, the -- the 2D
25 versus the 3D, right? We have the 2D is what we were
26 using, but then we removed the one and allowed the one

1 behaving -- 3D as a -- as the upper bound. So all that
2 kind of gives you some variability that we have to
3 consider. We're -- we're -- as I said, the values that we
4 just gave with these previous charts are -- are values but
5 they're not the value, because they're -- we don't know
6 everything precisely at this point.

7 So if you look at the range, you're saying
8 somewhere between 1 and 11 miles is how much those -- that
9 hook has rotated over that 99-year history. So, you know,
10 if everything was very stiff, then it would rotate a lot
11 less. If it's a lot more flexible, then it could rotate a
12 lot more. So that's kind of the bounding, right? We want
13 to see, do we -- if -- somewhere between 1 and 11 miles
14 does that makes sense for what we see on our wear side.
15 If we wanted to pick a number, and we said, well, the 2.6
16 miles seems like the value that we -- we came up with if
17 we used all of our original values. If we start playing
18 around with the variability, then we end up with just 1 to
19 11 on the --

20 MS. DUPRE-TOKOS: And, Mr. McGormley, that seems like
21 a really wide range, 140 feet per year.

22 THE WITNESS: Right. So 140 feet is if I used 2.6
23 miles divide that by 100-year history of that, so
24 that's -- again, what we're doing is we're -- we show a
25 value.

26 MS DUPRE-TOKOS: Right.

1 THE WITNESS: If I play around with, as I said, the
2 stiffness, the -- the friction or the -- just the modeling
3 efforts, then you get variations of 1 to 11. So if you
4 had one mile, obviously you divide that over 100 years,
5 you're going to get varied -- you're not going to get a
6 140 feet of -- of wear, you're going to get something much
7 smaller. If I go 11 miles, you're going to get way
8 greater than, you know, approximately 1400 feet per year,
9 so -- so that's, again, what we want to make sure you
10 understand is that there's -- we're trying to see if the
11 value that we get for this wear sit within a plausible
12 engineering range. So this is the -- kind of the range we
13 defined based off our knowledge of the winds and our
14 knowledge of behavior of the hooks and our ability to
15 model that mathematically. See there's all these
16 mathematical equations that get used in this model, so
17 there -- there is some variability that we would expect.

18 So that seems like a lot, but we will show you,
19 as we look at wear, how that -- how that falls. But you
20 have to expect at this point that we're not going to be
21 able to precisely say it goes, you know, 1.375 miles,
22 which is not where we're at.

23 BY MR. NOEL:

24 Q. All right. So let's move on to the component
25 wear section for the presentation.

26 A. Right. So on page 32, there was a table provided

1 in the -- from the FBI in their lab report. They went
2 through and they tested various components and they tested
3 the hardness of those, and they presented them in a -- in
4 a couple of different values or charts. If you would --
5 if you look at hardness values, there is different ones
6 depending on how hardness values results are.

7 So for the material, the hook was -- was slightly
8 harder. They used the superficial Rockwell test, the HR
9 30 T test, and results to interpret their hardness
10 readings. Whereas for the angled material and the bracket
11 material, they used the Rockwell Hardness B. So you do
12 the test and you come up with a value based off of that
13 and that scale that they -- that you do the test with. So
14 that was what was presented. So the problem is we want to
15 -- we want to talk apples and apples. So there's a way to
16 convert those two different test results into a common
17 language.

18 For this case, we used -- there's other ones --
19 but we used, what we call, the Vickers hardness value. We
20 want to be able to use it in our wear equations so that's
21 what we converted it to. So that's what Vickers are, and
22 then we took Vickers -- and we will show in some other
23 values. We -- we took it times gravity, which is just a
24 units thing to change the units from kilograms per
25 millimeter squared to newtons per millimeter squared so,
26 again, so we can use it in the formulas. You know, you

1 don't have to memorize all the -- the numbers, but the
2 idea is that they're now better comparable to each other.
3 So we can look at -- for example, the color coding
4 represents the component. So the yellow represents the
5 failed hook, and then the two yellow items on the bottom,
6 item 10, represent the -- the angle and then the bracket
7 that it was in when it failed. And then hook number two
8 is -- is another hook, it's that -- the blue represents
9 that, and then hook -- item number one, which is another
10 hook in the green. So what you can see -- and it's
11 interesting, and we will show some photos that represent
12 that though -- is that there is definitely variability in
13 the hardness value. If you look at the failed hook, for
14 example, so it -- if I just look at the -- the Vickers
15 number -- the first column on the left. It has a -- a
16 value of 114 versus the angle on the bracket have higher
17 values, 134 and 152 respectively. So that would tell me
18 that the hook would be expected to wear more than the
19 angles. If for example, you look at item number two, its
20 hook is 222, and you look at the angles and the bracket
21 and you see that they are less so that would tell me that
22 took hook on -- for item number two would wear less. And
23 then if you look at hook number one and it's comparable
24 with the bracket being slightly -- slightly harder.

25 Q. So let me -- let me make sure we got this right
26 first. Going to the FBI report, the lab report, when

1 we're talking the -- the Rockwell HR 30 TW versus the HRB
2 test, that's where we're talking the apples to oranges in
3 comparison?

4 A. Correct. The value, for example, of 61 on the HR
5 30 T is not the same -- same scale, if you want to say, as
6 67.4 for item number 7. It's kind of like saying Celsius
7 and Fahrenheit. You know, 32 and 32 where the scales are
8 different. So those are two different scales, so we got
9 to get them on the same chart.

10 Q. Right. So the -- the chart to the right with the
11 Vickers numbers, you've applied the Vickers
12 calculations --

13 A. We did a conversion --

14 Q. Right.

15 A. -- using a known standard.

16 Q. To make it so it's apples versus apples now?

17 A. Correct.

18 Q. All right. So make sure I'm correct in
19 understanding what you're saying. The -- the higher the
20 number, the harder the metal is, correct?

21 A. That is correct.

22 Q. All right. And then what -- I know when you said
23 you applied the Vickers plus gravity to get a neutron?

24 A. A newton.

25 Q. Newton. Okay.

26 A. A newton is a measure of -- these are in SI

1 units. The idea is that I need to have -- when I run the
2 equations for wear, they have to have all your units. You
3 can't have feet and meters and everything. You have to
4 have all your units in the same equation, and so we're --
5 just converted that over and, as I show in the next slide,
6 the value that I will be showing is the value on the
7 right, just because that's what we use -- that's the value
8 we used in our calculations.

9 Q. Right. And as we're going through the two, the
10 Vickers and the Vickers plus gravity, we're comparing up
11 and down the chart, not side to side, correct?

12 A. Correct. The values are relative to each other
13 vertically.

14 Q. Right. So for instance --

15 A. 222 --

16 Q. The yellow 114, down here below, yellow 134, and
17 yellow 152?

18 A. Right. You can compare any value.

19 Q. Right.

20 A. You can say hook number two versus the failed
21 hook, there's a significant difference between those in
22 terms of hardness. The -- the color coding just ties the
23 components together --

24 Q. Right.

25 A. -- just that you know which -- which sample the
26 FBI had that relates to itself in the field, which one was

1 actually matched. That's what we're -- we will talk -- so
2 the next slide, for example, shows the -- this would be
3 the number one that we just had up on the table. That's a
4 hook. And that's for a transposition towers 24/199. And,
5 again, I presented -- these are the values we included.
6 So these would be the Vickers times gravity value that I
7 just showed on a previous table. 167, for example, for
8 the -- for the hook, and that's the 167.

9 So that's the -- that the angle with the bracket,
10 the -- the supplemental repair bracket, and then that's
11 the hook, and you can see there's substantial amount of
12 wear in that hook, right? And if I go to the next slide,
13 you can look at the holes and how they're worn. So this
14 is the angle hole and the supplement of that with the
15 bracket, which is the bracket shown right here. The
16 bolted on bracket and that would be the bolted on bracket.
17 So what you can tell is, one, there's a substantial amount
18 of wear that's occurred and you can see where the
19 galvanizing has worn off the lower part of the hole, and
20 then more so you can see it very active. So this hole
21 was -- was -- had worked its way through the hook, and
22 then it definitely appears that that same hook was put on
23 the hole and allowed to -- to wear or continue to wear.
24 And you can see to the level, at which time, it was pulled
25 off. You can see all the area of galvanizing is due to --
26 due to the -- so the hook is essentially going back and

1 forth of these photos -- right to left of the photo,
2 rotating right to left for the last, you know, 100 years.

3 Q. So let me ask you one thing on here. Looking at
4 the numbers, the bracket hole on the left, the Vickers
5 plus gravity shows 1349.

6 A. Huh-uh.

7 Q. And the original hole on the arm itself appears,
8 to me, to be significantly lower at 1175.

9 A. Right.

10 Q. Is that a significant figure?

11 A. Well, so what it says is that, initially, the
12 hook and the -- the angle, which is the photo on the
13 right, were approximately wearing about at the same rate
14 so we could say we have comparable hardnesses, and then
15 when they switched over, the hook continued to wear, but
16 at a slightly slower rate because this bracket was a
17 little bit harder. And we -- and we see that even more
18 so, if you go to the next hook.

19 So this is hook number two, and you can see that
20 it has substantially less wear that hook number one did,
21 And you can see, as we talked about, that has the value of
22 about 21, 2200 newton per millimeter squared and a much
23 softer angle and -- and bracket. So if you go to go look
24 at those, you can see at the time, the angle is almost
25 worn all the way through. So in this case, had they had
26 allowed that to stay in the same place, you probably

1 wouldn't have had a hook failure, you would have had an
2 angle failure and then the hook would have fallen out of
3 the hole. In this -- in the bracket hole, you can see how
4 much it started to wear, but it's wearing faster than --
5 than the hook, because the hook is significantly harder.
6 So this demonstrate that the hardness of the material
7 affects the wear, and that material that is different in
8 hardness will wear differently than a more comparable will
9 wear in a similar manner given the load that's applied to
10 it. You need a load on it. This is -- this is the 225
11 pounds that we say is hanging from it. If you didn't have
12 any load, you wouldn't be wearing anything. That's the
13 pressure you apply when you're sanding the wood, you got
14 to apply some pressure.

15 So the then the last series of these slides shows
16 the actual failed end of the hook. And so at the far left
17 picture, the upper portion is the remaining amount of
18 material that was left at the time the hook failed. So
19 it's approximately a little more than an eighth of an
20 inch, 3/16ths of an inch material across. About a one --
21 one-inch tall cross section, so not much material left.
22 If you can see that its hardness, out of all the values,
23 the hook was the least hard. And if we were to look at
24 the holes you can see -- again, so it wore but didn't wear
25 as severe as the one on two because, remember hook two was
26 a very hard hook compared to the one in -- in -- this is

1 five, the failed hook. You can see that's a relative
2 distance. But you can see, again, particularly on the --
3 on the bracket, how much is worn. So this hook has been
4 sitting there for quite a while. It's worn out the hole,
5 but it also shows that the hook depth has been eaten away
6 because it starts to rub the paint off the -- or the
7 galvanize off the -- the bracket metal. So it had to be
8 in its slot, not just sitting on the edge of the hole.

9 So let's just talk a little briefly about --
10 about wear. So there's a lot of different ways wear can
11 occur. And less than three of them are applicable to --
12 to potentially this situation. There's other ones such as
13 chemical wear and corrosion wear. We don't see evidence
14 of chemical interaction here and we don't see any evidence
15 of corrosion. We know there's a little light rust. That
16 may be something else other than just corrosion.

17 So adhesive wear, represented by B, is if I were
18 to take two surfaces -- and we talked about this at the
19 beginning of my testimony today -- we take those two
20 surfaces and we squish them together, then as you slide --
21 try to slide one over the other one, depending on the
22 various hardnesses -- so let's say I have a very soft
23 metal and a very hard metal, if I put them together, I am
24 going to -- I am going to strip some of that soft metal
25 off the piece, kind of smear it to the other one. And so
26 that is kind of the behavior of where you actually stick

1 one metal to the other metal. If I get to the abrasion
2 wear, that's my -- kind of my sandpaper wear. That's
3 where I put two things and I slide one hard surface over
4 the other one and, in doing so, it's wearing away the
5 other surface, the soft -- the softer surface.

6 And lastly is fretting. It's kind of a
7 combination. But what it is, it's -- again, where two
8 surfaces are tightly held together, there's -- there's
9 movement in them and what you can get is you can get same
10 as abrasion but more so in fretting, you get the little
11 particles that break off the surfaces, and we're talking
12 now -- kind of this is at the microscopic level of the
13 seal. And those particles become, like, ball bearings or,
14 in this case, like shards of glass that are between your
15 two services and they cause it to wear away.

16 So there's a couple examples of this. Now, the
17 PG&E had a report that was put out in '18 that looked at
18 some wear of some holes, and they had some microscopic and
19 SEM-type work that was done on their wear of their holes,
20 so they didn't have -- this wasn't about the hooks, it was
21 more about the wear of holes comparable to these. And
22 they looked at it, and they said -- in all of the
23 evidence, they started to see pieces of metal being
24 stripped off, or -- or kind of adhered to one another. So
25 they -- they believe the abrasion was adhesive wear in
26 their holes, and so that seems consistent with what --

1 what we've seen done, but there's also a potential of
2 abrasion and fretting is -- is how -- as a wear method.

3 So, again, the D would be the fretting wear. You
4 kind of have a particle in there that is kind of wearing
5 away potentially both surfaces especially if they're
6 comparable in hardness. C is where you have -- you have
7 something sharp that maybe, again, like, the -- the piece
8 of garnet on sandpaper that is plowing away the softer
9 material; and then the other one is where you have
10 adhesive where you actually to -- in tight contact and
11 potentially some of that material is able to transfer from
12 one kind of to the other and strip it away, and then once
13 it gets passed, you know that piece falls out, if you want
14 to say and it keeps going.

15 So there's a lot of study evidence and then the
16 effects of -- of lubrication on this. So relativity
17 straight forward equation. That's the --

18 Q. Easy for you to say.

19 A. This is multiplication. So there's -- F
20 represents the -- the normal force, how hard. So in this
21 case, it's -- 225 pounds is more force. L is -- is my
22 travel distance. So in the case we're using is the -- how
23 long did this go, and what we're saying is over the life
24 of this was 2.6 miles so we put that in there. Three is a
25 -- is a factor associated with the wear, and the H is
26 hardness. So this is where hardness played a role. In

1 this case, we're using the soft wear of the materials
2 because that would be the material that wears the
3 quickest.

4 MS. DUPRE-TOKOS: And I am going to jump in real
5 quick. On the 2.6 miles, you converted it to millimeters?

6 THE WITNESS: Well, I'll -- I'll -- yes.

7 MS. DUPRE-TOKOS: Okay.

8 THE WITNESS: You have to convert it to millimeters
9 exactly.

10 And then K is what we call the wear coefficient,
11 and that's a variable. And that really depends on what --
12 on a whole bunch of things. So in this case, for
13 simplicity, I've shown the 225 pounds, the 2.6 miles, and
14 the -- my Vickers multiplied by gravity that I use. So as
15 I put in that small. All those have to get the units
16 right. So you just can't do that multiplication and get a
17 result, you have to convert everything but that the
18 variables that we used. So we put those in.

19 So here is various K values that you can use. So
20 there's, again, great variability in the -- to the value
21 you can use. You see, 10 to the minus 3. So that's -- if
22 take a -- a decimal point that is 000 -- so that's a small
23 value. 10 to the minus 3 is a small value. And you see
24 10 to the minus 2 is one of the values so that's only .00,
25 so you see right there, your factor of 10 different, and
26 then you can go as much as 10 to the minus 5. So there's

1 a big range, again, depending on what K value you select.
2 So 10 to the minus 3, if we use an adhesive-type failure,
3 which, again, we -- we think was the appropriate means, at
4 least the -- the other report had looked at it. And
5 unlubricated, we don't -- we weren't lubricating the
6 joint, we have something about 5 times 10 to the minus 3.
7 But we can also look it as poor lubrication, meaning that
8 it occasionally gets rained on so that helps. So it means
9 during those winds, there's some rain so that helps
10 lubricate a little bit. Then we have abrasive where we
11 have two bodies pushing against each other in a sandpaper
12 action. You could see that minus two would mean that it's
13 probably much more aggressive type removal because it's a
14 smaller decimal number.

15 But three body could be another method and so in
16 between those is the little particles of -- let's say, of
17 broken off, so those help wear stuff. And then there's
18 high and low lubrication, meaning there's -- it's high or
19 low abrasiveness, I should say. So you can go from 10 to
20 minus 3 to 8 times 10 to the minus 5. So it's a factor of
21 100 different. So there's a lot of variability with it.
22 And then the last one is potentially -- is an example of
23 fretting unlubricated, one times 10 to the minus 4.

24 So if I take those -- or use that equation,
25 convert it all to the right units and I use the various --
26 various Ks that I have listed here, then I end up in a --

1 V is a volume of material that is removed from wear. So I
2 go from -- anywhere from .006 cubic inches to .76 cubic
3 inches of material. And kind of the range that using
4 these various Ks tell us.

5 So I said, well, what don't I actually lose? So
6 looking at this, again, with some amount of not complete
7 certainly. We don't know exactly where it -- we think we
8 know where it broke off but how much was -- the broke --
9 somewhere -- we say we're somewhere between a volume of
10 .236 to .322 cubic inches of material that was removed
11 before it failed.

12 BY MR. NOEL:

13 Q. Let me stop you right there. Can you explain to
14 us what is cubic inches of material?

15 A. Sure. So what you see there is the cross section
16 that if you looked at the other hooks that were -- had not
17 failed, there was a slot, right? And so we ground that
18 slot and so that material has been removed. It's no
19 longer part -- it's not in the -- not the hook anymore.
20 So there's a thickness, and then there's a cross section
21 of removal so all of this area right here times a
22 thickness of a slot gives me a volume of steel that was
23 removed through wear over time. And what that suggests,
24 again, we're somewhere in the .2 to .3 range of what we
25 think was removed on that hook that failed.

26 So I go down to here and you can see, again, what

1 I just repeated from the previous side, and depending on
2 the K value you select, you're somewhere from .006 to .76,
3 so our number seems to fall within that range.

4 If we look at and we use -- if I go to next
5 equation, if I use the 2.6 miles and I use it -- use it as
6 unlubricated, which adds that value of 5 times 10 to the
7 minus 3, I'm about .38 cubic inches. Right in the
8 vicinity of where we are when we know how much is lost,
9 right? If I play around with my distance, right, my one
10 mile because -- remember we had variability on our travel
11 length depending on -- we played around with all of those
12 variables. We had 1 mile to 11 miles. If I look at it as
13 1 mile, then I'm about 0.15 inches of material that --
14 cubic inches that has been removed, and if I go to
15 11 miles, then I am at, like, 1.61.

16 So, again, does my actual volume that was removed
17 fall between those? It looks like it does. So that,
18 again, tells me that this is very plausible that over a
19 hundred years, this material was removed through the winds
20 that were present from the values we get out of the Jarbo
21 Gap and show that this was very consistent with that.

22 So out of engineering -- using all of our
23 engineering and mathematics that I walked you through
24 today, it shows where -- where -- there's a -- there is a
25 definite plausibility that this material was a result of
26 long-term wear in a hundred years.

1 So, briefly, we just look at the hook failure
2 because does it make sense that what we're looking at was
3 the hook failed as a result of this? So we know the hook
4 failed, but if it failed for some other reason. So one of
5 the ways we look at it is, we look at our 225 pound
6 demand, we look at the slot, and that can be a minimum --
7 because what we -- we don't have the value of the slot
8 anymore, because our hook -- we only had one piece and we
9 only have the one surface, right, but we can look at the
10 measurements taken by the FBI and all of those other hooks
11 on the bracket, and you can see there's a relatively
12 consistent width. And so there's a minimum width of about
13 .4, and a maximum width -- oops, that should say
14 "maximum," on the width maximum on the seconds bullet from
15 the bottom there. That's .552.

16 Q. Right here?

17 A. That should say maximum, yeah.

18 Q. All right.

19 A. You're just waiting for me to have something to
20 change. So as you can see, there's a little difference in
21 width, so if I -- again, using variability, we consider
22 that. So when I say "moment," so there's a couple of
23 different ways material can fail or be loaded. It can be
24 pulled, a tension. Pulling something apart and tearing it
25 apart. You can fail at a compression. You can push on it
26 and weed it together. You can take two elements and you

1 can sheer them. You can bring one relative to the other,
2 slide it against the other. And the other one is -- is
3 moment or bending, so you assume you just break something
4 like a -- take a board and just snap it. You're not
5 pulling the board apart, you're -- you're bending the
6 board so the top of the board gets pushed, tension, and
7 then the bottom of the board gets pushed, depression, and
8 it breaks. So what we're saying is that the -- the demand
9 that's in the units of inch pounds, so it's -- it's a
10 force that is applied from the distance, so that's why you
11 get units of that. What we're saying is that the -- the
12 moment of bend that hook, the last -- that last little
13 remaining eighth inch or so of ligament is 46-inch pounds.
14 If you use the minimum width of that slot, because we're
15 essentially going into the slot, picking the middle of the
16 slot, and saying I am going to bend that piece of metal
17 that is left and see if it can withhold that, or I look at
18 62. So those are kind of the variables.

19 If I go over my hook, we believe, based off of
20 its hardness values, we can again go to a conversion table
21 and say that's estimated to be somewhere around
22 56,000 pounds in -- in tension. And so that should be
23 pounds per square inch, PSI. So plastic moment capacity
24 is -- is what's the capacity if it has 56,000 tense -- or
25 strength to resist that bending. And that's 58.7-inch
26 pounds. And if you look at the sheering, which is -- if I

1 wanted to sheer that piece off, you can see that's
2 significantly greater. So we think it's failed in bending
3 and, again, from the numbers, we're right in the middle
4 of, you know, 46 to 62 or 58. So everything suggests that
5 that hook wore away over the last hundred years until
6 there was a little bit of material left, and that material
7 at that day was not strong enough to handle the 225 pounds
8 and just bent, and then fractured and fell off and -- and
9 fell down.

10 With that, I'm done. That presents the --
11 presents our findings.

12 Q. All right. So to summarize my understanding to
13 make sure we -- we understand this.

14 At this point, we can't say how long that hook
15 took to wear to failure, but you can say it's plausible
16 that it was almost a hundred years?

17 A. Yeah. The wear and the amount of wear -- the
18 wear material was consistent with a hundred years of
19 rotation due to the winds up there.

20 MR. NOEL: Do you have anything?

21 MS. DUPRE-TOKOS: I do not.

22 MR. NOEL: Jurors?

23 MS. DUPRE-TOKOS: Wow.

24 MR. NOEL: Y'all understand this? Y'all going to be
25 going home this weekend and figuring out the coefficient
26 of friction on --

1 GRAND JUROR NUMBER TWO: Doing math equations.

2 MR. NOEL: All right. Doesn't look like we have any
3 more questions.

4 MS. DUPRE-TOKOS: You did a good job.

5 MR. NOEL: Nice to meet you, McGormley.

6 THE WITNESS: So I'm done?

7 MR. NOEL: Madam foreperson needs to give you to
8 admonition again.

9 GRAND JURY FOREPERSON: Mr. McGormley, you are
10 admonished not to discuss or disclose at any time outside
11 of this jury room the questions that have been asked of
12 you or your answers until authorized by this grand jury or
13 the Court.

14 A violation of these instructions on your part
15 may be the basis for a charge against you of contempt of
16 court. This does not preclude you from discussing your
17 legal rights with your own attorney.

18 Mr. McGormley, what I have just said is a warning
19 not to discuss this case with anyone except the Court,
20 your lawyer, or the district attorney.

21 Do you have any questions?

22 THE WITNESS: I do not.

23 GRAND JURY FOREPERSON: Thank you for your time
24 today.

25

26 [Proceedings omitted.]

1 [Recess was taken from 11:09 a.m. until 11:25 a.m.
2 whereupon the grand jury reconvenes in courtroom 9.]
3

4 GRAND JURY FOREPERSON: All members of the grand jury
5 are present, ready to proceed, and you can bring the
6 witness in.

7 [Witness enters the courtroom.]

8 GRAND JURY FOREPERSON: Mr. Kuyper, before you have a
9 seat, please raise your right hand to be sworn.

10 Do you solemnly swear that the evidence you shall
11 give in this matter pending before the grand jury shall be
12 the truth, the whole truth and nothing but the truth so
13 help you God?

14 THE WITNESS: Yes, I do.

15 GRAND JURY FOREPERSON: Thank you. Have a seat,
16 please.
17

18 **EXAMINATION**

19 BY MR. NOEL:

20 Q. Mr. Kuyper, for the record, could you please
21 state your full name, spelling your last name.

22 A. My name is Kris Kuyper. Last name is spelled
23 K-U-Y-P-E-R.

24 Q. What is your profession, Mr. Kuyper?

25 A. I'm a meteorologist. A broadcast meteorologist.

26 Q. What is a meteorologist?

1 A. Meteorologist is someone who studies, talks about
2 weather, meteorology. What's going to happen tomorrow.
3 Is it going to rain? Is it going to be snowy? Is it
4 going to be windy?

5 Q. Do you have an educational background that
6 qualifies you as a meteorologist?

7 A. I do. I went to UC Davis. My major is
8 atmospheric science, which is meteorology plus all the
9 calculus so extra fun. Minor area in climates as well.

10 Q. What does it mean to have a minor in climate?

11 A. It's not an official -- it was not an official
12 minor, but it was -- you had to pick a -- an area that you
13 had to focus on in addition to -- to meteorology. Some
14 people -- some folks chose geography, some other folks
15 chose a few other things. I chose climate, which meant I
16 took a couple extra classes in climate and studied that.

17 Q. All right. And I should have, before we even
18 started -- you have in front of you, a thumb drive marked
19 as Exhibit Number 1353.

20 Do you recognize that?

21 A. I do.

22 [Exhibit No. 1353 was identified.]

23 BY MR. NOEL:

24 Q. What is on that thumb drive marked as 1353?

25 A. A little presentation I am going to show
26 everybody about winds and fuels that will be entertaining.

1 Q. All right. So we now have the presentation up
2 here. First off, we have your resume. If you can walk us
3 through your resume?

4 A. Sure. My latest and greatest job was at Action
5 News Now, which is in Chico, for 12 years. No longer with
6 them, but it was -- for the 12 years, I was with them, and
7 we had a 4:00 show, a 5:00 show, both shows for an hour.
8 We had a 6:00 show for a half hour. We had a 10:00 show.
9 We had an 11:00 show. It's a lot of shows Monday through
10 Friday.

11 There for 12 years. And what I would do is -- my
12 day consisted of me going in in the afternoon, about 2:30
13 or 3:00, look at all the computer models. I would look at
14 the all the information, the data out there. Is it windy
15 in Redding? Is it hot in Redding? Is it raining in
16 Chico? Is it -- what's going on in Marysville? Is it
17 cloudy or foggy there and whatnot. I look at all that,
18 then I look at these commuter models, a bunch of them, and
19 ascertain what's going on, look at what's going to happen
20 in the future, make my forecasts, and then after that was
21 done, make my graphics, like a seven-day forecast graphic,
22 and then at 4:00, it would be -- try to keep y'all
23 entertained with the boring meteorology. Try to make it a
24 little bit fun.

25 So that was here in Chico. Before that, I was in
26 beautiful Anchorage, Alaska doing the same thing. There

1 was stuff to talk about up there, it's not just cold. It
2 was fun at times as well.

3 Before that, I was here in Chico again. Before
4 12 and 24 merged together, it was just 24, and I was the
5 evening weather guy for Channel 24 for three years.

6 Before that, I was in Bakersfield, and before
7 that, I was at Channel 7 in Redding doing the morning
8 shows. Although, the morning gig requires you being there
9 about 3:30 in the morning. So that was -- that was not
10 tremendous.

11 And my first job on the TV out of college was in
12 Grand Junction, Colorado. Beautiful area.

13 Q. What does it mean to be a chief meteorologist?

14 A. Chief meteorologist is just usually the evening
15 person. So if -- if -- if, say, the morning person has a
16 question about the forecast or something like that, he
17 will usually run it -- or her will usually run it by me to
18 get my thoughts and get my opinions on it in that case, or
19 the weekend person may do the same thing.

20 Q. And, finally, down at the bottom, it talks about
21 SEALS. What does it mean to have a -- be a certified
22 broadcast meteorologist?

23 A. So those are to separate entities. The National
24 Weather Association is -- is a fine entity where you --
25 you have to pass a written exam so you understand
26 meteorology, and then you have to send them three shows of

1 consecutive nights, and they have other meteorologists
2 watch them, grade them, are you talking about meteorology
3 or are you just talking about your dog walking up to the
4 end of the street, or are you talking about true
5 meteorology with an understanding of what is going on?
6 They grade it and, if they like it, then you earn the
7 SEAL.

8 The American Meteorologic -- The American
9 Meteorological Society, their certified broadcasting
10 meteorologist program is more stringent. So their test is
11 really in the atmospheric sciences and the physics of it,
12 so you really have to understand that one, and then they
13 also do a grading process where you submit shows from
14 three consecutive nights and they evaluate them and see if
15 you were meeting their higher standard of understanding
16 meteorology.

17 Q. So it looks like in your history, you have spent
18 about, what, 18 years as a meteorologist here in the north
19 valley, correct?

20 A. Yes, sir.

21 Q. And you were the chief meteorologist for the --
22 the 12 and 24 on November 8, 2018, and the next couple of
23 weeks behind that, correct?

24 A. Absolutely.

25 Q. And tell us about your experience with the Camp
26 fire?

1 A. We had been having gusty winds through that fall.
2 This wasn't the only night that it was windy. It had --
3 it had been windy a few times in October. It had been
4 windy November 7th. It was windy -- November 8th it was
5 windy, obviously. We had a good handle on the winds. We
6 forecasted them, I thought, rather accurately. And so it
7 wasn't a -- a big surprise that they were happening. They
8 were in the forecast.

9 My personal recollection was I dropped my son off
10 at Marsh Junior High School on that morning -- 8:00 in the
11 morning, saw the big mushroom cloud over Paradise, said
12 that is not good, and I knew not to go make any plans, I
13 knew not to go to the gym or anything like that, and sure
14 enough about 10:30 or so, got the call from my boss, "Get
15 in here now," and I was in there now. And for the next
16 week, eight, nine days, we were -- on Action News Now, we
17 were on air 24 hours a day. We knew -- we canceled
18 regular programing, went to straight news, and since it
19 was, at that time, we were down a meteorologist in the
20 department, it was just Cort Klopping and myself, and so I
21 handled the noon to midnight shift and Cort handled the
22 midnight to noon shift. So we ran 12-hour shifts there
23 for those eight or nine days or whatever it was, and the
24 news would take up a good chunk of the time, but we would
25 get -- oh, in the course of an hour, we would get maybe
26 four break-ins in the news, and we would get anywhere from

1 5 to 10 minutes to do our little breakdown of what's going
2 on, weather-wise, meteorologically with regards to the
3 fire.

4 Q. Now, I understand you're kind of the -- the
5 person that coined the term, "Jarbo Gap Winds" or the
6 Jarbo Winds; is that the correct?

7 A. Yeah, yeah. I noticed back in my first stint
8 there at Action News Now, back in 2003, there were really
9 -- not very many weather stations, anemometers out in that
10 area. It's a very data sparse area. They put one up in
11 2003, I came back to the station in about 2007, and I
12 noticed that little station there and I noticed Paradise
13 wouldn't report much wind. Magalia wouldn't have much
14 wind. Oroville wasn't reporting much wind. Whoa, Jarbo
15 Gap, 45 mile an hour gust last night. Where did that come
16 from? I thought it was just a bad instrument. I -- I
17 attributed it to that because nobody else in the area was
18 reported anything, and then I started getting a few calls.
19 "Boy, it was windy last night at my place," and I put
20 those two together and, from that, I kind of -- I pieced
21 out what was going on there basically. Because those
22 winds, they only impact the Feather River Canyon. They
23 don't blow out over the Feather River Canyon. They're
24 like -- they're like a river in a channel. They stay in
25 the channel. They don't flow out of the channel for the
26 most part. And so people in Paradise that would be

1 impacted by them would be the folks that lived on Pence
2 Road, right up against the Feather River Canyon, Feather
3 River Hospital, that area. You get more than a block away
4 from Pence Road, the winds really hardly did anything. So
5 they didn't impact a tremendous amount of people, so they
6 kind of stayed under the radar there a little bit, no pun
7 intended for a while but that Jarbo Gap weather station
8 really helps pinpoint exactly what was going on in the
9 Feather River Canyon.

10 Q. Sounds like you started studying the Feather
11 River Canyon, the Jarbo winds well before the Camp fire?

12 A. Well before, yes. And I started including them
13 on my forecast. I remember a few people -- many people
14 didn't quite understand it. I guess it was my fault for
15 not explaining it properly. When I would go into Costco
16 on Saturdays, "Hey, Weather Guy, how about those Jarbo Gap
17 winds? It wasn't windy at all at my house last night,
18 Kris." The Chico stuff, you know. And Feather River
19 Canyon have a 50 mile an hour gust, people are kind of,
20 like, well, the Jarbo Gap is -- you know, is not really a
21 thing. But it was a thing. And the people who lived
22 there on Pence Road or other areas around, like, Oroville
23 impacted by the winds, they -- they would absolutely say,
24 hey, you know, right on, so.

25 Q. So we're, again, talking about the Feather River
26 Canyon winds and fuels. And how about start with -- just

1 give us a basic explanation of how and why the Feather
2 River Canyon is windier than anywhere else in the area?

3 A. The basic breakdown is that you have higher
4 pressure over Nevada, Great Basin, in that area and lower
5 pressure over California or the Pacific Ocean. Sometimes
6 Mother Nature doesn't like that difference. She wants to
7 push the air from high to low. Pretty simple. You have
8 the Sierra Nevada there. That's a big mountain range.
9 It's a big brick wall that doesn't want to let that
10 happen. So that air is looking for any little nook,
11 cranny, gap, pass into the Sierra Nevada where it can get
12 from Nevada to the ocean.

13 Feather River Canyon is a beautiful gap into the
14 Sierra Nevada. It's a nice long straight and narrow deep
15 canyon. There are other canyons in the Sierra Nevada,
16 absolutely. But some of them wiggle a little bit too
17 much. Some of them are not broad enough. Some of them do
18 not allow enough air on in. Feather River Canyon, nice
19 straight shot to get that all that wind further along.
20 Think of a river. As it goes from a nice broad stretch,
21 and then it gets funneled into a -- a gap, funneled into a
22 channel or so, the river gets turbulent. It's choppy.
23 It's really moving. Same thing with the air. We're
24 talking fluid dynamics here.

25 Think of the air as a fluid and the exact same
26 principles go on, it's getting channeled in the Feather

1 River Canyon, it accelerates and creates those gusty
2 winds.

3 Q. All right. Let's move on to the next slide. How
4 do our northeast -- north northeast winds develop? If you
5 can explain what we're looking at here and how this
6 occurs?

7 A. Sure. This is -- we will talk about it in three
8 different parts here. This is a surface pressure map of
9 -- a computer model. The star here the Butte County.
10 This is California right here. There's Oregon. There's
11 Washington. There's Nevada.

12 And on day one of the process, this is when we
13 have a storm moving into the Pacific Northwest. So we
14 have rain going on here. These are lines of equal
15 pressure, the black lines here. So they're called
16 isobars. And so the wind is generally going to push from
17 higher pressure to lower pressure. It's generally going
18 to push perpendicular, usually. Not always, but usually
19 perpendicular to these lines. This is a surface pressure
20 map. This is not upper level. This is right down here
21 where we are living and breathing, all that kind of good
22 stuff.

23 So this is -- this is day one. So right now in
24 Chico, if I am looking at this, I see a light south
25 breeze, nothing too dramatic. We got some rain in the
26 Pacific Northwest, it's probably cloudy and a little bit

1 drizzly around here, won't end up with too much with this.
2 This is day one of the process.

3 Next.

4 Q. Ready to go to the next one?

5 A. This is day two of the process, and the front has
6 moved inland. It's long gone. We're back to sunshine
7 here in California. There we are. Surface high pressure,
8 many times, follows a storm system in the Pacific
9 Northwest. It'll also build in the Pacific Northwest. So
10 we have more air up here than we do down here, and Mother
11 Nature doesn't like that. So she's going to push that
12 extra air up here down to Southern California. These
13 lines of equal pressure, they -- they tell me that. And
14 just looking at that, off the top of my head, that looks
15 like a 30 to 40 mile an hour north wind in the Sacramento
16 valley. The Jarbo Gap -- look at this. This won't do
17 much for Jarbo Gap. But this is just kind of step two in
18 the process. That happens rather frequently. I will show
19 you later on.

20 So this is the north wind blowing down in the
21 valley here. These north winds happen during the day,
22 typically, for us in the Sacramento valley.

23 Q. All right. Next slide?

24 A. This is some -- some guy on TV talking about
25 pretty much the same thing.

26 THE COURT REPORTER: Do you guys want me to write

1 that?

2 MS. DUPRE-TOKOS: No, you can...

3 THE COURT REPORTER: Okay.

4 MR. NOEL: Yeah, you don't have to.

5 Okay. Let's start this all over because we had
6 the volume turned off.

7 MS. DUPRE-TOKOS: If you can turn it up, it would be
8 helpful.

9 GRAND JURY FOREPERSON: Yeah.

10 [Whereupon, a video was played in the open courtroom for
11 the grand jury.]

12 BY MR. NOEL:

13 Q. All right. Says date on that was
14 September 23, 2019; is that correct?

15 A. Yes, sir.

16 Q. All right. So an explanation of what we've been
17 talking about.

18 All right. Now, let's go onto the --

19 MS. DUPRE-TOKOS: Can I ask a question?

20 MR. NOEL: Sure.

21 THE WITNESS: Yeah.

22 MS. DUPRE-TOKOS: So looking at the first two slides
23 --

24 THE WITNESS: Uh-huh.

25 MS. DUPRE-TOKOS: So in the first one, how do our
26 north northeast winds develop, the isobars go basically

1 north south.

2 THE WITNESS: Yeah.

3 MS. DUPRE-TOKOS: And then after the front passes, it
4 seems like they're going east west?

5 THE WITNESS: Yes.

6 MS. DUPRE-TOKOS: What does that signify?

7 THE WITNESS: That's telling me that surface high
8 pressure is now in Oregon and, therefore, we're going to
9 have a healthy north wind in the Sacramento valley.

10 MS. DUPRE-TOKOS: So when they go sideways that's an
11 indicator of coming wind?

12 A. When they're tight packed. When they're -- see,
13 like, right here. Boom, boom, boom. It's tightly packed.
14 That's going to be a stronger wind. So here, here, to
15 here, that's not a whole lot going on right here, so it's
16 going to be lighter winds in that region.

17 Generally, they go perpendicular to the other
18 line but, again, this is at the surface. So we have a lot
19 of mountains here in California and the west, so the
20 mountains play a big role in the wind direction.

21 MS. DUPRE-TOKOS: So -- but do the -- the isobars,
22 are they indicative of the direction of the wind? Like,
23 Marc, go back.

24 THE WITNESS: They will -- so the winds will -- so if
25 we have higher pressure here and lower pressure here,
26 the-- the air is going to typically -- at the surface,

1 it's going to typically go perpendicular to the direction.

2 MS. DUPRE-TOKOS: So Marc is going to go back to the
3 first slide.

4 THE WITNESS: Uh-huh.

5 MS. DUPRE-TOKOS: So that one, for the most part,
6 they're more up and down.

7 THE WITNESS: Yep.

8 MS. DUPRE-TOKOS: And then go to next one, Marc.

9 MR. NOEL: Okay.

10 THE WITNESS: The --

11 MS. DUPRE-TOKOS: They're more horizontal.

12 THE WITNESS: The problem with the Sacramento valley,
13 it's a long north south valley, and not a very broad east
14 west valley. So it's hard for us in the valley -- in the
15 Sacramento valley to get an east wind or a west wind
16 because the mountains here are why. It's easy for us to
17 get a north wind or a south wind, because we have that
18 long stretch of flat.

19 MS. DUPRE-TOKOS: But do the directions of the -- of
20 the black lines -- does that mean anything?

21 THE WITNESS: Um --

22 MS. DUPRE-TOKOS: Up and down versus more sideways?

23 THE WITNESS: Well --

24 MS. DUPRE-TOKOS: Or is that going to be a really
25 complicated explanation?

26 THE WITNESS: Well, what they're showing is -- is a

1 -- lines of equal pressure here, so these -- these numbers
2 here, 1,022; 1,028 inches of millibars. So every four
3 millibars you'll have another line, and so 1,028 here;
4 this one is 1,024; this would be a 1,020 so that shows
5 it's lower pressure here and higher pressure here.

6 So think of your bathtub, when it drains it's
7 going to have lower pressure, and the tub is going to have
8 higher pressure as the water is going down the drain.

9 MS. DUPRE-TOKOS: Okay.

10 THE WITNESS: Did I answer that?

11 MS. DUPRE-TOKOS: Yep.

12 BY MR. NOEL:

13 Q. All right. So let's go back here to surface high
14 moving east?

15 A. So we -- we talked about day one. The storm
16 going through the Pacific Northwest. We talked about day
17 two, the north winds developing in the Sacramento valley,
18 but not much happening in the mountains.

19 This is night two. This is after the north winds
20 in the valley have died down, but the Jarbo Gap winds,
21 they get going. The Jarbo Gap winds through -- through
22 the mountains there, through the Feather River Canyon,
23 they're a nocturnal wind. They're a nighttime wind. They
24 pick up usually around midnight, peak around sunrise and
25 then it will diminish in the afternoon the following day.

26 Surface high pressure now moves well on the east,

1 it's trying to push air to the coastline here because, you
2 know, we have more air here. We have less air here. It's
3 trying to bully its way to the coast. We -- it can't get
4 there because the Sierra Nevada is blocking it. So it's
5 looking for nooks and crannies in the mountains. So you
6 see these lines kind of parallel to the mountain range.
7 That's what you look for for a Jarbo Gap wind. This is
8 not a tremendous wind. Maybe a 30, 40 mile an hour wind
9 through the Jarbo Gap, but it's -- but it's a wind -- a
10 wind nevertheless.

11 Next slide just will show another example. This
12 is also what I'm looking for if I'm forecasting the Jarbo
13 Gap wind, I'd also look at the 30 or 40 mile an hour wind
14 here. If we had, say, another one of these black lines,
15 one of these isobars -- and if we had one there then that
16 would be a more significant north wind because the more
17 pressure difference you have, the greater the wind is
18 going to be. So if we had, say, a third line there, then
19 I would think about 50, 60 mile an hour gusts, something
20 like that.

21 So -- but, again, these -- these lines parallel
22 in the mountains that's what you look for when you're
23 looking at this kind of stuff.

24 Q. All right. So --

25 A. So another way to look at it. Let's -- let's
26 look back to just last Tuesday night. It was windy there

1 last Tuesday night. This is Jarbo Gap. This is just a --
2 last Tuesday, I think that's Wednesday, but this is
3 Tuesday night we're looking at. The winds gusts here,
4 59 miles an hour. 10:13 in the evening or so. 41 at 9:13
5 in the evening.

6 Next slide.

7 Q. All right. Before we get on to that --

8 A. Sorry.

9 Q. -- this is the -- you're talking about reading
10 from the Jarbo Gap RAW station, correct?

11 A. Yes, sir.

12 Q. Can you give us a brief explanation of what a RAW
13 station is?

14 A. RAW stands for Remote Automated Weather Station.
15 It's just a station out in the sticks where nobody has to
16 be there, just operated by remote computer. It's just all
17 on its own. It's a station that measures rain, wind,
18 temperature. The wind is -- you can't just stick an
19 anemometer out in your backyard and hope for the best
20 reading. You have to have it mounted correctly. I see so
21 many people with a backyard weather station mounted under
22 a tree or something like that. You got to put your
23 anemometer -- it has to be 33 feet above grounds level,
24 has to have a nice open spot so wind can come in. So it
25 has to be -- there are rules for these stations to submit
26 accurate data. This station is official. It meets all

1 the official guidelines that -- that nerds in meteorology
2 have established for good weather data to come our way.

3 Q. What is an anemometer?

4 A. An anemometer is a wind measuring Device. It's
5 just big thing out there with -- there are a couple, but
6 probably the most common kind has three cups, and it spins
7 around and it measures wind.

8 My daughter, when she was two years old, she used
9 to call it "Daddy's fan," on the chimney because it was
10 spinning up there, so just something that spins and
11 captures the winds.

12 Q. All right. And who -- who does the Jarbo Gap
13 weather station belong to?

14 A. Western Region Climate Center.

15 Q. And what is that?

16 A. They're an agency in Reno and they -- they run
17 it. They -- they disseminate data to the public, National
18 Weather Service. This is -- this from the National
19 Weather Service site. If those nerds are sanctioning it
20 and -- and okay with it, it's -- it's an accurate and
21 verified station.

22 My weather station in my backyard, I believe it
23 sounded pretty good, but it's not official.

24 THE COURT REPORTER: I'm sorry, did you say "merit"?

25 THE WITNESS: Probably.

26 THE COURT REPORTER: Okay. I thought you said

1 "nerds," I'm sorry.

2 THE WITNESS: Oh, no, I did say nerds. I did say
3 nerd.

4 THE COURT REPORTER: Okay.

5 THE WITNESS: I'm a nerd so I can call them nerds.

6 MR. NOEL: Exactly. Nerd is used -- you use that as
7 a term of endearment for your fellow meteorologists.

8 THE WITNESS: Exactly. Exactly. It was not okay in
9 high school, but it's okay now.

10 BY MR. NOEL:

11 Q. All right. So let's go on and talk about high
12 pressure in the Great Basin.

13 A. So this is yet another way of looking at that.
14 First off, I apologize, we're talking about a -- we are
15 going to mix the metric system and America is empirical
16 system or whatever. So the numbers are a little bit
17 different here, but one kilometer is still six tenths of a
18 mile. It's the same distance. It's just a different way
19 of saying it basically.

20 So these numbers are millibars. I broke this one
21 out here of Ukiah, just to show you the timestamp. At
22 night -- 25th at night, at 9:00 at night, about the same
23 time the Jarbo Gap winds were gusting 40 to 50 miles an
24 hour. Just want to show that. And also the American way
25 of doing it, inches of mercury, 30.27. The metric way of
26 doing it is with millibars, but measuring the same thing,

1 air pressure.

2 So in Nevada, what do we got in air pressure?
3 The blue numbers is what we're looking at. 1024.9, 1024.8
4 millibars. 1024.8 millibars. So around about 1024, 1025
5 millibars in the Sacramento valley.

6 Look up to Alturas, 1032. Reno, 1031. Tahoe,
7 1032. So what is that? 8 millibars roughly difference.
8 Not a great span. So there is higher pressure here, more
9 air here. There's lower pressure here. Same thing we're
10 looking at on the -- on the charts a little bit ago. So
11 we're trying to send all this higher pressure air here to
12 the valley, trying to flood it into the valley somehow.
13 It's trying to get from a higher place to a lower place
14 basically.

15 But, again, Sierra Nevada, big brick wall. I
16 mean, there's -- what, Alturas is, what, 4500 feet. Same
17 with Reno, in that area. And then these mountain peaks
18 are, what, 6, 7,000, 8,000 feet or so. So it does not
19 like to climb these mountain ranges. It's colder air.
20 It's heavier air. It's -- cold air is heavy, it's dense.
21 It sinks down to the ground basically. It's not like
22 summertime air which flies all over the place. Cold air
23 is heavy and dense and sinks down to the ground. It does
24 not want to climb these mountains. It's looking for a
25 little gap, and a little pass, a little nook and cranny in
26 the Sierra Nevada. Sure before the -- you have several

1 points there. Yuba River has a few canyons there.
2 American River Canyon is a canyon, but the Feather River
3 Canyon, just a beautiful long stretch running right
4 there -- boom -- and really is effective way of
5 draining -- actually, I didn't want that -- right there
6 draining the air from the higher pressure to the lower
7 pressure. Again, whether you take a -- water from a lake,
8 and it flows out of the lake and it flows into a little
9 narrow skiddy channel then it's going to really pick up
10 momentum, it's going to accelerate, get a little choppy
11 and whatnot. Same thing is happening with the atmosphere
12 when that air goes from a -- from a broad area and is
13 forced into the Feather River Canyon, it's going to pick
14 up momentum, and it's going to pick up speed and it's
15 going to accelerate, and you're going to get those 40, 50,
16 60, 70 mile an hour winds at Jarbo Gap.

17 Q. Does the altitude difference affect that at all
18 also?

19 A. Not tremendously in my opinion. I think we're
20 just pushing air from higher pressure to lower pressure.

21 Q. All right. All right. Let's move on. Here we
22 are talking about the Jarbo Gap RAW station.

23 A. So this station is important here for -- for what
24 we're going to talk about today. This is the Jarbo Gap
25 weather station. Again, way up there, fenced off so
26 nobody can do anything to it. This is the Feather River

1 Canyon, which I labeled here. Here is the station. It
2 does sit a little above the Feather River Canyon but,
3 again, this is not downtown Chico. This is not downtown
4 Sacramento. It's out in the middle of the sticks here, so
5 data is rather sparse in this area. There is not a lot of
6 wind stations out in the boondocks here. This is good one
7 that has been out there since 2003. PG&E has put up a few
8 in the past year or two on some of these ridge tops. Flea
9 Mountain has one. Rim Road in Concow has one. They
10 measure some -- some wind. They've only been there for a
11 year, year and a half, two years. Before the fire, there
12 wasn't much out there. And so this -- this one was pretty
13 much it as far as good accurate weather numbers from the
14 area. If you're familiar with that area, you know,
15 Highway 70, if you all know where Scooter's Cafe is there,
16 at the top of that little ridge, before you drop down into
17 the Feather River Canyon, it's real close to that. But
18 it's kind of at the bottom of the Feather River Canyon and
19 measures the winds very nicely.

20 Q. All right. Did I skip one here? We seem to be
21 missing a slide, but we will go on.

22 A. Again --

23 Q. Next up.

24 A. -- here is just a little more on the Jarbo Gap
25 station. Here is the Feather River Canyon. It's a huge
26 channel, the mountains are nice and high. There's a

1 nice chasm right there through the -- through the Sierra
2 Nevada. There's tower 27/222, so it's about six miles
3 away from -- from the tower itself. Elevation is a little
4 bit higher than the tower, but not by a whole lot
5 basically. And some of the data between 2003 and 2013 --
6 some to the wind data was a little bit -- a little bit off
7 so I did not use that data and calculations as you'll see
8 later on. Starting about 2013, the data got really good
9 and has been really good ever since then, and those number
10 are the only numbers I used in any kind of calculations
11 going forward.

12 Q. What makes you think that the data from 2003 to
13 2013 is -- is off?

14 A. There were some gusts in there up to 180 miles an
15 hour that's just not -- that's not likely. And also there
16 were a number of gusts to exactly 100 miles an hour.
17 Finding a gust to an exact number often would be very
18 difficult to do. You can get a gust of 52, a gust of 54
19 and a gust of 56, you know, right in the same area. But
20 to have a gust of 55, 55, 55, 55, seven days in a row
21 would really be highly unlikely, and I saw some of that
22 between 2003 and 2013, and I reached out to the folks that
23 were running it, and I never heard back from them yet, as
24 to what they say. I -- I imagine it might be a software
25 issue of some kind. But until that's confirmed, I don't
26 feel we can use that data, so I didn't.

1 Q. All right. So all of your calculations on the
2 wind data are based on 2014 to the present, correct?

3 A. Correct, correct.

4 Q. All right. So let's talk about those. First up,
5 we have a chart entitled Jarbo Gap wind gust greater than
6 or equal to 45 miles per hour.

7 A. Yes.

8 Q. So explain this chart to us.

9 A. Well, PG&E put 45 mile an hour gusts as their
10 criteria for windy conditions, I believe. So it shows
11 that number. And what I did is I basically just looked at
12 all the data from now, the 25th all the way back until --
13 2014 or so. So a six-year period there of all the wind
14 gusts at Jarbo Gap station, greater than or equal to 45
15 miles an hour. And you see a bunch of them. You see back
16 last October, 70 miles an hour on October 27th. October
17 26th, 70 miles an hour as well.

18 This is the monthly break down. So last month,
19 there were two days that we had 45 mile an hour gusts or
20 greater. Last November, four days of 45 mile an hour
21 gusts or greater. Last October, 14 days of 45 mile an
22 hour gusts or greater.

23 Q. Now, we keep going and now we're back into --

24 A. Yeah.

25 Q. -- 2018.

26 A. There's November 8th, 52 mile an hour gust that

1 morning. That wasn't the only time it was windy that
2 fall. The day before, 45 mile an hour gust. Halloween,
3 46. Middle of October, 48. That October, we had five
4 days of 45 mile an hour or greater wind gusts, and we had
5 one other one in November. September, we had two. So,
6 boy, before the Camp fire started, we had, what, seven --
7 eight days -- eight other days of 45 mile an hour or
8 stronger winds at that same Jarbo Gap location. So it
9 wasn't just the winds on November 8th that were
10 tremendously strong. There were eight other times just
11 that fall that we had winds that strong as well.

12 Q. All right. And if we take this all the way back
13 here to 2013. December of '13, it looks like seven days
14 with gusts over 45?

15 A. Uh-huh.

16 Q. All right. Now, we're onto the wind break down
17 itself.

18 A. So just to kind of summarize here. Over the past
19 six years, which we have good reliable data from the Jarbo
20 Gap wind station, the winds have gusted at our above 45
21 miles an hour there at Jarbo Gap 118 times. So it happens
22 a lot. That averages about 20 times per year, 19.6 if you
23 want to do the math. But about 20 times a year, we got
24 45 mile an hour gusts or greater at Jarbo Gap. That is a
25 windy location. That is a windy location. 50 mile an
26 hour gusts happen about 11 times per year at this Jarbo

1 Gap location.

2 Strongest gusts, we talked about that, 70 miles
3 an hour on the 26th and 27th. Remember that 70 mile an
4 hour, we will address that in a moment -- in a little bit.
5 Most often they're going to happen in the fall and the
6 winter. Fall is our -- summer and fall are our fire
7 seasons. Fall is when the vegetation is just bone dry
8 there in September and October and -- and that's when this
9 is very common.

10 You see the monthly break down. So 18 times in
11 January in those six years between 2014 until now, we had
12 45 mile an hour winds or greater. February, 16 times. So
13 forth and so on. Notice they did not happen in July or
14 August, because these winds most often happen behind the
15 passage of cold fronts. I can't remember the last cold
16 front we had in July or August around here. It just
17 doesn't happen. So there's no winds. We don't have them
18 then.

19 Strong -- the month of it happening the most,
20 October. 32 times in the past six years, we had 42 mile
21 an hour gusts or greater. December, also, the second
22 active month -- most active month at 23. We have a little
23 bit, but overall, you see fall a very active time for
24 these Jarbo Gap winds in that year.

25 Q. And, again, the note on bottom about the issues
26 with the data from 2003 to 2013.

1 A. Yes. Yeah, so the good data goes back until
2 2013. I opted to use the periods of March 2014 up until
3 now, so -- and not include, say, January 2013, so we
4 didn't have seven Januarys and six Augusts or whatever, so
5 I keep it six years exactly, so the monthly breakdown
6 would work.

7 Q. All right. Next up. Talk about the conditions
8 according to RAWS on November 8th.

9 A. So at that station, they were greatest, the
10 morning of the Camp fire. It was windy. That night
11 before there, we were gusting 52 miles an hour there at
12 4:00 in the morning, fire started around 6:30 in the
13 mornings. 6:13 on the station, gusting at 40 miles an
14 hour. So it was windy that morning.

15 Also the second number here, humidity. Humidity
16 is low, 23 percent here. So it's very dry and it's windy
17 in that area at the time that the fire started and
18 following as well.

19 Q. So basically, the fire started at 6:15 a.m. so
20 two minutes before that 48 degrees. What's the 12?

21 A. Dew point. That's the dew point. That's a very
22 low number.

23 Q. That's the --

24 A. Very dry air.

25 Q. What does the dew point mean?

26 A. The measure of how much moisture is in the air.

1 You have to cool the air down to what temperature to get
2 the dew on the grass? You have to cool it down to 12
3 degrees to get dew on the grass. That is a very low
4 number. That's a very dry air we have there.

5 Q. So 23 being the relative humidity?

6 A. Uh-huh, yes.

7 Q. And you said that's very low?

8 A. Very low.

9 Q. And then we have our north by northeast winds.

10 A. Uh-huh.

11 Q. Sustained at 18 with gusts of up to 40 right at
12 the time the fire started.

13 A. Yes, sir.

14 Q. All right. Next, we a picture of the Camp fire
15 smoke plume.

16 A. Yes. This is a visible picture of the Camp fire
17 smoke plume. You can see the fire outline nicely. You
18 can see the smoke plume rather nicely as well. Notice the
19 smoke plume is, there's no smoke down here towards Lake
20 Oroville. There's no smoke over here. There's no smoke
21 over here. It's all -- boom -- being pushed by the wind.
22 The wind is moving the smoke plume, therefore, it's moving
23 the fire as well. Remember back -- remember we had the
24 Carr fire back just -- not long before the Camp fire, and
25 the smoke plume of the Carr fire -- it was everywhere. We
26 had a big mushroom cloud in Redding. Pyrocumulus was

1 towering 40,000 feet. This -- that was a summertime fire
2 with light winds, but tremendous heat. This one, the --
3 the heat wasn't tremendous, but the winds were tremendous.
4 You see the wind really pushing this smoke plume -- boom
5 -- in one direction into that northwest wind.

6 Q. All right.

7 A. Here is just another graphical representation of
8 the smoke plume from the Camp fire. You can see it not
9 ascending -- not rising vertically much. It got up to
10 about 10,000 feet or so, which for a big fire is not
11 really that tall. Again, the Carr fire, back just July of
12 2018, that smoke plume I remember pegging that thing at
13 37, 38 thousand feet or so, and I think it got almost to
14 about 40,000 feet. So that smoke plume really dominated
15 the skyline. The Mendocino complex fire, that smoke plume
16 was also really dominant and tall. This fire, the Camp
17 fire did not let that happen, because the winds would not
18 let that happen. The Camp fire -- the Carr fire winds not
19 much. There was a little bit, but not much so the smoke
20 plume was allowed to rise vertically. Mendocino Complex
21 allowed to rise vertically. Delta fire, which we had also
22 that summer, the smoke -- boom -- going up tall, because
23 the winds were not that strong. This smoke plume did not
24 get tall because the winds wouldn't allow it. The winds
25 -- whoosh -- pushed it away. Think of, if you're a camper
26 or so, and you have your camp fire going, if there's any

1 kind of wind out there, it's going to blow the smoke away.
2 If there's no wind, the fire from the campsite is going to
3 go straight up. Wind pushes fire and pushes that smoke
4 plum.

5 Q. And then down at the bottom, you credit your
6 source here: Neil Lareau, UNR physics professor?

7 A. Yes.

8 Q. Can you explain to us who -- who Mr. Lareau is?

9 A. He's a physics professor at University Nevada
10 Reno. He does a lot of work also on fires, on fire
11 behavior, on smoke plume behavior. He is an expert in the
12 area. He works, I believe, with the San Jose State
13 University, their fire lab, which they have as well. So
14 he definitely knows what he is talking about with all of
15 this stuff.

16 Q. All right. Climate change?

17 A. Yes. And so the Jarbo Gap station goes back to
18 2003. Again, it's a very data sparse area. We don't have
19 a lot of data from the area, unfortunately.

20 Let's go back to 1984, 1985. We have one year of
21 data here for PG&E. This is at Rock Creek Reservoir,
22 which is -- boom -- right there on the bottom of the
23 Feather River Canyon, just a little bit above canyon --
24 just a little bit above stream -- above stream of where
25 the fire started, and so a good representation of the
26 winds. And remember the peak wind gusts at Jarbo Gap?

1 The strongest we had in the past six years, 70 miles per
2 hour. We will keep it fair. Peak wind gust here at Rock
3 Creek Reservoir, 73 miles an hour. So they agree.
4 They're saying the same -- they're not -- this one is not
5 having some number that is wildly outrageous compared to
6 the Jarbo Gap, or this one doesn't have much lesser winds.
7 They are both suggesting winds that are topping out around
8 70 miles per hour at their strongest in that area.

9 This happened back, again, 30, 35, years ago. So
10 there's been very little change in the strength of the
11 wind in the past 35 years. So I am a believer in climate
12 change, but this -- this -- this to me is proving that the
13 winds have not changed in the past 35 years, so I don't
14 believe we can attribute these Jarbo Gap winds getting
15 worse due to climate change for the most part. This is
16 one example here at Rock Creek. I believe we have another
17 example.

18 Q. Yep. And before we even get to that --

19 A. Sorry.

20 Q. -- we talked about -- actually, we will go on to
21 the next one, and then we will get to the base of that.

22 A. This is Cresta Reservoir, which is pretty -- also
23 at the bottom of the Feather River Canyon, not too far
24 from Rock Creek, not too far from tower 27/222. Peak wind
25 gust here is 66. There's -- so in this same ballpark.
26 This is going to 70 there. So the difference between

1 these numbers, by the way, this one is averaged out over a
2 three-minute period and this one is averaged out over a
3 four or five-second period, so you get bigger numbers on
4 this one.

5 Q. You're talking about the chart on the right
6 compared to the chart on the left?

7 A. Yes. They're both the same station. Both say
8 Cresta. Again, this one is averaged out over a longer
9 period of time, a couple of minutes compared to just a few
10 seconds here. So you can get -- it's like if you're
11 driving on the freeway. You can -- well, it -- it's
12 easier for -- to measure higher winds gusts if you have a
13 shorter amount of time in doing it.

14 Q. All right. So you said that this comes from PG&E
15 records, correct?

16 A. Yes.

17 Q. How did you get PG&E records?

18 A. From the Exponent report, I believe.

19 Q. Okay. Well, first of all, we hired you some time
20 ago to meteorological expert for this investigation,
21 correct?

22 A. Yes.

23 Q. And some of the resource materials that we gave
24 you to start off with --

25 A. Yes.

26 Q. -- do you remember who those were?

1 A. The Exponent reports.

2 Q. The Exponent report, and then didn't we also give
3 you the PG&E wind reports?

4 A. Yes, yes, yes.

5 Q. All right.

6 A. That's what I --

7 Q. That's what we're going to go to next. In front
8 of you on the desk is Exhibit 1354.

9 Do you see that?

10 A. Yes.

11 Q. And do you recognize 1354?

12 A. I do, I do.

13 [Exhibit No. 1354 was identified.]

14 BY MR. NOEL:

15 Q. What is 1354?

16 A. It's a lot of data here. This -- this almost put
17 me to sleep a few nights. But there are a lot of -- of
18 observation sites here -- Martinez, San Luis Obispo, San
19 Jose, Los Banos. They are literally a hundreds, if not
20 more, observation sites reporting their wind and mostly
21 wind data in these areas.

22 Q. Now, let's get more even more basic than that.

23 A. Okay.

24 Q. If you can look at page two of that. This is the
25 1990 PG&E Extreme Wind Estimates Along the PG&E
26 Transmission Line Quarterly Report, correct?

1 A. Yes.

2 Q. An internal PG&E document?

3 A. Yes.

4 Q. And as you mentioned, this is something that is--
5 that is -- that was discussed and cited in the Exponent
6 report, correct?

7 A. Yes.

8 Q. All right. So let's move on to 1355, that big
9 black binder in front of you.

10 Do you recognize Exhibit 1355 is?

11 A. Yes.

12 [Exhibit No. 1355 was identified.]

13 BY MR. NOEL:

14 Q. And what is 1355?

15 A. More numbers, more data in other areas as well,
16 Mather Air Force Base. Just talking wind speeds, gusts,
17 things like that.

18 Q. Specifically, this is the 1999 PG&E technical --
19 Technical and Ecological Services Extreme Wind Speed
20 Estimates along the PG&E Transmission Line Corridor
21 Report, correct?

22 A. Huh-uh, yes, sir.

23 Q. And then finally 1356. Do you recognize 1356?

24 A. Yes.

25 [Exhibit No. 1356 was identified.]

26 ///

1 BY MR. NOEL:

2 Q. What is 1356?

3 A. More fun wind stuff.

4 Q. Okay. This time the 2015 PG&E Extreme Wind Speed
5 Estimates Across The PG&E Service Territory, correct?

6 A. Yes.

7 Q. So you've been able to mine the data from PG&E
8 internal winds -- wind reports, correct?

9 A. Yes. And so there was a lot of -- a lot of data
10 in there that didn't pertain to us -- Martinez, San
11 Jose -- really not pertinent in this case. But Cresta and
12 Rock Creek and Feather River Canyon, I felt were very
13 valuable and very useful numbers to have.

14 Q. All right. And showed high winds in the Feather
15 River Canyon, correct?

16 A. Yes, they did, which aligned very nicely with
17 Jarbo Gap wind station.

18 Q. All right. And, finally, let's talk about
19 drought.

20 Now in 2018, were we in a drought?

21 A. Officially, no. We had been in a drought for a
22 while, but because of the winter of 2016 and '17, which
23 was a very wet winter. That one broke us out of the
24 drought. We had the spillway disaster there with Lake
25 Oroville because it rained so much. 2017, '18, that
26 winter was a dry winter. Because the previous winter was

1 so wet, we weren't officially in a drought in Butte
2 County. It was abnormally dry, but not officially in
3 drought for us at that time.

4 Q. Now, let's talk about when we were in drought.

5 A. So, again, we had just gone through a very
6 significant drought for us. I'm sure a lot of you noticed
7 people taking the lawns out of their yards and putting in
8 drought tolerant landscaping and things like that back in
9 2015 or so.

10 This is from the U.S. Drought Monitor showing the
11 progression of the drought the California. It began in
12 2012. It continued in 2013, 2014. I remember we were
13 talking about 70s in January and no rain, and that's when
14 the drought became exceptional across most of our area,
15 including us in Butte County. That exceptional drought
16 continued in 2015 here, and then it was finally the really
17 wet winter in 2016 that broke us out of it. But we were
18 in exceptional drought, the -- the greatest category. We
19 were in that in Butte County for at least two years and
20 that really is going to stress your plants, your trees,
21 things like that. That is going to kill some trees and
22 vegetation and things like that in some of the hardy
23 manzanita and whatever out there. And so, again, we had
24 just gotten out of a very significant drought.

25 Q. All right. So let's talk about how bad that
26 drought was historically?

1 A. As far as California droughts go -- and we all
2 know California droughts are not uncommon. We -- we get
3 them. But this particular drought was one of the worst
4 that we had here of the six worst droughts in California's
5 history, and this one pretty much equal with the worst of
6 them, basically. So we can't say it was in the worst, but
7 we can certainly say it was right on par with one of this
8 worst. And, again, the blue line is state-wide
9 precipitation over the -- California kind of averaged out
10 basically. You notice the number here for this drought is
11 similar to the number of the drought back to -- the last
12 big drought we had, another big drought we had, and these
13 numbers are all very similar. The run off for the
14 mountains -- that's the black line here -- also rather
15 similar to these other -- well, one, two, three, four
16 significant droughts as well.

17 So it stands out as a very significant drought in
18 the past 100 years for us in California.

19 Q. And this was right on the heels of another
20 significant drought from 2007 to 2009, correct?

21 A. Yes, it was. Absolutely, absolutely. And then
22 this is what was happening in Paradise in 2018. A lot of
23 numbers here. But this is rain fall in Paradise, and a
24 lot of seasons here. So we will look at 2018, which is
25 highlighted in blue. And let's see here, this is June of
26 2018, Paradise. No rain. Not too surprising. So was

1 July of 2018, Paradise. No rain. August of 2018,
2 Paradise, no rain. September, no rain. October, 14
3 hundredths of an inch of rain. November, no rain as well.

4 So we had 14-hundredths of an inch of rain since,
5 basically, Memorial Day up until the time of the Camp
6 fire. 14-hundredths of an inch of rain. That is nothing.
7 That is very, very little. Average -- that is what we're
8 looking at here now, average numbers look like that.

9 October, averages over three inches of rain. November --
10 okay, average fall over seven -- but the fire happened on
11 the 8th there, so we can only say average for day one
12 through the 8th of November is probably about an in and
13 half or something like that in that ballpark. Up there,
14 we have nothing.

15 So between about Memorial Day and the time the
16 Camp fire started, we had 14-hundredths of an inch of
17 rain, whereas normally in Paradise -- or on average in
18 Paradise, we should have had over five inches of rain,
19 even closer to six or so. So it was a very dry start to
20 2018, and it had been a very hot summer as well. So
21 plants, trees were dry.

22 Q. All right. Let's go on to the effect of that
23 cycle.

24 A. So the winter of 2017, 2018, it was dry. For the
25 whole of the season, it was dry. But not every month
26 through the season was dry. There were two months in

1 2017 -- in that -- in that winter that were above normal
2 with rain. Those two months? March and April. Grasses,
3 you're traditional grass which grows in the valley and
4 foothills or whatever, that rose and really it's growing
5 in a two-month period. Want to guess what period? March
6 and April. So even though the winter was dry, those two
7 months, March and April, were wet. That's when the grass
8 needs the rain. That's when the grass got the rain, and
9 so the grass went bananas in that time, even though it had
10 been a dry winter.

11 UC Davis, my alma mater, they have a station down
12 in Browns Valley, which is in between Marysville and Grass
13 Valley, and they grow grass, and they measure that grass.
14 They don't water it or anything, they just let it go and
15 they're measuring it and seeing the effects on the
16 weather, everything on that grass. They harvested almost
17 double what they normally get because that March and April
18 was so wet. It really caused the grasses to go nuts. So
19 there was a lot of grass out there that had been very dry
20 from the summer and the fall. So that grass, a lot of the
21 buffer crop of grass got to be very, very dry by the time
22 the fire started.

23 Q. All right. Let's move on and talk about
24 evaporative demand and how the drought plays into that.

25 A. This is -- yeah. Environmental Demand Drought
26 Index, EDDI. What it basically is talking about is if the

1 air is very dry, it's going to start to take moisture from
2 the plants. If the air is really -- even if humidity is
3 down to 12 percent or 10 percent, something like that,
4 that's going to start to take some of the moisture from
5 the plants. This EDDI index measures that a little bit,
6 basically.

7 Q. All right.

8 A. This is a three-month look at the EDDI index
9 prior to the Camp fire. Extreme conditions are in this
10 darkest shade, which happen to right here over Butte
11 County. So this index is suggesting that the -- the
12 dryness of the air that we had that fall was -- was taking
13 moisture from the plants, draining the plants of their
14 moisture, making them even drier than they should have
15 been had the weather been nicer.

16 You can all call it negative rainfall, because
17 rainfall is the -- obviously it's going to green up the
18 grass or green up the trees or whatever. This is almost
19 negative rainfall because it's taking water from the
20 plants.

21 Q. All right. And let's talk about what that all
22 means in energy release.

23 A. This is something that I talked about a little
24 bit on air sometimes. The energy release component. This
25 is basically an index just to talk about how -- how -- how
26 flammable the fuels are. How ready to go they are. If

1 you go out there right now, and try to start a grass fire,
2 you might have not a whole lot of success. The grass is
3 green right now. If you to that in December or October,
4 it's going to get going.

5 This basically measures that. Just how ready to
6 go in a fire these fuels and trees, brushes shrub and the
7 grasses are basically.

8 Q. And, finally, the chart of the energy release
9 components for this area in November of '18.

10 A. Yes. And so what we're looking at here, again,
11 the -- the gray line is what it -- what average for this
12 area would look like. The red line is the maximum, the
13 most, the greatest number it sees, basically. The blue
14 line is the current. So got a fall of an average, got a
15 fall of an average, and then right about the time the Camp
16 fire started, it's now going to territory not seen before
17 for November 8th. So the fuels were bone dry. They were
18 ready to basically explode, basically. Energy release
19 component, this is what the firefighters use and it shows
20 and try the vegetation wuss in early November.

21 Q. Basically wind, dryness, the perfect storm for a
22 fire, correct?

23 A. Yes.

24 MR. NOEL: I have nothing further. Do any of the
25 jurors have any questions?

26 MS. DUPRE-TOKOS: While they gather them, Kris, did

1 you just say that CAL fire uses this data as well?

2 THE WITNESS: Yes.

3 MS. DUPRE-TOKOS: Okay.

4 MR. NOEL: Okay. All right. Now, this is -- the
5 first question is referring to the -- the wind reports you
6 have. And the question is:

7 How far back was it potentially understood by
8 PG&E that high winds existed in the Feather River Canyon?

9 THE WITNESS: I -- I don't know if I can speak for
10 PG&E, but they have their Cresta -- I mean, the reports of
11 Cresta and Rock Creek from the middle 1980s showing gusts
12 of 70 miles an hour there. Seems pretty obvious that that
13 is a windy location. That's not just -- they have two --
14 two data points there, Cresta and Rock Creek. If they
15 have two data points, both showing gusts of 70 miles per
16 hours.

17 In my opinion, I would think they should know
18 that the Feather River Canyon is a very windy place, at
19 least back to 80s. At least.

20 MR. NOEL: How do you explain the speed in which the
21 fire spread in Paradise, was there anything unique about
22 the wind direction?

23 A. Wind direction was steady to the northeast. That
24 would push it. The winds were strong. The fuels were
25 bone dry. And so I imagine a fire right now would not
26 spread very fast. The fuels are moist and wet. The grass

1 is green. But at that time, the fuels were exceptionally
2 dry. I mean, just absolutely dry. So I mean, if you've
3 ever tried to start a fire in -- in -- you know, in your
4 -- in your fireplace or if you're camping and try to start
5 a fire or something like that, you don't get the wet
6 grass, you get the really dry grass to get that fire first
7 started. That's what we have. That very dry grass. You
8 don't use the wet wood, you use the driest wood possible
9 if you're going to try to get a little campfire started or
10 whatnot. We had very dry wood because of that.

11 MR. NOEL: Any follow up? No?

12 Madam Foreperson is going to have an admonishment
13 for you, and then you are done.

14 THE WITNESS: Okay.

15 GRAND JURY FOREPERSON: Mr. Kuyper, you are
16 admonished not to discuss or disclose at any time outside
17 of this jury room the questions that have been asked of
18 you or your answers until authorized by this grand jury or
19 the Court.

20 A violation of these instructions on your part
21 may be the basis for a charge against you of contempt of
22 court. This does not preclude you from discussing your
23 legal rights with your own attorney.

24 Mr. Kuyper, what I have just said is a warning
25 not to discuss this case with anyone except the Court,
26 your lawyer, or the district attorney.

1 Do you have any questions?

2 THE WITNESS: No questions.

3 GRAND JURY FOREPERSON: Thank you for your time

4 today.

5 THE WITNESS: Certainly. Thank you for having me.

6 MR. NOEL: All right. Kris, you can get out of here.

7 THE WITNESS: All right.

8 MR. NOEL: All right. Move all of these. In if I

9 didn't do so earlier, I would also move Mr. McGormley's

10 presentation.

11 [Whereupon, all previously identified exhibits were

12 admitted.]

13 MS. DUPRE-TOKOS: We have handouts for him.

14 [Witness enters the courtroom.]

15 MR. NOEL: All right. Go ahead and pass these out.

16 THE DEFENSE: This is a lengthy PowerPoint, so get

17 comfortable.

18 Whenever you guys are ready, we have Mr. Barkley

19 standing by.

20 GRAND JURY FOREPERSON: Lieutenant Barkley, would

21 like to come up and have a --

22 MR. NOEL: Yes, ma'am.

23 GRAND JURY FOREPERSON: And before you have a seat,

24 would you please raise your right hand?

25 MR. NOEL: Yeah.

26 GRAND JURY FOREPERSON: Lieutenant Barkley, do you

1 solemnly swear that the evidence you shall give in this
2 matter pending before the grand jury shall be the truth,
3 the whole truth and nothing but the truth so help you God?

4 THE WITNESS: I do.

5 GRAND JURY FOREPERSON: Thank you, have a seat.
6

7 **EXAMINATION**

8 BY MR. NOEL:

9 Q. Just, again, for the record, could you state your
10 name, spelling your last name?

11 A. My name is Jason Barkley, B-A-R-K-L-E-Y.

12 Q. And remind us how you're employed?

13 A. I am an Investigative Lieutenant with the Butte
14 County District Attorney's Office.

15 Q. And how long have you been a peace officer?

16 A. 19 years, 11 months.

17 Q. All right. You have in front of you what's
18 marked as Exhibit 1357.

19 A. Yes, sir.

20 Q. See that item?

21 A. Yes.

22 Q. Recognize that item?

23 A. I do.

24 [Exhibit No. 1357 was identified.]

25 BY MR. NOEL:

26 Q. What is that item, number 1357?

1 A. It is a fire-threat map from the CPUC.

2 Q. Did you obtain this map?

3 A. Yes.

4 Q. And can you explain to us how you got this map?

5 A. Yes, I conducted a -- a search for CPUC through
6 Google, and I went to their government web site and I
7 located a press release dated January 19th of 2018.
8 Embedded within the press release was a link that took me
9 to a page that contained this map.

10 Q. All right. So this is a publicly available
11 document put out by a governmental agency, correct?

12 A. Yes, sir.

13 Q. And it's a -- a document that's been adopted by
14 the CPUC and CAL fire for use in the state of California?

15 A. Yes.

16 Q. All right. And then real briefly on here,
17 because we can't really see it, but we have Butte County
18 on here, right in this area right there, right?

19 A. Yes.

20 Q. And we can't really blow it up, and we have the
21 Tier 3 fire area in red and Tier 3 yellow --

22 A. Tier 2, yellow.

23 Q. Tier 2, I'm sorry.

24 A. Yes.

25 Q. Were you able to tell what the demarcation is
26 between Tier 2 and tier 3 in that area?

1 A. Yeah, so I blew the map up, and it appears that
2 demarcation line is Feather River.

3 Q. Okay. So to the southeast of the Feather River
4 is Tier 3 to the north and northwest of the Feather River
5 is Tier 2, correct?

6 A. Yes.

7 Q. Thank you.

8 MR. NOEL: That is all I have. Do you have any
9 questions?

10 GRAND JUROR NUMBER FOUR: What -- what distinction in
11 terms of severity would Tier 2, Tier 3 be?

12 MR. NOEL: Don't know. We have to have somebody else
13 come in and address that. So what's important is just the
14 map itself.

15 All right. Anything else? Madame Foreperson?

16 GRAND JURY FOREPERSON: Lieutenant Barkley, you are
17 admonished not to discuss or disclose at any time outside
18 of this jury room the questions that have been asked of
19 you or your answers un authorized by this grand jury or
20 the Court.

21 A violation of these instructions on your part
22 may be the basis for a charge against you of contempt of
23 court. This does not preclude from discussing your legal
24 rights with your own attorney.

25 Lieutenant Barkley, what I have just said is a
26 warning not to discuss this case with anyone except the

1 Court, your lawyer, or the district attorney.

2 Do you have any questions?

3 THE WITNESS: No, ma'am. Thank you.

4 GRAND JURY FOREPERSON: Thank you for your time.

5 MR. NOEL: One more question. Did you bring what I
6 e-mailed you about an hour ago?

7 THE WITNESS: No, I didn't check my e-mail. What was
8 it?

9 MR. NOEL: We had another exhibit that we had to
10 print out. I e-mailed it to you to bring it -- bring it
11 with you.

12 THE WITNESS: I can print it and walk it over if
13 you'd like, or are you done for the day?

14 MR. NOEL: We're done for the day. If -- if you
15 could, real briefly, grab it -- if you could grab it,
16 print it and bring it over, so that it can get put in the
17 record for today.

18 Thank you.

19 GRAND JURY FOREPERSON: Is he good?

20 MS. DUPRE-TOKOS: He's good.

21 MR. NOEL: All right. That is all we have for today.
22 Woo hoo. 1:35. The court will be very happy with me that
23 we're going to be done and out of here, and they all get
24 to go to the swearing in in Chico, so.

25 All right. Do you have a question?

26 GRAND JURY SECRETARY: Are we admitting Exhibit 1357?

1 MR. NOEL: Yes, ma'am.

2 GRAND JURY SECRETARY: Okay.

3 [Exhibit No. 1357 was admitted.]

4 MR. NOEL: And if I haven't done it before, I move
5 all the exhibits from today in.

6 All right. So we're done.

7

8 [Proceedings omitted.]

9 [The proceedings were concluded at 12:37 a.m.]

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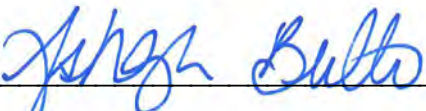
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COURT REPORTER'S CERTIFICATE

THIS IS TO CERTIFY THAT I, ASHLEIGH BUTTON, A
CERTIFIED SHORTHAND REPORTER OF THE STATE OF CALIFORNIA,
WAS PRESENT AT THE TIME AND PLACE THE FOREGOING GRAND JURY
PROCEEDINGS WERE HAD AND TAKEN IN THE WITHIN MATTER; AND
THAT AS SUCH SHORTHAND REPORTER I DID TAKE DOWN IN
SHORTHAND WRITING THE AFOREMENTIONED PROCEEDINGS; AND
AFTERWARDS CAUSED MY SAID SHORTHAND WRITING TO BE
TRANSCRIBED INTO TYPEWRITING; AND THE FOREGOING PAGES,
BEGINNING AT THE TOP OF PAGE 1 TO AND INCLUDING PAGE 145
HEREOF, CONSTITUTE A FULL, TRUE, ACCURATE, AND COMPLETE
RECORD OF THE PROCEEDINGS.

WITNESS MY HAND THIS 17TH DAY OF JUNE, 2022.


ASHLEIGH BUTTON, CSR #14013

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

REDACTED

BCSC-2019-GJ-01

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, MARCH 3, 2020

VOLUME 43

OROVILLE, BUTTE COUNTY, CALIFORNIA

LISA MCDERMID WELCH, CSR 10928, OFFICIAL COURT REPORTER

1 APPEARANCES:

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3 Marc Noel, Deputy District Attorney
4 Jennifer Dupre-Tokos
5 25 County Center Drive
6 Oroville, California 95965

7 FOR THE STATE OF CALIFORNIA DEPARTMENT OF JUSTICE
8 OFFICE OF THE ATTORNEY GENERAL:

9 (No appearance)

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I N D E X

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1 OROVILLE, BUTTE COUNTY, CALIFORNIA

2 MARCH 3, 2020; 8:55 a.m.

3 (Confidential Special Grand Jury Hearing Proceedings)

4
5 [ROLLCALL OMITTED.]

6
7 [DISCUSSION OMITTED.]

8
9 GRAND JURY FOREPERSON: Anything else? Ready to
10 get started for the morning.

11 [Witness enters the courtroom.]

12 THE COURT: Mr. Mandly, before you have a seat,
13 would you please raise your right hand to be sworn.

14 Mr. Mandly, do you solemnly swear that the
15 evidence you shall give in this matter pending before the
16 grand jury shall be the truth, the whole truth, and
17 nothing but the truth so help you God?

18 THE WITNESS: I do.

19 GRAND JURY FOREPERSON: Thank you. Have a seat,
20 please.

21 **EXAMINATION**

22 BY MS. DUPRE-TOKOS:

23 Q. Morning.

24 A. Good morning.

25 Q. Could you state your full name and spell your
26 last name for the record.

A. My name full name is Jason Mandly, M-a-n-d-l-y.

Q. Are you employed right now?

A. I am.

Q. Could you tell us where and in what capacity.

A. I work with the Butte County Air Quality Management District. I am the senior air quality planner for the district.

Q. You said "the." So you're the only senior?

A. I am the only one with the title air quality planner.

Q. Okay. Could you go through a little bit about -- or a little bit on your education and training.

A. Okay. I'm --

[Exhibit 1358 introduced
as evidence.]

BY MS. DUPRE-TOKOS:

Q. Oh, and you have Exhibit 1358 in front of you which is your CV if that makes things a little easier.

A. Great. Thanks.

So I received an education at Florida Tech in Melbourne, Florida with a degree in environmental science with met -- focusing on meteorology. I started my air quality career with the Morongo Band of mission Indians doing air quality monitoring, public outreach. I worked with the Morongo Band of mission Indians from 2008 to 2011.

1 Q. I am going to ask you to slow down a little bit
2 because she does have to type it all.

3 A. Okay. My apologies.

4 I started here with the district in 2011. My
5 first position was an air quality compliance specialist.
6 Duties included doing daily air quality forecasts, permit
7 determinations, permit inspections, compliance, and
8 enforcement.

9 I moved to the planning position in 2015, and
10 that position includes further air quality forecasting,
11 modeling, air quality analysis as well as planning
12 activities and environmental review and public outreach.

13 Q. It looks like you work with the state and
14 federal agencies as well in your current position.

15 A. Yes. We work with the California Air Resources
16 Board and also the Environmental Protection Agency
17 specifically their region nine office in San Francisco.

18 Q. Okay. So Environmental Protection Agency. Most
19 people know that as the EPA?

20 A. Correct.

21 Q. And the California Air Resources Board. You
22 guys call it CARB?

23 A. Correct. CARB is their acronym, and usually
24 it's CARB in a lot of materials. So that's the state air
25 quality agency.

26 Q. So walk us through -- as a senior air quality

1 planner, walk us through what you normally do at least in
2 the morning, the start of your day when you get to work.

3 A. Okay. And so would this just be specific to my
4 position or the district at large including the others on
5 duty?

6 Q. Let's include the other on-duty folks.

7 A. Okay. Generally our office opens at 7:30 in the
8 morning and staff -- either myself or we also have three
9 rotating on-duty inspectors. They're compliance
10 specialist.

11 The first thing we do is take a look at the air
12 quality data which is available on a publically
13 accessible website. We have several air monitoring
14 stations throughout Butte County and also other locations
15 in California.

16 Five monitoring stations are operated by the
17 state air quality agency through the California Air
18 Resources Board. We will take a look at their data and
19 we will assess if it's -- you know, if it's good air
20 quality, if it's moderate air quality.

21 Our goal for that morning is to create an air
22 quality forecast for that day as well as anticipate the
23 air quality for the next day based on conditions, based
24 on current air quality as well as meteorological
25 conditions, if there's any storms coming in, or also
26 based on any other factors such as existing wildfires.

1 [Exhibit 1359 introduced
2 as evidence.]

3 BY MS. DUPRE-TOKOS:

4 Q. Okay. I'm going to jump in. You mentioned
5 based on the air quality.

6 And you should have 1359 in front of you and
7 also up on the board. Can you tell us what that is.

8 A. Okay. So these air monitoring stations, they
9 are measuring the mass of the particulates in the air.
10 Specifically for particulates it's broken up into
11 different sizes. And the one that we are most concerned
12 with is called PM2.5. These are particulates less than
13 2.5 microns in size. And with these particulates these
14 air monitoring stations measure it in micrograms per
15 cubic meter.

16 At the national level the US EPA has developed
17 an air quality index to make it a more manageable zero to
18 50, 50 to 100, et cetera, scale for public outreach
19 purposes. So this breaks out --

20 Q. We're going to try and enlarge it and then you
21 can point at things.

22 A. So what this is demonstrating is that from
23 zero -- right here (indicating). So from zero to 12
24 micrograms per cubic meter, that will equate zero --

25 Q. And you can stand up.

26 A. Okay. That will -- from zero to 50 AQI, that is

1 our good range. We'd advertise good air quality.
2 Usually green is the color associated with good air
3 quality.

4 So zero to 50 on this AQI scale, it's kind of a
5 unitless scale for public outreach purposes. But as a --
6 for a specific measure of mass, that equates zero to 12
7 micrograms per cubic meter and so forth.

8 For moderate we have 12 to 35. The federal
9 standard per PM2.5 as a 24-hour average is 35 micrograms
10 per cubic meter. That's the level at which the EPA sets
11 standards to be protective for health specifically for
12 the most sensitive population including children, the
13 elderly, and those with pre-existing conditions.

14 And so that's why at 35 the AQI scale goes from
15 moderate to unhealthy for sensitive groups as a 24-hour
16 average.

17 And then we have further AQI break points for
18 unhealthy, very unhealthy, and then hazardous. And so if
19 a 24-hour average is over 50 micrograms per cubic meters,
20 that's when we'd advertise hazardous conditions for the
21 AQI scale.

22 Q. And it has a high break point of 360.4, but it
23 can go higher than that; correct?

24 A. Correct, yes.

25 Q. Okay. So I had interrupted you. You said that
26 you or whoever is the person on duty that day, the first

1 thing they do is look at the air quality readings;
2 correct?

3 A. Yes.

4 Q. Okay. And then what?

5 A. And then we also make a burn day determination.
6 And that's also based on the air quality. We have -- we
7 have processes. If air quality is at a certain level, we
8 may call a no burn day. Also we receive communication
9 from Cal Fire. If there's heavy -- if there's strong
10 winds, even if air quality is good, we may still call a
11 no burn day if Cal Fire requests that. And we have a
12 burn day determination for agriculture and for
13 residential burning.

14 Q. And just out of curiosity, in Butte County you
15 need a burn permit; is that correct?

16 A. For agriculture burning you do need a burn
17 permit. During critical -- during the summer months
18 there's usually a burn ban so there's no burning. On the
19 shoulder months residential burning sometimes requires a
20 permit from Cal Fire.

21 Q. Okay.

22 A. So we don't require residential burn permits.

23 Q. Okay. Now, you said that you have monitors
24 around the county?

25 A. Correct.

26 Q. And so is that just Butte County has the

1 monitors or do any of the state or federal agencies have
2 monitors? And let's focus on just up to November 8,
3 2018, because I'm sure that some may have been installed
4 since.

5 A. Okay. So there are three permanent particulate
6 monitoring stations in Butte County. All three are
7 operated by the State California Air Resources Board.
8 And we can look at the data. However, we're not in
9 charge of the maintenance or the operation of those
10 monitors. We just take a look at the data that's
11 developed by them.

12 We do have a portable air monitoring station
13 that we can deploy. It does have satellite telemetry,
14 and we did deploy it during November 8th.

15 We also have smaller air quality sensors which
16 are -- which we deployed around the county. These are
17 smaller. They're low-cost sensors, and they're more just
18 for public information.

19 Q. Where are the three dedicated monitors?

20 A. We have one in Chico off of East Avenue next to
21 McManus Elementary School. And that is our PM2.5 monitor
22 for record meaning that it is calibrated. And it's
23 co-located with several particulate monitors. So that is
24 the official monitoring station for this planning area.

25 And so this is the data that would be sent to
26 the EPA to determine if we are in attainment with the

1 state or the National Ambient Air Quality Standards.

2 Q. And attainment means compliant?

3 A. Correct.

4 We also have a stationary PM2.5 monitoring
5 station in Gridley as well as in Paradise on top of the
6 theatre.

7 Q. Okay. So once you get the air quality data, you
8 put out the air quality forecast for the day and the next
9 day you said based on conditions?

10 A. Correct.

11 Q. So is that what you did on November 8, 2018?

12 A. Yes.

13 Q. About what time do you normally get the readings
14 or get the forecast out?

15 A. So just to clarify, the initial air quality
16 forecast was sent out by our on-duty inspector for that
17 day. It was Ursula Parker in this case. So I did not
18 physically send out the forecast for that day. However,
19 I was evaluating air quality.

20 Q. Okay. And about what time was it sent out -- or
21 is it normally sent out by a certain time?

22 A. Our goal is to send it out generally around
23 before 10 o'clock, but in practice it is generally
24 published before 8:45 because our burn day determination
25 is usually out by 8:45.

26 Q. So on November 8, 2018, did you put out --

1 Well, before we go there, do you keep track of
2 all of the -- the PM2.5 readings over time?

3 A. Yes. We do track them and we do report to our
4 board. We have semiannual reports to our board on air
5 quality. We also create an annual air quality report
6 where we take a look at the air quality over the last
7 year. And we do look at trends to see if air quality in
8 general is improving or deteriorating over time.

9 Q. And does CARB either generate or keep track of
10 readings on a weekly basis at all?

11 A. The data from the air monitoring stations are
12 available on a publicly-accessible website.

13 Q. Is that iADAM?

14 A. The acronym is AQMIS. That's all the hourly
15 data as well as daily data as well as special reports
16 that the user can request are available through AQMIS.
17 Once the data becomes official, there's another website
18 for California's official air quality data, and that is
19 referred to iADAM.

20 Q. When does data become official?

21 A. Data is certified, and normally there's a
22 deadline. I believe it's May 1st. There's a deadline
23 for air quality data certified official by the reporting
24 agency.

25 So in this case it would be the California Air
26 Resources Board declaring their data official to the U.S.

1 EPA. And from what I'm familiar with that is basically
2 the process of saying: This is the data that we intend
3 to submit to you. So this is -- that's their process of
4 certifying the data. It's already gone through a quality
5 control process.

6 [Exhibit 1360 introduced
7 as evidence.]

8 BY MS. DUPRE-TOKOS:

9 Q. Okay. You should have Exhibit 1360 in front of
10 you and it's up on the board. And that's the weekly
11 listing state 24-hour PM2.5 averages. Is that correct?

12 A. Correct.

13 Q. Okay. And it looks like it shows the Chico East
14 Avenue monitor; is that right?

15 A. Yes.

16 Q. And it looks like they start the week on the
17 Sunday. So for Sunday, November 4th they had readings
18 for Sunday, Monday, Tuesday, Wednesday, and Thursday.
19 And then Friday there is no reading. There's an astrict
20 for Friday, Saturday, and then the following Sunday,
21 Monday, and Tuesday. Why is that?

22 A. The -- I do not know the exact reason, but it's
23 likely it did not meet the quality control measures or
24 the completeness measures that the California Air
25 Resources Board set for their monitoring for that
26 particular monitor.

1 Q. Now, the Chico monitoring station actually got
2 overwhelmed and overloaded November 8th for several days,
3 didn't it?

4 A. That's likely what happened.

5 Q. Okay. But it's your understanding that it did
6 get overwhelmed or overloaded?

7 A. It's my understanding that the volume of smoke
8 impacted the quality control results.

9 Q. Okay. So Thursday, which was November 8th, it
10 shows a reading of 6.6. That seems a little odd given
11 the huge fire. Why would it be as low as 6.6?

12 A. On the very first day of the Camp Fire it was --
13 meteorologically it was very -- it was bizarre in that --
14 as far as air quality, conditions were good on the valley
15 floor on that first day because of the winds as well as
16 the inversion that was in place at the time. Smoke went
17 over the valley floor.

18 It did impact, of course, areas immediately
19 adjacent to the fire, but it did go over the Sacramento
20 Valley leaving conditions in the good range for most
21 Sacramento Valley locations on the first day. It did
22 impact other communities; Mendocino County, Lake County,
23 the Bay Area, et cetera. However, for the first day we
24 did have good air quality in Chico on November 8th
25 because we were underneath the cloud deck or the smoke
26 deck.

Q. Okay. And then just looking at this real quick, looking at the Wednesday and Thursday where it looks like the readings are back up and actually the next Friday, they're, you know, 197, 299.9, 411.7. So those are drastically higher than the 6.6 we had the day of November 8th.

A. Correct.

MS. DUPRE-TOKOS: Okay. Marc, do you want to jump forward.

[Exhibit 1361 introduced
as evidence.]

BY MS. DUPRE-TOKOS:

Q. So then you should have 1361 in front of you.
And this is what?

A. This is a -- just a printout of our website that we publish daily. On a daily basis we up -- when we do our morning air quality forecast, we will send out an e-mail to the media and other interested parties. We also update our AQI on our website. And this is for a 24-hour average. We also put any other information for the public in our news and information section with links to current air quality data, any advisories, or any other information for the public.

Q. So in this case this is the website from November 8, 2018; correct?

A. Correct.

1 Q. Okay. And under current news and information it
2 says "Smoke from the Camp Fire near Paradise and Concow
3 will impact areas near and downwind of the fire.
4 Residents near the fire should heed evacuation orders
5 from local officials." And then you give the link for
6 updates.

7 "Those in a safe location still being impacted
8 by smoke should take action to reduce their exposure.
9 Inside a building close all windows and doors and use the
10 recirculate setting if available. If driving through
11 smoke-impacted areas, keep windows closed and run the air
12 conditioner on recirculate."

13 Did I read that correctly?

14 A. Yes.

15 Q. And that's what you were talking about. You
16 give tips and guidance. Is that correct?

17 A. Correct.

18 Q. And then looking over at today's air quality,
19 again Chico is good. Paradise is unhealthy. Gridley is
20 good. Is that accurate?

21 A. That was our forecast that morning, correct.

22 Q. And again, the categories are the ones that you
23 just talked about with the different levels on
24 Exhibit 1359 with the break points?

25 A. Correct.

26 Q. You're still following those categories and

1 those limits; correct?

2 A. Yes.

3 [Exhibit 1362 introduced
4 as evidence.]

5 BY MS. DUPRE-TOKOS:

6 Q. And then 1362 should be the December 6, 2018,
7 Biannual Air Quality Report. Is that correct?

8 A. Yes.

9 Q. Okay. And that is one of the reports you just
10 were telling us you'd given to the board?

11 A. Yes.

12 Q. Okay. And then if you look at page 32 of 44 we
13 have -- at the top we have a chart. The highest 24
14 average per year of PM2.5; is that correct?

15 A. Yes.

16 Q. And then it looks like Chico is in blue, Gridley
17 is in green, and Paradise is in orange; is that right?

18 A. Yes.

19 Q. And it goes -- on the left axis it's micrograms
20 per cubic meter and on the bottom axis is years?

21 A. Yes.

22 Q. So 2008 looks like Paradise was all the way up
23 to 350 for the PM2.5. Is that accurate?

24 A. Yes, at the 24-hour average.

25 Q. Okay. Why was it so high in 2008?

26 A. In 2008 Butte County had the Humboldt Fire as

1 well as the Butte Lighting Complex Fires. There were
2 also wildfires all around Northern California that
3 summer. And so it was wildfire impacts.

4 Q. Okay. And then in 2018 Chico is up above 400,
5 Gridley is a little over 250, but Paradise is just
6 slightly above -- it looks like 50 or maybe that's 75.

7 Why is that?

8 A. The Paradise air monitoring station went down
9 very early on the 8th. It lost power, and it remained
10 down for the duration of the Camp Fire. So it did not --
11 we did not have measurements at that monitoring station.
12 The last data point read in the 200s and then the power
13 went off.

14 Q. And 200s. That's in the hazardous range?

15 A. It was in the low 200s. So that hourly reading
16 would have -- for a 24-hour average would have been in
17 the very unhealthy range.

18 Q. Okay.

19 A. But that was just -- that was right before it
20 went offline.

21 Q. And then what is the table below, the chart we
22 were looking at?

23 A. So this is after the fire based on preliminary
24 air quality data. We categorized how many days -- and
25 this is at a 24-hour average how many days each
26 monitoring location spent in each air quality index

1 category.

2 For example, for the hazardous air quality --
3 for the hazardous AQI there were three days in Chico
4 where the 24-hour average was in the hazardous range.
5 Two days in Gridley. Again, unfortunately Paradise
6 monitoring station was offline so we didn't have data for
7 that.

8 And we did have portable monitoring stations
9 that we brought in. We deployed one at Tuscan Ridge
10 which is going up on the Skyway halfway up to Paradise,
11 one in Palermo, and also one at Butte College. So this
12 shows the number of days that location spent in each AQI
13 category.

14 Q. And that is November 8th or November 22nd;
15 correct?

16 A. Correct.

17 Q. Of 2018.

18 Okay. And I'm still on Exhibit 1362. Can you
19 tell us what we're looking at here.

20 A. This is a product of U.S. Forest Service. And
21 they have -- they were able to bring in some air quality
22 data analysis tools during the fire. And so we have the
23 various air monitoring stations, the Chico monitoring
24 station.

25 This is the Tuscan Ridge location where we
26 brought in a portable air monitor. You can see the date,

1 the time that we brought it in. Or the date we brought
2 it in. Gridley, which is a permanent air monitoring
3 station, and then our two other portable locations; Butte
4 College and then Palermo.

5 The small lines are hourly values. And so this
6 is showing hourly values. You know, a lot of them
7 fluctuated during the day. And then the wider bars at
8 the bottom is a 24-hour average.

9 Q. So looking at the Tuscan Ridge one, at some
10 point it was over 1500?

11 A. Correct.

12 Q. Micrograms?

13 A. For hourly readings, correct.

14 Q. But the average was about 1,000?

15 A. Yes, the 24-hour average.

16 Q. And then the colors also tell us what range
17 they're in. So most of these are in the hazardous range;
18 is that --

19 A. Right. The maroon color would be hazardous.

20 Q. And then also in 1362 this is page 35 of 44.
21 What are we looking at here?

22 A. So this is just a zoomed-in chart of the same
23 chart that you just saw but just specific to our two
24 stationary monitoring stations in Gridley and Chico. And
25 so this is showing the same information, the hourly
26 values. And here are the dates of the fire and then the

1 24-hour averages are represented by the solid bars.

2 [Exhibit 1363 introduced
3 as evidence.]

4 BY MS. DUPRE-TOKOS:

5 Q. And then Exhibit 1363, which is from the Annual
6 Air Quality report dated 4/18/19.

7 So this looks to be a map of Butte County; is
8 that correct?

9 A. Correct.

10 MS. DUPRE-TOKOS: Kind of hard to see, Marc.
11 Can you blow that up a little so we can see the circles.

12 BY MS. DUPRE-TOKOS:

13 Q. So what are the circles that we see on the map?

14 A. These are the stationary air monitoring
15 locations in our county. All four of these are operated
16 by the California Air Resources Board.

17 This is the location of the Chico East Avenue
18 monitoring station, the Gridley monitoring station. And
19 we have this one up here near the theatre was our PM2.5,
20 our particulate monitoring station. And th fourth
21 station here at the Paradise Airport which only measures
22 for ozone which is a summertime smog pollutant that we
23 monitor.

24 Q. And then looking at page 7 of 1363, can you tell
25 us what that is.

26 A. This is a summary of our 24-hour average PM2.5

1 measurements for Chico, Paradise, and Gridley throughout
2 2018. And it does show -- we did have smoke impact that
3 summer too from the Car Fire and the Mendocino Complex
4 Fires. And this shows a comparison to the smoke impacts
5 that we received during that fire episode where we did
6 get into the unhealthy range in Chico and then it showed
7 the comparison with the Camp Fire.

8 Q. And so -- and this shows Chico, Paradise, and
9 Gridley depending on the color of the line; correct?

10 A. Correct.

11 Q. Okay. And then page 8 of 1363. What are -- it
12 says at the top "Average PM10 measurements." What are
13 PM10 measurements?

14 A. Generally, for smoke we're measuring PM2.5, and
15 these are microns that are less than 2.5 microns in size.
16 They're extremely small. And they can bypass or violate
17 bodily defenses and penetrate deeper in the lungs which
18 is why we're concerned about them.

19 Somewhat larger particulates PM10 are also known
20 as course particulates. These are slightly larger
21 particulates. They still can be -- especially at high
22 volume. High levels can also be a respiratory issue.
23 However, these are the 2.5 to 10 microns.

24 Normally, this is -- we're talking about dust or
25 slightly larger particulates. However, with the Camp
26 Fire we did have extremely high levels of PM10 as well as

1 PM2.5. So there are very small particles, but there are
2 also slightly larger particles measured.

3 Q. And they follow the same categories of good,
4 moderate, unhealthy for sensitive groups all the way up
5 to hazardous; is that correct?

6 A. Yes. There is an AQI range for PM10. The
7 breakpoints are different from the 2.5, but there are AQI
8 categories for PM10.

9 Q. And then looking at the charts then it looks
10 like even the PM10 at least at one point was touching
11 into the hazardous range?

12 A. Yes.

13 Q. Okay. Otherwise it was in the unhealthy or very
14 unhealthy range for the most part?

15 A. Yes.

16 Q. Okay. Now, you just touched on it a little.
17 I'm going to ask you this. Why do we care about tracking
18 particulate matters especially the smaller particulates?
19 Why do we care?

20 A. The smaller particulates can penetrate, like I
21 said, you know, beyond mucous membranes in your nose and
22 beyond your natural defenses and penetrate deep into the
23 lungs and --

24 Q. Does that cause breathing problems?

25 A. It can exacerbate breathing problems for those
26 with respiratory issues such as asthma and COPD and also

those with cardiovascular disease. It does also -- each particulate are so small that it can interfere with the blood oxygen interface. So those that would -- have cardiovascular issues can also be susceptible to poor air quality conditions.

Q. And so the blood not getting oxygen, then that can cause all sorts of health conditions. Heart attacks, stroke, whatever. Is that your understanding?

A. It's my understanding. I'm not a medical official though.

Q. But that's your understanding as to why you're caring about this and why you're tracking it?

A. Yes.

Q. Okay. And when you're up in the hazardous range, that's also true even for healthy people; isn't that correct? That's why it's no longer just unhealthy for sensitive groups. It's all the way up in the hazardous because it's dangerous to everyone. Is that correct?

A. Yes. At the very least it could create irritation, but it could also be difficult -- make breathing difficult and exacerbate asthma and make it hard to breath.

q. If you can't breath, can you live?

A. You can't live if you can't breath.

[Exhibit 1364 introduced

as evidence.]

BY MS. DUPRE-TOKOS:

Q. So going on to Exhibit 1364, and we have several pages of this. What is Exhibit 1364?

A. This is a report developed by an air resources advisor from the United States Forest Service. These area resource advisors are deployed to large wildfires, primarily those fires on federal lands.

And so on the 13th -- I'm sorry. On the 15th an area was assigned to the Camp Fire and began to develop these air quality snapshots for not just Chico but for the surrounding region. And it included a discussion of the fire activity, the smoke that would be generated by that fire activity as well as current conditions, yesterday's air quality conditions, and an outlook for today for the current forecast date and then for tomorrow based on fire and meteorological conditions.

Q. And then down at the bottom it says "Air Quality Index AQI" and then "Actions to protect yourself."

And for green, which is good, it says "None." For moderate it says "Unusually sensitive individuals should consider limiting prolonged or heavy exertion for USG," which I'm assuming is unhealthy for sensitive groups.

A. Correct.

Q. It says "People within sensitive groups should

1 reduce prolonged or heavy outdoor exertion."

2 Under "Unhealthy: People within sensitive
3 groups should avoid all physical outdoor activity, very
4 unhealthy. Everyone should avoid prolonged or heavy
5 exertion." And then "Hazardous" it says "Everyone should
6 avoid any outdoor activity."

7 Did I read that correctly?

8 A. Correct.

9 Q. Okay. And so this first one that we're looking
10 at is for Thursday, November 15th; is that right?

11 A. Correct.

12 Q. And then the next slide is for Sunday,
13 November 18th; is that correct?

14 A. Yes.

15 Q. And it looks like Chico, Palermo, and Yuba City
16 are all still in the hazardous areas judging by the color
17 of the dot by the city?

18 A. Yes.

19 Q. And then going to the next slide that's for
20 Monday, November 19th. And it looks like things have
21 improved a little. It looks like Chico, Palermo, and
22 Yuba City are in the unhealthy range?

23 A. Yes.

24 Q. And it looks like there's a forecast for them to
25 go to -- either remain unhealthy or go to unhealthy for
26 sensitive groups?

1 than up in Paradise?

2 A. I do not know for certain.

3 Q. Okay. Why was this put out?

4 A. This was put out to give guidance to schools on
5 ways that they could track air quality, provide resources
6 on how to have a better idea of what air quality is there
7 in their community as well as giving the breakpoints for
8 the different air quality categories and also breaking it
9 out based on different activities such as PE, recess,
10 scheduled outdoor sporting events. And this was provided
11 to give guidance.

12 Q. And was this actually given to the schools?

13 A. This was given to schools through the Butte
14 County Office of Education once it was developed. And it
15 was published on our website.

16 Q. And it looks like it's dated 11/13/18.

17 A. Yes.

18 Q. Okay. And so just so I can make sure I
19 understand it, so looking at hazardous -- because that's
20 at the very far end and it's easy to follow -- it gives
21 the AQI of 301 or higher; correct?

22 A. Yes.

23 Q. And then it includes -- on all of these it
24 includes viability. And why was visibility included?

25 A. This is a general scale developed by the US EPA
26 when developing their AQI scale as kind of a yardstick to

1 gauge what air quality is based upon visibility. It's an
2 estimate. But for those that are not near an air quality
3 monitoring station, it's a way to provide an estimate on
4 what air quality may be, what the values may be.

5 Q. So if you can't get to a computer to pull up the
6 readings, if you can't see, you know, more than a mile in
7 front of you, you can take an educated guess that your
8 air quality is probably hazardous?

9 A. That's the guidance.

10 Q. And we're not talking fog? We're talking other
11 things other than fog?

12 A. Correct.

13 Q. Okay. And then going down it says "Recess. A
14 15-minute recess." It says under hazardous "Keep
15 students indoors and activity levels light."

16 So they're even recommending the indoors so that
17 there's not a lot of exertion. Am I understanding that?

18 A. Yes.

19 Q. Okay. For PE it's the same. "Keep students
20 indoors and activity levels light."

21 And then scheduled outdoor sporting events and
22 practices it says "Consider cancelling or rescheduling
23 the event." Is that correct?

24 A. Yes.

25 MS. DUPRE-TOKOS: Okay. Do you have any
26 questions?

1 MR. NOEL: Yeah, I got a couple.

2 MS. DUPRE-TOKOS: Okay. I think that's all I
3 have, but Marc has a few questions and then the jurors
4 may have some questions for you.

5 THE WITNESS: Okay.

6 MR. NOEL: Yep. I'm just going to go back and
7 follow up on a few things.

8 **EXAMINATION**

9 BY MR. NOEL:

10 Q. Going back to 1358 and your credentials, it says
11 "Qualified Environmental Professional."

12 A. Yes.

13 Q. What is a qualified environmental professional?

14 A. It is a -- this is a credential developed by the
15 Professional Environmental Practice. It is -- it was a
16 tested credential that bases your experience in the
17 field, your education, knowledge of a variety of air
18 quality topics as well as an emphasis on being an
19 ethnical professional.

20 Q. Okay. What is the Institute of Professional
21 Environmental Practice?

22 A. They are an international credentialing agency.
23 They're now part of the -- I believe it's the
24 Environmental Industrial Health. They have since merged
25 with another institute, but they credential environmental
26 professionals in air quality, water quality as well as

1 solid waste.

2 Q. Is there an educational component of the
3 institute?

4 A. Yes. I believe that they require a scientific
5 degree.

6 Q. Okay. Do they do any training themselves?

7 A. They do do trainings. I have not participated
8 in training through them.

9 Q. How do you get qualified certificated by the
10 institute?

11 A. This process happened in 2013. So I'm a little
12 foggy on some of the exact -- there is an application
13 process. There's an in-person interview process as well
14 as a testing process.

15 Q. Okay. And you are certificated by the Institute
16 of Professional Environmental Practice?

17 A. Yes.

18 Q. All right. What's the connection between being
19 an educationally-trained meteorologist and a qualified
20 environmental professional?

21 A. Being able to -- the background in meteorology
22 and environmental science, you know, an emphasis on data,
23 an emphasis on data quality, and understanding what the
24 data means and being able to present the data clearly so
25 that it means something so that the units are explained
26 and any graphic or charts that are produced based on that

1 data mean what they're supposed to mean.

2 **EXAMINATION**

3 BY MS. DUPRE-TOKOS:

4 Q. And I'm going to jump in real quick. Your
5 meteorology background, does that help you in your air
6 quality forecasting? Because you said you look at
7 weather conditions and things like that when you're
8 talking about potential air quality for the following
9 day.

10 A. Yes, it does. Air quality is very
11 meteorologically driven with wind speed and direction, if
12 there's an inversion, if there's a storm incoming.
13 There's a lot of meteorological factors when it comes to
14 wildfire smoke and air quality in general.

15 **EXAMINATION**

16 BY MR. NOEL:

17 Q. All right. A couple of things. We talked a lot
18 about it, but I didn't catch the -- it was never defined.
19 Can you tell us what a particulate actually is.

20 A. It could be any sort of substance. It's often
21 solid, but sometimes it could even be liquid. It could
22 be any particulate. We're just measuring the mass of any
23 particulates.

24 There are -- the state does have a method of
25 speciating or figuring out what are in the particles or
26 what is the particle made out of. But for our purposes

1 we really get the math of the total particulates. And it
2 could have been moisture. It could have been liquid
3 particulates. It could be solid particulates from
4 combustion. So what the particulate is it could be
5 different. It could be solid or liquid.

6 Q. Okay. So how do you define -- how does
7 something become a particulate or is defined as a
8 particulate?

9 A. If it has mass.

10 Q. If it has mass?

11 A. If it has mass that is measurable upon
12 filtering.

13 Q. To a certain degree or to a certain weight?

14 A. So these air monitoring stations, they take in
15 air and they have -- they have hardware that will knock
16 out any particulates over 10 microns in size. And then
17 they have another cyclone that will knock out any
18 particulates larger than 2.5 microns in size. They have
19 a heater that will evaporate moisture so that fog or
20 other moistures are not a factor, and it will deposit
21 those.

22 For our federal reference method monitor -- that
23 is the monitor that the EPA uses to assess our
24 attainments -- they will deposit the particulate upon a
25 filter. They will dry the filter and weigh the filter
26 before they -- well, first, they weigh the filter before

1 it goes into the cartridge. They deposit the
2 particulates. And these particulates will measure mass
3 and then they will weigh it after they deposit the
4 particulates on the filter.

5 And so what they're measuring is the weight of
6 the particulates that were deposited upon this filter for
7 a 24-hour period.

8 **EXAMINATION**

9 BY MS. DUPRE-TOKOS:

10 Q. So is a particulate basically just any small
11 piece of something --

12 A. Yes.

13 Q. -- that you can weigh?

14 A. Yes.

15 Q. Okay. So it can be, you know, little pieces of
16 wood, little pieces of chemicals? It could be little
17 pieces of anything. Leaves or whatever.

18 A. Yes.

19 MS. DUPRE-TOKOS: Okay.

20 **EXAMINATION**

21 BY MR. NOEL:

22 Q. All right. Some more terms that you used.
23 Microns. Can you define for us what a micron is.

24 A. It is -- so we have a -- a micron is very --
25 there's a -- it is very -- I would think the best way to
26 think about it is PM10. So ten microns in size. They --

1 you can line up about six or so of those across the human
2 hair. And then the PM2.5 you can -- you can do about --
3 about four of those across the length of what some of
4 those PM10 particles are. So they're much smaller than
5 even the width of a human hair.

6 A micron would be about a scale of 1,000 less
7 than a millimeter or -- yeah, a millimeter. So you have
8 1,000 millimeters --

9 I'm doing math.

10 MS. DUPRE-TOKOS: So 001 -- or 0001 of a
11 millimeter?

12 THE WITNESS: Yes. Whereas a millimeter would
13 be with .001 of a meter.

14 BY MR. NOEL:

15 Q. So in layman's terms it's a really, really small
16 increment of measurement?

17 A. Yes.

18 Q. All right. And you'd also used a term
19 "micrograms per cubic meter." If you could explain that
20 for us.

21 A. Okay. So that would be also a unit of very
22 small weight measure. Also .001 grams. So it's a mass
23 per a meter cubed. So if you had one meter by one meter
24 by one meter, what would be the weight of the
25 particulates in that cubic meter?

26 Q. All right. We have 1360 here back in front of

1 you, specifically we talked a lot about what these things
2 mean in terms of hazardous. But what actually do these
3 scores represent? Like 197, 299, 411. What does that
4 score mean or how do you get that score?

5 A. That's the 24-hour average of the -- in
6 micrograms per cubic feet measured.

7 Q. Okay. All right. So, for instance, on Friday,
8 November 16th there were 411.7 micrograms per cubic meter
9 of PM2.5 particulate?

10 A. Yes.

11 Q. Is that correct?

12 Okay. On 1361 it keeps using this term
13 "recirculate."

14 "Inside a building close all the windows and use
15 the recirculate setting. Air conditioning on
16 recirculate."

17 What does it mean to recirculate and why would
18 that be advisable?

19 A. You don't want to draw air from the outside. If
20 it's hazardous or poor air quality outside, you don't
21 want to draw any air from the outside.

22 In vehicles, you know, you have the air
23 conditioning button and the arrows going like that
24 (indicating). Instead of drawing in fresh air, you're
25 just recirculating the air inside of your cabin through
26 your air filter.

1 And so basically the message is don't draw any
2 air from the outside if you can help it.

3 **EXAMINATION**

4 BY MS. DUPRE-TOKOS:

5 Q. I'm going to interrupt. Looking at 1361, is
6 that a picture from your office down at the bottom of the
7 page?

8 A. That's from our -- we have a webcam at Butte
9 College.

10 Q. Okay.

11 A. That was from Butte College.

12 Q. Taken on November 8th?

13 A. Yes.

14 **EXAMINATION**

15 BY MR. NOEL:

16 Q. All right. And on to 1362 on the chart here on
17 the top. And I just want to -- I know we talked a lot
18 about 2008 and that the spikes were the Humboldt Fire and
19 the Lighting Complex Fires.

20 The spikes in 2018, the highest 24-hour averages
21 for the year, are those the Camp Fire?

22 A. Yes.

23 Q. Okay. I think we skipped over that earlier.
24 You started going there and then didn't finish it.

25 MS. DUPRE-TOKOS: Because I interrupted.

26 MR. NOEL: And I think --

1 **EXAMINATION**

2 BY MS. DUPRE-TOKOS:

3 Q. And would that be true for all of the spikes for
4 2018 in the different graphs? Not just this graph but,
5 for example, and -- well, the ones in 1363 as well as the
6 table in 1362, the big spikes for 2018 were based on the
7 Camp Fire?

8 A. Yes. There were some impacts in the summer from
9 the Carr and Mendocino Complex Fires. I can show you.
10 You can see the scale of magnitude between those two
11 different impacts.

12 **EXAMINATION**

13 BY MR. NOEL:

14 Q. You ever testify before?

15 A. I have not.

16 Q. How nervous were you when you came in here this
17 morning?

18 A. I'd say three out of ten.

19 **EXAMINATION**

20 BY MS. DUPRE-TOKOS:

21 Q. Very good. How nervous are you now?

22 A. Four out of ten.

23 MS. DUPRE-TOKOS: Are there any questions from
24 the jurors?

25 GRAND JUROR NUMBER FOUR: By the way, a micron
26 is one one-millionth of a meter.

1 THE WITNESS: One one-millionth. I'll remember
2 that so I can give a much better answer than I gave
3 before. Thank you.

4 MR. NOEL: We have some questions from the
5 jurors that Jennifer is going to read you.

6 Remember, if you don't know the answer or if
7 it's outside of your expertise, just let us know.

8 THE WITNESS: Okay.

9 MS. DUPRE-TOKOS: "Can the particles that are
10 breathed into the lungs may cause problems over a long
11 period of time?"

12 THE WITNESS: That would be best for a medical
13 professional. Guidances that I have read says yes, but
14 that's best for a medical professional.

15 MS. DUPRE-TOKOS: And then "Do the particles
16 stay in the lungs?"

17 THE WITNESS: That again is best for a
18 professional, a medical professional.

19 MS. DUPRE-TOKOS: Any other questions?

20 MR. NOEL: Any follow up?

21 MS. DUPRE-TOKOS: All right. You just need to
22 get an admonition from madam foreperson and you survived.

23 THE WITNESS: Thank you.

24 MS. DUPRE-TOKOS: Hang on one second.

25 GRAND JURY FOREPERSON: Mr. Mandly, you are
26 admonished not to discuss or disclose at any time outside

1 of this jury room the questions that have been asked of
2 you or your answers until authorized by this grand jury
3 or the Court. A violation of these instructions on your
4 part may be the basis for a charge against you of
5 contempt of court. This does not preclude you from
6 discussing your legal rights with your own attorney.

7 Mr. Mandly, what I have just said is a warning
8 not to discuss this case with anyone except the Court,
9 your lawyer, or the district attorney.

10 Do you have any questions?

11 THE WITNESS: I don't.

12 GRAND JURY FOREPERSON: Okay. Thank you for
13 your time today.

14 THE WITNESS: Okay. Thank you.

15 [Witness exits the courtroom.]

16
17 [DISCUSSION OMITTED.]

18
19 [Recess taken from
20 10:05 until 10:52 a.m.]

21
22 [DISCUSSION OMITTED.]

23
24 [Matter adjourned at 12:00 p.m.]

25 --oOo--
26

COURT REPORTER'S CERTIFICATE

This is to certify that I, Lisa McDermid Welch, a Certified Shorthand Reporter of the State of California, was present at the time and place the foregoing grand jury proceedings were had and taken in the within matter; and that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings; and afterwards caused my said shorthand writing to be transcribed into typewriting; and the foregoing pages, beginning at the top of Page 1 to and including Page 43 hereof, constitute a full, true, accurate, and complete record of the proceedings.

DATED: This 6th day of June, 2022.

[Lisa McDermid Welch](#)

LISA MCDERMID WELCH, CSR, RPR
CSR LICENSE NO. 10928

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

BCSC-2019-GJ-01

REDACTED
**CERTIFIED
COPY**

_____/

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

FRIDAY, MARCH 6, 2020

VOLUME 44

OROVILLE, BUTTE COUNTY, CALIFORNIA

JENNIFER L. HUNT, CSR 10735, OFFICIAL COURT REPORTER

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APPEARANCES:

FOR THE BUTTE COUNTY

DISTRICT ATTORNEY'S OFFICE:

(Present) Michael L. Ramsey, District Attorney

(Present) Marc Noel, DDA

(Present) Jennifer Dupre-Tokos, DDA

25 County Center Drive

Oroville, California 95965

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OROVILLE, BUTTE COUNTY, CALIFORNIA

FRIDAY, MARCH 6, 2020

8:30 a.m.

(Confidential Grand Jury Proceedings)

-oOo-

[ROLL CALL OMITTED.]

[DISCUSSION OMITTED.]

(Grand Jury Exhibit 1377 was admitted into evidence.)

[DISCUSSION OMITTED.]

GRAND JURY FOREPERSON: To Captain Carothers,
if you would raise your right hand to be sworn, please.

CHAD CAROTHERS
having been called as a witness in
the matter now pending, having been first
duly sworn, testifies as follows:

THE WITNESS: Yes, I do.

GRAND JURY FOREPERSON: Thank you.

EXAMINATION

BY MS. DUPRE-TOKOS

1 Q. Could you please state your full name and spell
2 your last name.

3 A. Do I need to talk into this thing?

4 MR. RAMSEY: Just use your --

5 THE WITNESS: My full name is Chad Joshua
6 Carothers, C-H-A-D J-O-S-H-U-A C-A-R-O-T-H-E-R-S.

7 Q. (By MS. DUPRE-TOKOS) And are you employed?

8 A. Yeah, currently I work for Cal Fire as a fire
9 captain.

10 Q. And where are you currently assigned?

11 A. My current assignment right now is at the
12 Sacramento Command Center in Sacramento.

13 Q. Were you employed by Cal Fire on November 8th,
14 2018?

15 A. Yes, I was.

16 Q. And where were you assigned at that point?

17 A. At that time, I was assigned to Delta Camp,
18 running inmate hand crews for Cal Fire.

19 Q. And how long have you been a firefighter?

20 A. I started back in 2001 working for Cal Fire;
21 5/14 of 2001. My actual time on the books, because I was
22 seasonal for six years, I think right now I'm sitting at
23 17 or 18 years, but I've been in the fire service since
24 2001.

25 Q. All right. So you didn't have any fire service
26 experience prior to joining Cal fire?

1 A. The only thing I had was as a volunteer for
2 Shasta County Fire Department in Jones Valley. And I did
3 that for, oh, man, from 2000 until -- 2000 -- until I got
4 hired. And then whenever I was off in the winters, I
5 would go back and volunteer for I think four -- three or
6 four years. So I had a little bit.

7 Q. Now, do you have any medical training?

8 A. Yeah. I'm an EMT. I've been an EMT since
9 2000. Yeah.

10 Q. And you've kept your certifications up all this
11 time?

12 A. Yes.

13 Q. Where is Delta Camp?

14 A. So Delta Camp is 20 miles south of Dixon along
15 the 80. It's essentially out in the Delta, the San
16 Francisco kind of Delta that goes in there.

17 Q. What were your assignments prior to working at
18 Delta Camp?

19 A. So when I first started in 2001, I worked as a
20 Firefighter 1, a seasonal for Cal Fire out of Whitmore
21 Forest Fire Station. And that was my 2001-2002 fire
22 seasons.

23 Then in 2003, I got a, I guess kind of a
24 transfer, and I worked at Vina Helitack, which is just
25 north of Chico I think 10, 15 miles. And that was 2003,
26 2004, 2005. And at Vina, the only thing we did was go to

1 wildland fires and do rescues. That was it.

2 After that, 2006, I went back to the Shasta
3 Trinity Unit. I worked as an engineer, I got promoted
4 that summer as an engineer and worked at Station 43.

5 At the end of that summer, I got offered a
6 permanent engineering job, and I turned it down because I
7 was only 20 -- I was in my early 20s. I think I was 24.
8 And I just wasn't, I didn't feel like I was ready really
9 to be an officer yet. So I went down to Riverside,
10 California -- or Riverside County and got a job down
11 there working as a Firefighter 2 in February. I worked
12 at Station 77 for a number of months. I don't think
13 quite a year. Then I got a job at the HAZMAT Station
14 down there.

15 I worked at HAZMAT for two years approximately.
16 I became permanent with the state at that point. I went
17 to Ione and got six more weeks of training.

18 I came back, and shortly after that the HAZMAT
19 team was going through kind of a, I guess contraction and
20 so they were moving people, so I took a pretty much
21 lateral transfer to Palm Desert and started working on
22 the truck company there, Truck 33. And I worked on that
23 for four years, until I finally decided to promote again.

24 I promoted and stayed in that battalion, which
25 was Battalion 12, as an engineer, working the case from
26 relief, taking on more responsibilities.

1 And then I ended up going back to the truck and
2 worked on the truck for another year, until I transferred
3 up to LNU.

4 Whenever I transferred to LNU --

5 Q. What is LNU?

6 A. Sonoma-Lake-Napa unit. Acronym is LNU.

7 I transferred to there, and I got assigned to
8 Yountville, Station 12, working on the Schedule A ride
9 there, running calls into the Yountville Veterans' Home.
10 I did that for approximately a year and some change. I'm
11 not exactly positive.

12 Then in 2016, I got promoted to a fire captain
13 at Delta Camp. So I've been at Delta Camp from 2016
14 until I got injured.

15 Q. And what did your job duties at Delta Camp
16 entail?

17 A. So at Delta Camp, you run an inmate hand crew.
18 So when you get to Delta Camp, you have to have extensive
19 training when you get there with just the dealing with
20 inmates, because it's not a normal entity that fire
21 captains do.

22 They come to you trained with, I think about
23 six weeks of basic training. And Delta Camp is supplied
24 by Susanville Corrections Center. That's where our
25 inmates got trained. They would have a basic
26 understanding. But then you, as a captain that has had

1 multiple years of working for the fire department, would
2 then expand on that training that they have.

3 You would also get a "swamper," as they would
4 call it, and they would be the person that would ride in
5 the right-hand seat of the bus with you. And they would
6 also be kind of your right-hand man with running that
7 crew. They would have a radio. I would be at the very
8 front, leading everyone; they would be at the very back
9 with a radio, herding everybody along.

10 Q. Was that an inmate as well?

11 A. Yes, that was an inmate. The crews ranged from
12 10 or 12, all the way up to 17. Seventeen was the max
13 load that we could put on a bus.

14 So when I first got there at Delta Camp, you
15 helped shook out, as I was a relief captain, so that
16 meant that I would work on one crew one day, and the next
17 day I could work on another crew, and I'd bounce around.
18 So instead of having one crew that you had to figure out,
19 you had to figure out all the inmates.

20 Eventually, I got assigned a crew. I had Crew
21 4 for approximately a year and a half. In that time, I
22 think the whole crew had rotated through. There was no
23 one that when I started the crew I finished with. Yeah.

24 After that, I, I became a relief captain, I
25 gave my crew up.

26 And then right after that, probably a couple

1 months, I became the operational captain at the camp, so
2 my job duties kind of shifted. I still was in charge of
3 running hand crews. And that's what I would do all
4 summer. But when I was back at the camp, my job was to
5 do maintenance around the camp, take care of if a toilet
6 broke, take care of getting buildings painted, taking
7 care of building buildings, taking care of the warehouse
8 and ordering stuff. Kind of a more behind-the-scenes
9 making sure that when those fire captains came in from a
10 fire from duty, that they could have the supplies that
11 they needed to continue doing their job.

12 Q. So the 2017 fire season was pretty busy. Did
13 you go out on a lot of fires?

14 A. Yeah. So 2017 started off with a bang, and we
15 ran a lot of fires in 2017. I ended up -- so
16 Sonoma-Lake-Napa Unit, we also had the Lake Fire and the
17 -- I can't remember the names of all of them. But we
18 were the closest camp, so after the fires went out, we
19 were still assigned to do vegetation reduction and clear
20 up all the dead brush and stuff and brush roads to
21 critical infrastructures.

22 So from the time that fire went out I think
23 sometime in November until the end of November, we were
24 still working 24 hours a day, 7 days week. There was
25 really no slowing down for us.

26 Approximately somewhere in the end of November,

1 start of December, it was after Thanksgiving I know, but
2 I don't know how far into December it was --

3 Q. This is 2017 still?

4 A. This is 2017. We got assigned to the fire in
5 Santa Barbara that year. And I didn't have any vacation,
6 so I, luckily, got to go and spend all the way until
7 Christmas Eve working. My wife had actually flown down.
8 The plan was on whatever my 24 off was, we were going to
9 celebrate Christmas in Santa Barbara. And literally she
10 was on the plane down, and I was driving back. So I got
11 to drive down the next day.

12 So, yeah, that summer had been super busy.
13 Normally fire season, October starts winding down, and
14 that year it went all the way until Christmas, the day
15 before Christmas Eve.

16 So needless to say, 2018, I was not -- to even
17 start the season, I wasn't super excited. I was like,
18 I'm going to take some time and just relax for a little
19 bit.

20 Q. How did that work out for you?

21 A. Not so well.

22 So with the crews, we do a readiness drill in I
23 think April sometime. What a crew readiness drill is, is
24 all the crews in the state have to get certified that
25 they are competent in some basic things: The Ten
26 Standard Fire Orders; the 18 situations that -- shot

1 watch out; being able to get out of the bus -- they call
2 it a "tool out" -- where all the inmates get out of the
3 bus with all their tools and they line up. It should be
4 completed in I'm pretty sure 90 seconds or a minute, I'm
5 not positive on that.

6 Then once they do that, the proctors go down
7 and ask the inmates, "Hey, what's a standard fire order?
8 What's a look-out situation?"

9 After that, there's a simulated fire shelter
10 deployment, where you have your crew and you simulate,
11 "Okay, the fire's coming from here, hey, let's go here
12 and then let's get in our fire shelters."

13 After that, there is a timed hike that they
14 have to complete. Everyone has the same hike to spend
15 time. The captains pretty much lay it out and get it all
16 ready.

17 And then the last thing is a line cut. So for
18 every inmate, and I'm not, I'm not exactly solid on this,
19 you have to cut 20 feet of line. So if you have 10
20 inmates, that means you have to cut 200 feet of line in
21 an hour. It takes lots of work and practice to get crews
22 dialed in on how to get that done.

23 If you fail any of those assignments that I
24 said with the readiness drill, then you have to then come
25 back and you have to do the timed hike again no matter
26 what, and you have to do the line cut, you have to do

1 that. Usually, those are the two that people fail on.

2 That year, my crew passed. And I don't -- I
3 think at that point, I gave up my crew right before
4 Christmas, technically what I call the summer.

5 Q. So do you mean by "cut a line"?

6 A. So the inmate hand crews, our number one job is
7 to clear vegetation brush. And if you think about this,
8 if you have dirt, dirt doesn't burn, so if you have
9 vegetation on one side and vegetation on the other and
10 you want to stop the fire, you go along where it burns
11 and you cut a line.

12 So for this, it's eight feet of canopy is what
13 we like to call it, so the brush will be cut out eight
14 feet. In the center of that eight feet, you'll clear
15 four feet of dirt. So it takes quite a bit of work.

16 Then also that four feet of dirt is our path
17 out of there. So it's not like you can leave stobs and
18 stuff to trip on, you have to take and get all of those
19 out, you have to cut everything out. Yeah.

20 And then, also, if the brush is thick, you
21 don't really want to stack all the brush on one side.
22 You actually are going to end up cutting pockets in it to
23 push the brush in there and keep it out of your way.
24 It's a pretty labor-intensive process.

25 And the other expectation is that we will work
26 for 24 hours, because that is our shift.

1 Q. Okay. So you gave up your crew the beginning
2 of the summer?

3 A. Yep.

4 Q. And then did you go out on any fires that
5 summer?

6 A. Yeah. So 2018, if you guys don't remember, was
7 the year of the Carr Fire in Shasta County. We got
8 assigned to that and went up there. Right -- we actually
9 got there before it really kind of blew up. I also lived
10 in Redding, so I had extensive knowledge of where it was
11 and the fire environment. Like I said, that's where I
12 started was the Shasta Trinity Unit.

13 After we were on that for I think a week, they
14 sent us to the largest fire that was known in the state
15 of California at this point, the Mendocino Complex,
16 because the Mendocino Complex was on terrain that was
17 part of Sonoma-Lake-Napa's Unit. So the expectation was
18 that we're the experts on that terrain and we know the
19 most about it.

20 So we went to the Mendocino Complex. In that
21 month, I blocked out a pay period, which means I worked
22 all 28 days for a pay period.

23 We got done with that -- I'm trying to think
24 where we went after the Mendocino -- we were on the
25 Mendocino Complex for a long time. I think I went up to
26 a fire in, outside of Mt. Shasta. And we were there for

1 a while, but it was on forest service land, so then all
2 the Cal Fire resources got cut out I think a week or two
3 later.

4 Then I went up to the Tahoe, next to Imigrant
5 Gap, when they were on fire up there.

6 And then I think there were a couple of little
7 fires, but it kind of slowed down. And the thought was,
8 "Hey, maybe fire season is winding down." That was
9 always the hope. The reality is, and that we all know
10 and I can attribute from first-hand experience, is that
11 the deadliest time of fire season is the very end. If
12 you look at catastrophic fires, deaths, buildings being
13 burned, it's that last little bit that's the worst.
14 Wherever that falls. Whether it be in December, like
15 when I went to Santa Barbara, or in the Camp Fire in
16 November.

17 So, yeah, we -- so then we ended up going to
18 the Camp Fire.

19 Q. So before we get there, you thought the fire
20 season was winding down. Did you make plans for
21 vacation?

22 A. Yeah. So the weekend after I got burned, we
23 were supposed to -- my wife and my kids and I were
24 supposed to go to Yosemite and meet up with a whole bunch
25 our family friends, and we were sharing a cabin together.

26 So the morning of the 8th was my last day, it

1 was a Thursday, and I usually got off work at 5:00
2 o'clock on Thursdays unless you get held over, there's a
3 fire and stuff. So I was kind of like, "Hey, man, I'm
4 going to make it, I'm going to get out of here." So when
5 I went into work, I thought, "Oh, man, I just got to do
6 my couple hours." And, like I said, I had switched to
7 ops captain, so my job wasn't to take crews out on a
8 daily basis. If there were fires burning, yes, that was
9 my job, but on a daily basis, like I said, I stayed at
10 the camp and worked on other stuff.

11 Q. So tell us about November 8th. The -- how did
12 that start? You show up at work about what time?

13 A. So I show up at work -- we have to be at work
14 at 7:30, so I probably was there 7:25, 7:30-ish, right
15 there. I showed up to work, and we were kind of watching
16 the news. "Oh, man, this fire doesn't look good." We're
17 looking at some of the weather and stuff, and we're
18 thinking maybe we're going to go, maybe we'll skate out
19 this one, they won't send us. It didn't quite work out
20 that way.

21 So we got the call to form up as a strike team.
22 Which a strike is one strike team leader on a pickup
23 truck, two crew busses each with one fire captain and a
24 crew assigned to them. There's also a CDCR component.
25 There's a CDCR supervisor, which is a lieutenant or
26 sergeant, then there's two CDCR officers also in a pickup

1 truck with each CDCR officer being assigned a crew that
2 they kind of deal with and manager.

3 Q. And do those CDCR folks have any fire fighting
4 training at all?

5 A. Yes, but very minimal. The expectation is that
6 we're going to take and put them somewhere that is a safe
7 environment, that the fire can burn all around them and
8 nothing will happen to them. So that's one of our jobs
9 -- it's one of the jobs of the strike team leader is to
10 make sure the CDCR are in a safe spot to be and have
11 anything they need.

12 The thing is, if someone gets hurt, then the
13 CDCR needs to be there to respond to that injured inmate,
14 if there's going to be a change of custody or any of that
15 stuff. Because when you get to camp, like on a normal
16 day at 9:00 o'clock, we would check out the inmates and
17 do a transfer of custody from CDCR to the Cal Fire
18 captain, then you have custody until you turn them in at
19 5:00 o'clock at night.

20 Q. What is CDCR?

21 A. CDCR is the California Department of
22 Corrections and rehabilitation.

23 Q. Okay.

24 A. If you look at the camp structure, there's a
25 Cal Fire component, then there's a CDCR component. CDCR,
26 I guess, for lack of a better term, "own" -- I don't know

1 if "own" --

2 Q. They have custody?

3 A. They have custody of the inmates. They are in
4 charge of it. We get transfer of custody, we kind of
5 rent them out for the day, and at the end of the day, we
6 turn them back in to CDC. On fires, it was a 24-hour
7 shift that we would take custody of them. So I would
8 have them for a full 24 hours, then the next morning I
9 would turn them back in. And when, when CDCR took
10 custody of them, the Cal Fire employees would then go to
11 our lodging and eat and sleep and get rest and get ready
12 for another 24-hour shift.

13 Q. I forgot to ask you this, so I'm going to take
14 a step back. You said that you have EMT training, you're
15 an EMT. In your job experience, have you, in addition to
16 your medical training, have you become familiar with
17 second- and third-degree burns?

18 A. Yeah. So Cal Fire has a very extensive burn
19 policy due to our employees have got burned in the past.
20 So every year we have to do a safety stand down, and
21 almost every year part of that safety stand down is going
22 back through the burn policy. Every Cal Fire vehicle
23 also has a burn kit on it. And that burn kit is not to
24 be used for the public. That is to be used for our
25 employees. We have medical kits to use for the public,
26 but that burn kit is very specifically to be used for the

1 employees.

2 So every year you're getting re-trained on
3 burns, and you're going back through it. And you watch
4 videos. I can tell you, I've watched the Kelly York
5 video a number times. I've had extensive training in
6 burns -- recognition, treatment, all the pre-hospital
7 stuff.

8 Q. Okay. So you know the difference between a
9 second and third degree?

10 A. Yes.

11 Q. Can you just, very briefly, tell us the
12 difference.

13 A. So a third-degree burn is a full-thickness
14 burn. So with that -- I can use my hand -- it's a full
15 thickness. Whereas a second degree is a partial
16 thickness. So full-thickness burns, it will kill all the
17 nerves, pretty much kills all that skin, and there's not
18 really a whole lot. The second-degree is a partial
19 thickness, where it only burns kind of the outerly of the
20 dermis. It doesn't really get down all the way.

21 I guess the easiest way to describe it, if you
22 guys look at my face, you can see kind of the marks on
23 it. Those are third-degree burns. The second-degree
24 burn would be more like my forehead, how the pigmentation
25 has changed, and on the sides of my face. But where
26 there's that bulky scar, those are going to be

1 third-degree burns because it was a full-thickness burn.

2 Q. Sorry to have interrupted.

3 A. Nope.

4 Q. So you were telling us about the morning of the
5 8th.

6 A. Oh. So I show up to work, kind of watching the
7 news. I think there were six fire captains on duty, and
8 at that point, we only have four crews. So I was like,
9 well, this is easy math: Six people, four crews, there's
10 two crews that are going to go out of county and they're
11 going to need strike team leaders, so that's five people
12 -- three people that are going and three people that are
13 going to stay. I'm like, "My odds are pretty good I'm
14 not going."

15 Then, as it happens, if people have vacation
16 coming up or other things, which I didn't have an
17 approved vacation, I just had a plan to go on vacation, I
18 quickly realized that I was actually going to go. And I
19 was pretty irritated, I'll say that. Me and the admin
20 captain had a quick conversation, and I kind of stormed
21 out of the office because I was just like, you know, if I
22 got to go, I got to go, I just want to get my stuff and
23 get on the road and go.

24 So I found out I was going. I found out one of
25 the other captains that I had been with a lot that summer
26 was going, then another experienced captain who was

1 getting ready to retire was going. All three of us were
2 kind of in the same mindset, like, "Hey, we've got to go,
3 this is our job, get the bus crew, and let's get up there
4 and get to work."

5 So I always would get in the back of the bus,
6 and I would usually talk to the inmates when we were
7 going to a fire, like, "Hey, make sure you guys drink
8 water, make sure you're hydrated, make sure you eat
9 something." That day I actually got in the back of the
10 bus and my talk was, "It is the end of fire season. This
11 is the most deadliest time of fire season. So I need you
12 guys to pay attention to me today. If I tell you guys to
13 do something, you need to react with -- speed is of the
14 essence." And I told them it's the most likely time for
15 someone to get seriously hurt, injured, or die. I
16 remember giving that speech. And I didn't think I was
17 actually going to be an exclamation point on that speech.

18 So we get loaded up in the bus, my time on this
19 is a little hazy, 8:30, maybe 9:00. And we get the CDCR
20 component, and all five vehicles start making our way in
21 strike team formation up to Butte College.

22 Q. So about what time did you get to Butte
23 College?

24 A. I think it was right around noon. I have a
25 photo that I took out the bus that I sent to my wife that
26 I think was time stamped at 11:44. So I think it was

1 right around noon. And at that time, our, our assignment
2 was to report up to Butte College. And then you were
3 going to get an assignment from there.

4 So we got there, we got the inmates out, let
5 them go to the bathroom, let them eat some of their
6 lunches, and we just kind of hung out for a little bit.
7 Maybe an hour later, we finally got an assignment.

8 Also, I want you guys to remember, this is the
9 first day of a massive fire, so everything's,
10 everything's swarming in, and so it's a little hectic,
11 and the radio traffic is a little hectic, and they're
12 trying to expand the structure, but it takes time to
13 catch up.

14 So our first assignment was to go protect the
15 heavy equipment grounds at Butte College. Heavy
16 equipment being bulldozers, graders, all that stuff. So
17 what does heavy equipment do? They push dirt. What's
18 our job? To clear stuff to dirt.

19 So we got there, and we're like, someone didn't
20 quite think this assignment all the way through. So in
21 lack of assignment -- or in lack of orders, we go and
22 find work. So our strike team leader said, "Hey, we're
23 going to drive up Clark Road, let's cruise up there and
24 see what we can find."

25 So we drove up to -- I'm not positive what
26 street, couple above Rattlesnake Flat. We stopped. And

1 our strike team leader in his pickup truck said, "Hey,
2 I'll back, I'm going to drive down this road to see what
3 I can see."

4 He drives down there, comes back. He said
5 there's three houses down there, but they're well
6 protected, so we don't need to go in there, there's
7 really nothing to do; plus, the fire is right there. So
8 we back, back down, coming towards Butte College. So the
9 next --

10 Does -- everyone has a copy of this?

11 Q. Yeah. Do you want to --

12 A. If you want to load it up.

13 Okay. So we back down to this house right
14 here, and we came in this road, and this house kind of
15 sits on a knob above this whole valley right here. And
16 we got in there, we said, "Oh, this is the perfect place,
17 one, for CDCR to be, because we want to put them in very
18 safe places." Then two, we looked across the valley and
19 there was a house on this other side. At this point, the
20 fire was burning way -- still quite a ways up here. It
21 was out in the Butte over here.

22 Q. I'm going to interrupt you for a second,
23 because the court reporter has to take everything down.

24 So you were pointing at a house a little ways
25 off of Clark Road that's up on a little bit of a hill.
26 That was the first house you were pointing at?

1 A. Yes.

2 Q. Okay. And then you said there's another house
3 over here, that was slightly off the picture to the east,
4 and you said the fire was burning up there; is that
5 accurate?

6 A. Yeah. It was, it was burning -- in
7 relationship to the Butte that was over here, because
8 this is a Butte on this side, it was on top of the Butte,
9 because the wind that day, and it was pushing along the
10 Butte. But it wasn't in this valley. There was no wind
11 in there. It was super calm.

12

13 (Grand Jury Exhibit 1376 was marked for identification.)

14

15 Q. Then, Chad, we're looking at Exhibit 1376; is
16 that correct?

17 A. Yes.

18 Q. Okay.

19 A. So where was I? So we meet here, we pull all
20 the busses out.

21 Q. "Here" being the house on the hill?

22 A. The house on the hill. And we tell CDCR to
23 stage there, we're going to take and go across -- and
24 Rattlesnake Flat is actually down here. The line is up
25 there. But we're going to go down to this road right
26 here that cuts across the whole valley.

1 Q. Which is Rattlesnake Flat.

2 A. Which is Rattlesnake Flat. Off the screen,
3 what you can't see, is there's a train car bridge right
4 here that we didn't feel was safe enough to drive the
5 busses across. So we drove all the way across, then we
6 stopped right there, and then the strike team leader
7 drove up to that house that would be off to the east side
8 of this picture.

9 He got up there, he shot some video, took some
10 pictures, came back down, and the three of us got
11 together and we kind of looked at it. And he was like,
12 "Man, we could do something, but the problem is there's
13 no easy way for us to get out. It's not -- it's a huge
14 risk for not a lot of gain." So we decided let's not do
15 that, let's come up with another plan.

16 So the plan that we had come up with -- and,
17 like I said, there was barely any wind down here. If
18 anything, the wind was blowing to the north. We said,
19 "Okay, we'll fire this road right here."

20 Q. What does it mean by "fire"?

21 A. We'll light a backfire.

22 So one of the things that we can do to, besides
23 cutting line, is also to burn fuel. If we already have a
24 road or a line or something there that we can hold the
25 fire against and we can light with that and have the fire
26 burn back into itself -- like I said, the wind was

1 actually, at this point, was blowing or sucking back into
2 the fire. So if we lit a fire here, it would burn that
3 way. That would, that would create what we like to call
4 "black," pretty much burned fuel. Where once the fire
5 hits that black, it's going to go out, because there's
6 nothing there for it to burn. And it was a great spot to
7 do it because this is all grass.

8 You see there was some brush up here, but where
9 we were going to burn was pretty much all grass. And so
10 it's super receptive fuel bed and very easy to do if the
11 conditions are right.

12 Q. Were the conditions right?

13 A. Yes. At that point, up to until I got burned,
14 everything was going as planned.

15 So we came up with this plan to construct line
16 off Rattlesnake Flat Road. At this corner, we were going
17 to get a dozer. And, as you can see, there's kind of a
18 riparian zone or dry creek bed right here. We were going
19 to get a dozer to start punching line there, going to
20 punch it all the way around the Butte, and just keep
21 going, lighting fire, and just save as much as we can.
22 There were a number of houses down south of here and off
23 to the corner.

24 You know, and that's what we get paid to do is
25 to formulate these plans and to execute these plans and
26 to do the best good that we can with what we're dealt

1 with.

2 Q. Now, you said this was a plan that you and the
3 other captains came up with?

4 A. Yes.

5 Q. Have you ever calculated about how much
6 experience the three of you had?

7 A. So I think between the three of us, I had 17
8 years, Badie (phonetic) had 17 years, and the other
9 captain had probably close to 30 years. So just between
10 the three of us, let's say that's, let's call it 60 for
11 ease of math. But when we came up -- that was when we
12 came up with the initial plan. Then, when we were going
13 to actually do this firing operation, we had a battalion
14 chief that had another 30 years, then an engineer that
15 had another probably 10 years. So we had over a hundred
16 years of fire experience when we had our briefing right
17 here, leaning into the battalion chief's truck with all
18 fire.

19 Q. Where were the CDCR busses?

20 A. The CDCR busses were parked -- I know you can't
21 really see right here, but there's kind of a dirt path
22 right here. And the CDCR busses were parked right here.

23 Q. So that's right before the turn on Rattlesnake?

24 A. Yeah. Right before the turn on Rattlesnake.
25 When you come to that turn, there's a telephone pole, you
26 can barely see it right here. Right off that, there's a

1 little dirt path. And we parked the busses right on the
2 dirt path.

3 Q. We're going to see if we can zoom in at all.

4 Okay. So are you able to see the --

5 A. Yeah, it's, it's right here. You guys can
6 barely see it.

7 MS. DUPRE-TOKOS: Marc, can you set it up so he
8 can circle it?

9 MR. NOEL: Yep.

10 Q. (By MS. DUPRE-TOKOS) We're going to have you
11 -- it's a touch screen TV, so we're going to let you
12 circle --

13 A. Okay.

14 Q. -- where things are.

15 MR. NOEL: Best pen to use is the plunger end
16 of this. And let me get this going.

17 Q. (By MS. DUPRE-TOKOS) So injury site is already
18 marked?

19 A. Yep. It's hard to -- it's right in there.

20 Q. Okay.

21 MR. NOEL: Okay. So just go ahead.

22 THE WITNESS: So you want to know where the
23 busses were parked?

24 Q. (By MS. DUPRE-TOKOS) Yes. If you can circle
25 where the busses were, and write "bus."

26 A. Okay.

1 Q. And then if you could circle where the
2 telephone pole was, or is.

3 A. Telephone pole. Okay.

4 Q. And is the injury site not quite accurate? If
5 you want to put an X where you feel it might be more
6 accurate.

7 A. I feel it's probably closer to there.

8 Q. Okay.

9 A. But -- okay.

10 Q. So seems from what you said that you met with
11 the battalion chief somewhere around the telephone pole?

12 A. Yeah. So the battalion chief was parked right
13 here, because --

14 Q. "Right here," being right by the telephone
15 pole?

16 A. Right by the telephone pole. Just to the west
17 of the telephone pole, we cut the fence right there, when
18 we had got the crews up to the road. So I remember we
19 cut the fence, and then I told my crew to wait there, and
20 then I walked up and we had this quick pre-fire,
21 pre-operational briefing I would call it. So where
22 everybody talks about, is it a go? No go? What are we
23 looking at? What are we going to do? Who is doing what?
24 Kind of all those important things. Where we're
25 starting, where we're stopping. Yeah.

26 Q. So where was the fire at this point?

1 A. So the fire at this point was still to the
2 north of us, and it was back quite a ways. I would say
3 it was a half mile. It was closer than when we first got
4 in this valley, but it was still up there. And the wind
5 was still in our favor when we had that briefing. The
6 wind was still pushing back this way. Not really good,
7 but it was still going the direction we wanted it. It
8 hadn't changed. And that was one of the things I
9 remember we had in that conversation was the wind hadn't
10 changed the whole time we had been there. At this point,
11 we had been there for a while. Like I said, we drove
12 across, we looked at the other house on the hill, we came
13 back. It takes a while to get a bulldozer to come. We
14 had been there for an hour, two hours. So -- and in that
15 whole time, we even said, "Hey, the wind's been in our
16 favor the whole time, this is a solid operation, we can
17 do some good work."

18 Q. So once you had your plan of attack, what did
19 you do?

20 A. So the strike team leader loaded up -- the
21 strike team leader was at the telephone pole also with
22 his pickup truck. He loaded up I want to say two, maybe
23 four inmates with him. He took them off to the west. He
24 was going to start firing at Clark Road and where
25 Rattlesnake Flat starts. He was going to bring fire from
26 there headed to the east.

1 The other crew was going to be kind of in the
2 middle there, and they were going to, they were going to
3 take fire from when they, when the strike team brought it
4 to them, and then continue on.

5 Then my job was, I was going to be here, and I
6 was going to take the fire from here, and we were going
7 to go up this road and kind of keep it in check. What we
8 didn't want to do was this thing to take off to the races
9 and get around us. So my job was more to kind of keep it
10 in check when it got here and not let it go super fast
11 up.

12 Q. And "here" being --

13 A. At the --

14 Q. -- injury site, right around where the road
15 curves?

16 A. Yeah.

17 So when we parked the busses, I loaded up the
18 crews, I got to this fence. I remember cutting the
19 fence, because the fence was brand new. When I cut it
20 with my Leatherman tool, I remember the strands of barbed
21 wire popping. And normally you don't have that with a
22 lot of barbed wire fences that have been there for a
23 while. But this one was fairly new. So I just wanted to
24 add that in.

25 So we have our briefing, the strike team leader
26 takes off to the west, the other crew takes off to the

1 west, and I kind of sit there for a second, and I'm just
2 kind of checking everything out. Then I took my crew and
3 I walked them past the injury site and then turned back
4 around and walked them back.

5 The reason why I did that is the swamper has
6 the radio. I want the swamper at the other end of the
7 line from me. I don't want to line them up like this and
8 me stand right next to the swamper. Plus, the people
9 that use the drip torches are right behind the saw teams.
10 The saw teams are right in the front, right behind the
11 captain, then I had the drip torches right behind them.

12 The rest of the crew, their job is to make sure
13 that when we burn this and it goes to the north, that
14 nothing gets to the south. If something gets on the
15 south, their job is to, one or two of them, get over
16 there as quickly as they can, stomp it out or put it out.
17 Because we don't want to stop burning, and we want to
18 catch anything that gets on that side, because that's
19 what we don't want burned.

20 So I walked down, and I did a U-turn with my
21 crew, and I walked back. And they made a remark about
22 the cows. There were cows out here in this field. And I
23 probably used some expletives, like "I don't really care
24 about the cows." I was worried about doing this firing
25 operation.

26 Firing operations are also -- they're intense.

1 You're laying fire on the ground, you're watching the
2 environment around you, and things can change very
3 quickly. So it's a very intense operation. And all
4 summer -- we had been burning a lot that summer, and I
5 remember that was one of the things that the guys said,
6 "I can't believe Chad got burned, because he's the --" I
7 had a motto: "It's just grass, it's just going to grow
8 back next year, it's not worth one of us dying over." So
9 a lot of times this summer I turned down operations that
10 I felt like were unsafe.

11 I even -- like if we were out doing a burning
12 operation, the other captain will sit there and tell
13 jokes and stuff, I was just like, you know, I don't have
14 time to talk about it, I'm focusing on the 16 inmates
15 that I have and the operation that we're doing.

16 So I probably said, "I really don't care about
17 the cows, and we just need to focus on what we're doing."

18 So sometime after that, I think from the time
19 that we had the briefing at the telephone pole to the
20 time I got burned was probably five minutes or less.

21 So I had my whole crew lined out, and I was
22 kind of walking back and forth just kind of checking
23 things out. I, I, I had one other critical piece of
24 information. When I was walking over there -- my gloves
25 hang right here on my shoulder strap. And I looked at
26 them and said, "Oh, put your gloves on." I was like,

1 "Wait a second, let's wait until the torches get lit,"
2 because assembling a drip torch, there's a couple
3 critical things you have to do. If you forget one of
4 those things, you have to take the whole thing apart,
5 start over. There's a nut on the bottom that has to be
6 moved from one place to another. If you don't do that,
7 then you have to take it apart.

8 Well, like I said, we burned a lot that summer
9 and there were multiple times where I would walk up,
10 forget I had my gloves on, now I have my gloves in
11 gasoline and diesel, then it's like you just made your
12 gloves flammable. So I didn't have my gloves on, and
13 that was my reasoning.

14 Normally what I'd do, I'd help with the drip
15 torches, I'd rub my hands in a whole bunch of dirt to
16 take as much of that fuel off as possible, then I would
17 put on my gloves. Then the lighting of the torches
18 sometimes is difficult, too. So, yeah, that was -- I
19 didn't have my gloves on.

20 So I'm standing here, I have my crew, and at
21 some point I turn toward the west and I see fire racing
22 past the road. At this point, I think this day's not
23 going quite as well. I turn to the east, and right kind
24 of north of the injury site, as I remember, there was a
25 little rise there. Not a lot, just a little. And the
26 plan was, "Hey, if this goes south, all we're going to do

1 is we're going to walk back through that fence and walk
2 down to the busses. You want to park the busses
3 somewhere it's not going to burn, because it looks really
4 bad if you burn up a bus.

5 Wherever you'd park the busses, we'd also cut
6 scratch line, clearing the dirt down to bare mineral
7 soil. Not a four-foot scrape, but just enough, maybe a
8 foot or two, to where if a fire comes, it won't burn the
9 bus up.

10 So the plan was -- so I saw the fire cross to
11 the west, I turned back to the east, and the fire was
12 already burning through that area. At this point --

13 Q. And "that area" being the little hill?

14 A. Right where the telephone pole was. Right
15 where our escape route was going to be.

16 At this point, I'm starting to freak out a
17 little bit, not too bad. I turned to the barbed wire
18 fence. All summer I had stepped over barbed wire fences.
19 I turned around, watched all the inmates in orange
20 struggle to get over this fence. I was last. I'm 6'2, I
21 can step over things pretty easy. Plus, that's part of
22 my job. I've been doing it for a long time.

23 I go to the fence, and it's a five-strand
24 barbed wire fence, so it's taller, as I recall, right
25 around five feet, maybe four and a half. And I kicked
26 the fence, and the fence didn't move one iota. I, then I

1 really started ramping it up. I turned and looked at the
2 road and noticed just all the hot gases going across it.

3 And the thing that kills you when you get in a
4 fire shelter is not heat, it's you take one breath of hot
5 gas, hot air, and that's what kills you. Everything
6 could burn around you, but if you, if you take one breath
7 of that, you're dead.

8 And I remember just seeing it just pumping
9 across the road and just thinking "Fuck, like we cannot
10 -- we can't do that." I'm yelling at the drip torches to
11 get lit, because the other plan is the drip torches will
12 light some of the grass on fire, and it will be enough
13 buffer to where we can step into that and let everything
14 burn around us. I'm screaming at them to get there. And
15 it was so windy, they literally couldn't get them to
16 light.

17 So at this point, I think we got to get over
18 the fence and we got to get back to the bus. I think one
19 inmate was already kind of on the fence, and he was
20 struggling to get over it, because it was a tall barbed
21 wire fence, and it was hard.

22 I had the thought in my head, two men are in a
23 fox hole, a grenade comes in, somebody's got to jump on
24 that grenade. So I walked over to the fence, I put my
25 foot on the third piece of barbed wire up, I grabbed them
26 strands above it, and I created an opening for 16 men to

1 crawl through. And I stood there burning while they all
2 got through.

3 I know I was burning because later on I ran
4 into the crew in Davis where I live, and I was dropping
5 my kids off at school, and I saw the bus, and it was Crew
6 2. I said, "Man, I haven't seen those guys, I'm in an
7 all right place, like I've been going to therapy. I want
8 to go see them and see how they're doing." And so we got
9 to talking, and they were really excited to see me. And
10 one of the things they said -- I finally asked them, I
11 said, "Hey, man, how are you guys doing?"

12 One of the guys said, "Man, I'm messed up,
13 Cap."

14 I said, "Why?"

15 He said, "I can't get those screams out of my
16 head."

17 I said, "What screaming? What are you talking
18 about?"

19 He said, "You were screaming. You were
20 screaming in the fence that you were burning."

21 When you go through something that traumatic,
22 your brain shuts it off. And I didn't even remember
23 that. I still don't remember. There's bits and pieces
24 in there that I don't remember. I know it happened, but
25 my brain won't let me access it yet. I don't know if it
26 ever will. And some days I don't know if I ever care to

1 access it.

2 Q. Chad, we're going to take a short break.

3 A. Okay.

4 MS. DUPRE-TOKOS: Madam Foreperson, about ten
5 minutes?

6 GRAND JURY FOREPERSON: Yes. Fifteen minutes.
7 Should we do the admonition?

8 MR. NOEL: Yep.

9 MS. DUPRE-TOKOS: Yes, please.

10 GRAND JURY FOREPERSON: Captain Carothers, you
11 are admonished not to discuss or disclose at any time
12 outside of this jury room the questions that have been
13 asked of you or your answers until authorized by this
14 Grand Jury or the Court. A violation of these
15 instructions on your part may be the basis for a charge
16 against you of contempt of court. This does not preclude
17 you from discussing your legal rights with your own
18 attorney.

19 Captain Carothers, what I have just said is a
20 warning not to discuss this case with anyone except the
21 Court, your lawyer, or the district attorney. Do you
22 have any questions?

23 THE WITNESS: No, I do not.

24 GRAND JURY FOREPERSON: Thank you. We'll take
25 a 15-minute break.

26 [DISCUSSION OMITTED.]

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(Break taken.)

GRAND JURY FOREPERSON: All members of the
Grand Jury are present and ready to proceed after break.

Captain Carothers, I'd like to remind you that
you still are under oath.

THE WITNESS: Yes, ma'am.

Q. (By MS. DUPRE-TOKOS) Okay. So I think where
we left off --

MR. NOEL: Oh, let me make a record first.

The 1376 that's up on the board, the copy up on
the Smartboard he's been writing on is annotated has been
saved, and we will have that marked as 1376A. It's
actually being printed right now. It will be carried
across the street for us in a few minutes, but just so
it's clear.

(Grand Jury Exhibit 1376A was marked for
identification.)

Q. (By MS. DUPRE-TOKOS) So basically where we
left off was you were stepping on the third strand of
barbed wire, holding up the fourth strand.

A. So I'm there, I'm holding the barbed wire, I'm
yelling at -- there's still one guy with the drip torch
that's trying to get it lit, and he was the last guy
through. And I'm screaming at him, and I remember

1 looking back and, I mean, it's just coming at us, it's a
2 wall of fire literally coming at us.

3 He finally goes through, and I thought at that
4 point, it was like, "Man, I'm going to, I'm going to
5 dodge this bullet, I'm going to make it out of this thing
6 unscathed." I stepped, I kind of get low, crawl through
7 the barbed wire. And when I get through, I pull my other
8 leg up, and I go to go, well, my web gear that I was
9 wearing was caught on a piece of barbed wire. And so at
10 this point, I just start fighting like a caged animal.
11 And I am fighting to get out of this barbed wire and
12 fighting. Finally, my helmet falls off. It falls
13 approximately five, six feet in front of me.

14 I got that red helmet when I became a captain,
15 and spent a lot of time in the summer wearing that
16 helmet. And the most important thing to me is my family.
17 So I put pictures of my kids on the brim. And that
18 helmet just melted. And I finally said, "Chad, you've
19 got to stop, you're going to fall down, you're going to
20 breathe in some hot gases, and you're going to die."

21 So I stopped and I stood up, and I took my arms
22 from here, and I brought them up like this. As soon as I
23 did that, I could see the white patches where the
24 third-degree burns were on my forearms. That was the
25 first point that I knew that I was actually burned, when
26 I saw those white patches.

1 I look out, the bus is maybe a hundred feet
2 from me, maybe 200 feet. Inmates are kind of scattered
3 everywhere. And I just stood there and I let the fire
4 just kind of burn past me.

5
6 (Grand Jury Exhibit 1373 was marked for identification.)

7
8 (Grand Jury Exhibit 1374 was marked for identification.)

9
10 Q. And up on the --

11 Actually, go back one more, I'm sorry.

12 On the board we have 1373. Do you recognize
13 that photograph?

14 A. This is my fire helmet from that day.

15 Q. Then 1374, what is that picture of?

16 A. This is a picture looking in the bottom side of
17 my helmet on the brim, and you can see both my kids.
18 There's one right here, and here's the other.

19 Q. So after the -- and those are photographs of
20 your kids; correct?

21 A. Yeah, we got photos I think in 2017 of both of
22 them from the school. And they're just kind of little,
23 little like stick-on photos. And somehow they made it
24 for two summers.

25 Q. How old are your kids at the time?

26 A. One and three.

1 Q. So you stopped fighting, you saw the bus about
2 a hundred yards away. You made it to the bus?

3 A. No. No.

4 Q. So what happened? You stopped fighting?

5 A. So my helmet fell off, I'm watching my helmet
6 melting, I finally stop fighting, I'm holding my arms, I
7 see the white char on both my forearms, realize I'm
8 burned. And I just stop, and I stand there, and I let
9 everything just burn past me. I remember looking down at
10 my pant legs, and they were just getting charred by all
11 the fire.

12 And, finally, everything burns past me, and I,
13 I said, "Okay, it's time to get out of this fence." So I
14 stick my right leg back through, I turn, I get low. And
15 when, when I stand up, one of those cows charges right at
16 me. And I thought to myself, "They're going to find this
17 dead, burned-up fire captain that got trampled by a
18 bull." I'm like, "My day cannot get any worse at this
19 point." It stopped, we had a moment. I guess it's
20 sacred land or something, I don't know. And it went to
21 its left.

22 And at that point, I saw the one inmate that
23 hadn't gone through the fence that had run through the
24 fire, and he was off maybe 200 feet to the left. So I
25 went to, to go get him. And when I got him, he had
26 first- and kind of second-degree burns on his face, and

1 the skin on his face had peeled down. And I thought,
2 "Oh, man, he looks kind of messed up, I wonder what I
3 look like."

4 So I got him, and I walked back to the bus. I
5 walked through the opening in the fence, and I walked
6 back to the bus. And I started to try and triage the
7 inmates and find out who was burned. At this point, I
8 really wasn't worried about myself. I was more worried
9 about I have these men that I'm in charge of, and I need
10 to make sure they're taken care of.

11 So we start triaging. There was the guy that
12 had the burns on his face, and there was another guy that
13 had facial burns. And that was it. There was two that
14 came up. And so I'm trying to get them treated with the
15 Cal Fire burn kit. And I see the other fire captain with
16 other crew come walking up. So I kind of have given my
17 crew some direction, "Hey, start taking care of these
18 guys, cool with this water." And another captain comes
19 walking up.

20 At this point, I hadn't called on the radio
21 yet, because I was still trying to assess and see if it
22 was more than two. The crew was, for lack of a better
23 term, very shell-shocked. It was -- yeah.

24 So the other fire captain comes walking up, I
25 said, "Hey, I got burned."

26 And first question he asked, "Hey, have you

1 done the radio traffic?"

2 I said, "No, I have not. If you can handle
3 that, I'll take care of my guys that are burned." I
4 asked him, "Are any of your guys burned?"

5 He goes, "I don't think so."

6 And that was the conversation. He kind of
7 walked off a little bit. The other crew assisted with my
8 two guys. And at this point, I started getting my Nomex
9 cut off me.

10 Q. What is Nomex?

11 A. So Nomex is our outer layer. With Cal Fire, at
12 that point, you wore two layers. You had a regular layer
13 of fire-resistant pants, and then you had a hundred
14 percent cotton shirt that you wore, and then on top of
15 that, you wore yellow Nomex, what is a flame-resistive
16 clothing, I want to say. Resistive, I think.

17 Q. That's the yellow suits that we see Cal Fire
18 people wearing?

19 A. Yeah. We're yellow; the inmates have orange
20 suits. Yeah, same stuff.

21 So the other fire captain starts doing the
22 radio traffic. And, like I said earlier, it's the first
23 day of a big fire, so the radio was kind of been just
24 chattering all day, and it's hard to even get in. It's
25 hard to get people to respond back to you.

26 So he does -- I'm lost for what the term is,

1 but pretty much broadcasting emergency, and it's supposed
2 to clear the channel. It just didn't really happen. But
3 what did happen was our strike team leader heard it, and
4 he got in his truck and beat feet down there. And he
5 shows up.

6 And I remember at this point I had my Nomex, I
7 had my web gear off, because someone had to help get that
8 off, and I had my Nomex off. And I walked up to him, I
9 said, "Hey, man, I'm sorry --" and, like I said, I had
10 been with this guy all summer, we had fought a lot of
11 fire. And he's still the same rank as me, but in the
12 confines of a strike team, he's kind of the supervisor.
13 And I felt really bad telling him, "Hey, man, I got
14 burned, I'm sorry."

15 And he's like, "No big deal. No big deal."
16 Like, "Have you got treated yet?"

17 And at that point, I hadn't had any treatment
18 yet. And he instantly, he's like, "Get to the inmates."
19 I remember, they came over, and the look on their face
20 was kind of -- wasn't a normal look. It was -- I don't
21 know if it was sadness or scaredness or something. And
22 they started pouring water on me. They -- it didn't feel
23 good, didn't feel bad, didn't feel anything, but I'll
24 tell you what, when they ran out of water, I felt like I
25 was on fire. My hands and face felt like they were on
26 fire.

1 It was at that point I realized I was burned
2 pretty bad. My hands were starting to swell up. And I
3 remember I was like, "I got to call my wife. I have to
4 call my wife." My hands still worked. I was able to use
5 my phone. I walked away from everyone, and I had a very
6 short conversation with my wife. And when something --
7 she answered. I said, "Hey, I got burned."

8 "What do you mean?"

9 "Hey, I got burned. I'm on fire, I got
10 burned."

11 She said, "Well, are you all right?"

12 And I was super calm, and I -- "No, I'm fucking
13 not all right. I got stuck in the fence."

14 And she asked me, "Okay, what do I need to do?"

15 I said, "You need to call your mom, have her
16 come get the kids, and meet me at the hospital."

17 She said, "What hospital?"

18 "I don't know. So I'll call you when I get
19 more info."

20 So I, I instantly hang up, and I call her mom.
21 She's like a rock in our family. I tell her, "Jodi, I
22 got burned, I need you to be super calm. Lacy's going to
23 call you, you need to come get the kids. And Lacy's
24 going to be at the hospital."

25 She said, "Okay, no problem."

26 I think I reiterated to her, "Just make sure

1 Lacy, keep her calm."

2 "No problem."

3 So I went back and I started getting more
4 treatment. And I don't know how long we were there,
5 maybe 15 minutes, maybe half an hour. I could have -- I
6 have no idea. They loaded me into one of the fire
7 engines from one of the guys who had been there at the
8 briefing at the telephone pole from earlier, and we drive
9 down to Clark Road.

10 At Clark Road, there were two ambulances
11 waiting, one for the inmates and one for me. We parked
12 the engine. And at this point, my hands are so swollen
13 up that they don't work anymore. Everyone else gets out
14 of the fire engine, and I'm sitting there. And they're
15 all looking at me like I'm crazy, like get out of the
16 fire engine, open the door. And I'm like shaking my
17 hands like this. And, finally, someone realizes I can't
18 use my hands to open the door.

19 Door opens, I climb out, I walked up to the
20 ambulance. And I think one of the medics was kind of
21 surprised because I was still walking and -- and yeah.
22 And he asked me, "Hey, can you climb on the gurney?"

23 "Yeah."

24 I climb on the gurney, and he kind of asked me,
25 "How's your pain?"

26 And it wasn't that bad, because they hadn't

1 been putting water on me for a while. And when they
2 weren't putting the water on me, it burned, but it got
3 tolerable. I said -- they gave me some pain meds, and I
4 said, "Hey, where am I going?"

5 They said, "We're going to fly you to UC
6 Davis."

7 I said, "Okay." And I told him, "I have to
8 call my wife."

9 I couldn't, I couldn't use my hands, so I had
10 him unlock my phone and dial my wife. And I told her, I
11 said, "Hey, I'm going to UC Davis." You know, "Is your
12 mom there?" I can't remember if her mom was there or
13 not. I -- yeah.

14 She said, "Okay, I'll meet you there." That
15 was it.

16 The ambulance takes me to Butte College. The
17 helicopter is sitting there waiting. The flight nurse, I
18 think, sticks her head in, the paramedic and her have a
19 quick conversation. She asked me, she said, "Hey, can
20 you walk to the gurney?"

21 "Yeah, my legs still work, I can walk." I go
22 over, I sit down on the gurney, and at this point my
23 hands were really swollen up.

24 My grandfather made it through life with seven
25 and a half fingers, flew planes, he did all sorts of
26 stuff. And I had this crazy thought: You know, if

1 you're going to lose your fingers, it's all right,
2 because if your grandfather can make it through life, you
3 can.

4 So I get on the gurney, and they loaded me in
5 the helicopter. Said, "Hey, if you have any trouble
6 breathing, we're going to have to intubate you, just let
7 me know."

8 I said, "No, I'm fine."

9 I didn't really know how bad my face was
10 burned. I couldn't see it, it hurt, I didn't know.

11 We're flying to UC Davis in Sacramento, and I
12 remember about halfway down there I started getting
13 tired. I think the adrenaline was finally wearing off.
14 And I just wanted to go to sleep. And I told myself, "Do
15 not go to sleep, do not go to sleep."

16 I lived in Sacramento for a while, and the UC
17 Davis campus is right next to the freeway, so I've seen
18 helicopters flying in there. That day was super windy,
19 and I thought to myself, having worked on a helicopter
20 before and being in this one, I'm going to crash when we
21 go in to land. I'm having this thought. And I'm like,
22 "Really, this is how my day -- this is how it's going to
23 end?"

24 We didn't. We made it. I get in. And then
25 there's only really two more things I remember. I
26 remember the burn doctor that did my skin grafts. She

1 said, "Chad, we're going to intubate you."

2 "Okay. Whatever you guys need to do, but I got
3 to call my wife first."

4 I called my wife, I said, "Hey, I'm here.
5 They're going to stick a tube down my throat." She
6 didn't know what intubation was, so I gave her a quick
7 explanation. And then they tubed me.

8 The last thing I really remember before I got
9 skin grafts was when my wife finally got there. We have
10 a song. We squeeze each other's hands three times, say
11 "I love you." She squeezed my hand once and blisters
12 popped, fluid went everywhere.

13 So I got intubated. There were two other
14 things that happened.

15 Q. I'm going to interrupt, I'm sorry. What
16 exactly is intubation?

17 A. So I can give you a couple things. They stick
18 a tube down your throat into your lungs. And it is --
19 the reason they do it with burn victims is because what
20 will happen is if you've inhaled any hot gases, that
21 tissue in your throat will swell up and you will
22 suffocate. So to prevent that, they stick an intubation
23 tube, a plastic tube with a bulb at one end. They stick
24 it in, they blow up that bulb, now they have this airway
25 that they can continue giving you air on. They can hook
26 you to a machine. They can do it with a bag valve, all

1 that stuff. A bag valve mask.

2 Yeah. So, yeah, the burn, the burn doctor,
3 Palmieri, had looked at me, and my face was starting to
4 swell at this point, and that's why she made the
5 decision, yes, we're going to intubate.

6 Q. Okay. You said there were two other things?

7 A. Yeah, so it's the day of the Camp Fire, so
8 there's a lot of people already burned. UC Davis is the
9 predominant burn center in the area. The UC Davis Burn
10 Center is actually started by the Fire Firefighters Burn
11 Institute and started to help firemen.

12 Well, they were already full when I got burned.
13 And the Firefighters Burns, who got involved, and
14 actually they moved a patient, a tall patient, never
15 happened before, to Shriners to make room for me.

16 The next thing that happened was they told my
17 wife, said, "Hey, we don't know if we're going to do the
18 skin graft surgery today or tomorrow. We normally only
19 do three surgeries." Then they ended up doing a fourth
20 surgery that day so I could get my skin grafts.

21

22 (Grand Jury Exhibit 1375 was marked for identification.)

23

24 Q. So, Chad, I have Exhibit 1375 up on the board.
25 Can you tell us what that's a picture of?

26 A. This is a picture of my left arm. You can see

1 my face a little bit. You can see -- this is before I
2 got my graft. You can see the third-degree, full
3 thickness burn right here where there's the white
4 charring. It's -- this is debrided a little bit.
5 Debriding means they've taken some of the dead skin and
6 they've scraped it off. That's what you have to do with
7 burns, you have to get all that dead skin out to let new
8 skin grow to put the graft on.

9 Yeah, you can see the palm of my hand is -- the
10 palm, the palms on both my hands, one thing about palms
11 and burns, is they don't graft palms because the skin is
12 so thick. Also, if you think about both my hands are
13 like this on a barbed wire fence, so the palms didn't get
14 burned too bad, but everything that was exposed, got
15 burned.

16 And you can also see my face. I'm not blowing
17 my cheeks out in that picture. Your face swells up.
18 They call me "Pumpkinhead." Of course, while I'm in they
19 like to joke. They call me "Pumpkinhead" because my face
20 was as big as a pumpkin.

21 This isn't too late. This is -- I don't know
22 the time on this picture, but it's not too late after I
23 got there. And my head continued to swell I think for
24 the next day. Eventually looked like my ears were tiny
25 and just my whole face was so swollen.

26 Q. So this was taken on November 8th, shortly

1 after you got there?

2 A. Yeah, should have been shortly after I got
3 there on the 8th.

4 Q. Then the hose that we see, is that the
5 intubation?

6 A. Yeah. They actually have me intubated and have
7 me hooked up to a breathing machine so that I can
8 breathe.

9 Q. Were you conscious at this point? Or do you
10 remember this?

11 A. So, I don't remember any of this. I don't
12 remember any of it. Part of the reason is the cocktail
13 of drugs that they give you. One, you don't want to
14 remember it because it's so painful; and, two, it just
15 doesn't, it doesn't do you any good. So the drugs that
16 they give you for pain management, everything else, kind
17 of forget.

18 The next thing I remember was I finally got
19 cleared to get out of bed. And I think it was like a
20 week later. And in the burn center they had set up a
21 conference room. And that's where the family was. So
22 they didn't have to go in and out of the burn doors every
23 time, they were just in a conference room.

24 So I -- they told me, "Hey, it's time to get up
25 and walk."

26 I said, "I want to go to the conference room,"

1 and see if my mom was in there. My mother-in-law that
2 had came and picked up the kids was there. Someone from
3 the Firefighters Burn Institute was there. And my wife
4 took a picture of me walking down that hallway --
5 hospital gown, IV thing, my arms are all bandaged, both
6 sides. I remember when I turned and looked in that room,
7 the faces that looked back at me, they didn't know what
8 to think, because I was burned so bad. One hand, I think
9 they were happy because I was out of my bed, but it was
10 also the realization I was really messed up.

11 Q. So how many surgeries have you had?

12 A. So I had the one surgery for my skin grafts
13 that are from the bottom of my forearms all on the
14 outside of my hands and fingers on both hands.

15 Q. Where did that skin come from?

16 A. That skin comes off your leg. So the best
17 thing -- one of the other things they don't tell you
18 about being burned is they're going to take a cheese
19 grater and take skin off you. When you take all that
20 skin off, then you have nice, cool, red legs, and super
21 easy-to-tear skin.

22 If you look right here, it's been a year and a
23 couple months.

24 Q. And you're pointing to a spot on your right
25 thigh?

26 A. Yeah. I was coming out of the shower, and I

1 just happened to catch this on the door, and it just
2 peeled all the way back.

3 So those skin grafts, like, "Cool, you've got
4 skin grafts on your hands." But where they take it from
5 is almost like a whole nother injury and trying to deal
6 with that.

7 The worst day I had in the hospital, and -- I
8 talked to another fireman that got burned, he told me,
9 "When I saw you, I didn't want to tell you this." The
10 worst day is they take and put this stuff called Mepiplex
11 (phonetic) over your skin grafts. And they leave it on a
12 couple days to hope that that, where they've shaved all
13 that skin off heals. Then you go in the shower, like you
14 do every day, and they scrub your wounds. And they say,
15 "Hey, today's the day we're going to take the stuff off
16 your skin grafts."

17 "Okay."

18 On the burn floor, there are a lot more pain
19 meds than other floors because the injuries hurt so bad.
20 So 500 units of morphine, I think -- or Dilaudid. I
21 can't -- it was a pain med.

22 Get in the shower, they start pulling one off,
23 they're giving me more pain meds. We ran out of pain
24 meds.

25 I told the nurse, I said, "Hey, give me a
26 towel." I remember my wife was sitting right across from

1 me. She knew when I was in pain, because I would tap my
2 foot, because that was all I could move. There was a
3 nurse on each arm, nurse working everywhere, nurse
4 working on my face. I took that towel and I bit on that
5 towel. And they pulled that stuff off, and I almost
6 passed out from pain.

7 To say -- yeah, it sucks I got, my hands got
8 burned, but those grafts that you get are just as
9 painful. Because the other thing you have to remember,
10 my hands got burned so bad that I don't have nerve
11 feeling in this -- where it got grafted. I don't feel
12 any of that. So you don't feel pain. But where they
13 took those grafts off, I still had all those nerves, so
14 it hurt. And it's the same thing; you have to change
15 those dressings multiple times a day.

16 My face. You had to get shaved, usually twice
17 a day. Ended up finding a guy, one of the male nurses
18 that was really good at shaving, and he would come in and
19 shave me. And a theory with burns is, if there's blood,
20 it's good. The reason why, if you shave all that scar
21 tissue away and it starts bleeding, that means the tissue
22 is alive. If there's no blood, that tissue is dead and
23 it's probably not going to come back.

24 So, yeah, say that the burn unit is painful
25 would be the understatement of decades.

26 Q. How long were you in the burn unit?

1 A. I'm almost positive it was 20 days. It was
2 right, just right around three weeks.

3 Q. And did you go home from the burn unit, or did
4 you step down to another unit?

5 A. No. I saw multiple people get moved to other
6 units, and they kept me there the whole time, which was
7 really nice. Like I said, the Firefighters Burn
8 Institute is very big into that. It's actually called
9 the Firefighters Burn Institute Burn Center. So that's
10 why I stayed.

11 But when you go home, it's not like you're
12 healed up. You guys saw my leg, it's still not healed.
13 You can see my face, my face still. When you go home,
14 your significant other, my wife, got the joy of doing
15 showers every day with me and peeling scabs off and
16 making sure I didn't get infected and doing dressing
17 changes. And we did that for two months after I was
18 home. And I remember the big thing was when I finally
19 didn't have any more open wounds on my hands. And I want
20 to say that took until the summer.

21 My face, when they went in to do my, the graft
22 on my hands, they told my wife, they said, "We might
23 graft his face, we don't know, we got to wait until we
24 get in there." Like I said, they have to debride it, get
25 all the dead skin off, kind of get a look. It's hard to
26 assess your face. And -- yeah. So a couple months ago,

1 they said, "Hey, we might have to go back in and graft
2 your face because it's burned so bad."

3 When you get your hands grafted, you get to
4 wear -- you have to wear compression gloves. So I wore
5 compression sleeves up to here because my elbows also
6 burned, because when I was holding the fence, the fabric
7 right there was tight. You have to wear compression
8 garments. If they do a face graft, you have to wear a
9 plexiglas or UV mask for up to two years.

10 I actually wore one for a while. The problem
11 with them are, you can't have any open wounds on your
12 face because it's lined with silicone. You can't eat
13 with it. You can't drink anything with it. You can't
14 sweat with it. You literally just have to sit there with
15 it. So I'd wear it at night. But sometime in the night,
16 almost every night, I would tear it off. I don't even
17 remember. I'd wake up in the morning and it would be
18 laying there on the floor.

19 How do I not remember that? Because I don't
20 sleep. I don't sleep unless I take a sleeping pill. And
21 I've tried -- I'm on my third one now. Because my brain
22 -- my burn injuries that you can see are bad, but what
23 you can't see is how messed up my head still is. You
24 can't see. And these injuries pale in comparison to my
25 head.

26 Firemen are praised for being calm in stressful

1 situations. That's what we look for. Whole house could
2 be burning down, people could be hanging out windows, and
3 we have to make these calm, calculated decisions on who
4 to save, what to safe. When I first got home, I couldn't
5 make any decisions. I still struggle with decisions
6 every day. And stress, I can't -- I don't do stress. I
7 can't do it. Like it just -- I just, I just lose it.

8 One day I put all these yard piles out, and
9 they came to pick them up. And I had my son with me,
10 Owen, and -- because he was sick that day. I said, "Oh,
11 we'll sit out here and we'll watch them pick up the
12 piles." Big claw, kind of cool, he's one, he's going to
13 want to see it.

14 They came up and the guy said, "We can't pick
15 up your piles, they're too big." And I lost it. I -- a
16 normal person would be like, "Okay, I will take care of
17 it." I lost it. And I screamed at this guy. I called
18 him every name. I told him, "Send your supervisor out
19 because -- F him." And I lost it. And it wasn't until
20 later I realized the whole time I was losing it and
21 screaming at this man, I had my kid right here.

22 So hospital, burn.

23 So you finally go home. They don't start you
24 on depression meds right away, because they kind of want
25 to see where you fall. And then finally, I think in
26 March, finally I just hit rock bottom. My wife didn't

1 show up to my burn appointment. Normally she showed up
2 to each one of them. And it was a cry for help.

3 I had already at that point been going to
4 therapy. I started going to therapy immediately after I
5 got out, because I said -- I have PTSD, there's no -- or
6 PTSI, whatever you want to call it, there's no way you
7 can make it through this without that.

8 So I started therapy, but at a certain point
9 therapy can only do so much. So then I started taking
10 medications and doing therapy. And I had a year, yes.
11 If you told me, "Hey, man, you should go stand on your
12 head in the corner and it will make you do better," I
13 would go stand on my head in the corner. We tried
14 everything. Some stuff helped, some stuff didn't work.
15 But still, at the end of that year, your head still's
16 messed up.

17 Depression for me looks like angry outbursts,
18 just like I did to the guy that wouldn't pick up the
19 piles. And to say that my kids and wife have weathered
20 the storm is an understatement. The whole three weeks I
21 was in the hospital, I don't remember a lot of it, but I
22 know one person who does and who was there the whole
23 time. And that's my wife.

24 When you get married, you say better or worse.
25 She saw me at the absolute worst. I couldn't wipe my
26 butt for weeks because my hands were numb. I would have

1 angry outbursts about stupid things because of the
2 depression. You take this fireman, climbs up ladders,
3 saves people, does all this stuff, and you whittle him
4 down to I couldn't do anything because my hands were
5 bandaged. I couldn't do anything. I know that it's
6 probably taken a toll on her.

7 Q. So, Chad, I want to go back and just ask a
8 follow-up question real quick.

9 You said just before you got to the fence to go
10 through it, you said the wind had changed?

11 A. So what happens with fires, all this heat, hot
12 gases, smoke, and stuff goes up and it forms a column.
13 And this huge smoke column. If it gets big enough, it
14 makes this big cloud and can make a thunderhead. If it
15 gets so big, at a certain point, it can actually
16 collapse. And what happens is it takes and sends all
17 that energy that's gone up, straight down. So then what
18 happens on the fire, wind at super erratic speeds come
19 out every direction, and it pushes the fire in every
20 direction.

21 So if you look, there's -- you don't have the
22 picture of the --

23 Q. I don't have nothing.

24 A. There's a picture, and I think it was taken at
25 the same time that I got burned over. And the fire
26 literally goes over -- like I said, where we had been all

1 day in that valley, nice kind of backing fire with wind
2 barely blowing, to I don't even know how windy it was --
3 40, 50 miles an hour, instantly. And then with the
4 receptive fuel bed of grass, it can spread really
5 quickly.

6 So that's how we think, part of the reason I
7 got burned over is because it happened, it went from zero
8 to 10 million in a matter of seconds.

9 Q. So then one last thing. If you can just re-cap
10 for us what your injuries were and are.

11 A. So I have first-, second-, and third-degree
12 burns to my face from right kind of where my hairline is,
13 all the way down to where my chin, with the predominant
14 injuries being along my chin line.

15 I also have a couple in my neck. These
16 actually got removed when I had surgery. They used to be
17 worse.

18 I have second-degree and third-degree burns to
19 my hands and my forearms. Also my elbows. And I got
20 skin grafts on everything but my palm.

21 Q. And then you have where they took the grafts
22 from?

23 A. Yeah, and then the graft sites.

24 Q. Now, you said that you had the skin graft. Was
25 that the only surgery you had?

26 A. No. That's the other thing. I remember the

1 first burn thing I went and did, people were like, "Oh,
2 how many surgeries you've been in? Got one, you got skin
3 grafts, that's good."

4 No, that's not the case for skin burns. You
5 have to go in and have other surgeries. You have to, as
6 you can see, they cut so many scars out of my neck, cut a
7 huge scar out back here.

8 Q. "Here" being?

9 A. I'm sorry, behind my left ear. There was a
10 huge scar. I think because I was holding the fence,
11 turned that way yelling, giving encouragement to my crew
12 to move.

13 And then they also had to come in and do a
14 surgery on my hands. My hands actually work pretty well,
15 but I have some complaints, because, like I said, I used
16 them a lot before I got burned, so I want them back to a
17 hundred percent. I don't know if they're going to get
18 there. My thumbs won't rotate out. What does that
19 matter? Well, I've rebuilt my houses, and I can't pick
20 up a piece of plywood anymore. And it's a minor thing,
21 but it's a big thing to me.

22 So we went and had a surgery here. And they
23 cut through all this skin and cut a big Z in here.
24 Called a "Z-plasty." They did that there, on this pinky
25 on this hand.

26 Q. So on both your thumbs and both your pinkies?

1 A. No. My right thumb, my right pinky, and my
2 left pinky.

3 So I had surgery on both my hands in December.
4 When you come out of the hospital from surgery on both
5 your hands again, do you know how much of a tailspin it
6 puts you in when you go home and, once again, you can't
7 do anything? So depression kicks back in. We have to
8 climb out. Luckily, it didn't take me as long to climb
9 out, but it still took its toll. And who is there? My
10 wife, taking care of me.

11 So that's the -- the second surgery they're
12 talking about either grafting my whole face or grafting
13 part of it right here, because it pulls down my lip.

14 And another problem is, when you get burned,
15 all the skin tightens. So a lot of the people that came
16 in and talked to me while I was in the hospital that were
17 burned, they have first-degree burns on their face, and
18 when they got done, they didn't have any wrinkles on
19 their face, looked like their face was amazing, because
20 it tightens that skin. With me, because of how the burns
21 are, at night when I sleep, sometimes my eyelids don't
22 close. They're talking about going and cutting my face
23 to put more skin in it so that can help.

24 I'll probably have another surgery to get some
25 of these other scars out.

26 They're talking about doing hair removal,

1 because what happens with all this scar tissue I have on
2 my chin is the spots where the hairs still grow, it gets
3 infected, becomes ingrown hair. Talking about removing
4 that.

5 Talking about doing laser surgery on my face to
6 get color back and to soften up some of that scar tissue.

7 And I think my hands are kind of where they
8 are. They -- I have put a lot of time, energy, and
9 effort into them to get them as good as they are. And
10 they're decent. They're not like my old hands. They --
11 the skin is like baby skin, and I'm a 38-year-old man
12 that worked with my hands my whole life. So now anytime
13 I go to do anything, I have to wear gloves. I already
14 have a set of my own skin gloves that I got to put on
15 with the grafts, but now I have to wear gloves all the
16 time, because this skin just, just isn't tough. And it's
17 really bad to, to get an injury where you have a skin
18 graft, because if it gets under the graft, it could be
19 bad. It just is a bad, bad combination.

20 MS. DUPRE-TOKOS: I don't have any further
21 questions.

22 Do any of the jurors have questions?

23 Yes.

24 THE WITNESS: I'm open to anything. I'm an
25 open book.

26 (Counsel and Grand Jury Forepreson confer.)

1 MR. NOEL: All right, Captain. The jurors are
2 allowed to ask questions. They write them down, we go
3 over them, make sure they're okay.

4 THE WITNESS: Okay.

5 MR. NOEL: So the first question from the juror
6 is why did you want to stand for your testimony?

7 THE WITNESS: You know, my wife asked me that
8 the other day in the car, because it's definitely brought
9 up a lot of emotions with her. And I kind of told her,
10 "I have nothing to hide." I did the best I could that
11 day with what I had, and if, if somebody wants to hear
12 it, I'm going to tell them. I figured I was going to get
13 subpoenaed either way, so I -- my department would have
14 made me come here or the county would have made me come
15 here, so I figured, "Hey, you know what, it's a lot
16 easier just coming on your own. Come, show up." And,
17 like I said, I don't, I don't think I have anything to
18 hide.

19 I -- part of it, also, I think it's also good
20 for me. I haven't told this story in a while. I live a
21 very private life. So I haven't said it in a while, and
22 sometimes I think it's good for me to tell the story.

23 MS. DUPRE-TOKOS: And why did you want to
24 physically stand while you testified?

25 THE WITNESS: You know, I'm a very active guy,
26 and I've never had a desk job, so you put me behind a

1 desk, I feel like I'm contained and in a cage. Let me
2 stand. I can move around a little bit. I like talking
3 with my hands. I also wore shorts today because I wanted
4 you guys to see those skin grafts, where they came from.

5 It's important to me to not cover up my burns.
6 It's -- they're my story. I have to walk this life with
7 them. I know I've done a lot of reading about, about
8 injuries, and I told someone this, you know, when you
9 talk to people in the military, if they lose a leg, you
10 know what they get? They get another leg. If they lose
11 an arm, they're going to get an arm. If you burn your
12 face, there's nothing they can do. And there's no way to
13 hide it. And it's one of the worst injuries.

14 MR. NOEL: Did it surprise you how quickly the
15 fire reached your positions?

16 THE WITNESS: Yeah. I think when we were
17 having the briefing, it was beyond where Rattlesnake Road
18 comes -- goes north and then hangs a right again. And I
19 recall this distance being almost a half mile.

20 I've been a fireman for a long time, and I've
21 -- I even said, when I worked at Vina on the helicopter,
22 we probably came and I probably fought fire in this same
23 land. And so for all of us to sit here and have this
24 briefing right here -- and this is the only solace I
25 really get, because I question this decision a lot. I
26 still haven't accepted it. I'm still working on that.

1 But the solace I have is, like I said, we had a hundred
2 years of experience, we have some of the best people I've
3 ever worked with were standing there with me, and we all
4 made that decision together. And I, I've asked them, I
5 said, "Did we make the wrong decision?"

6 They said, "No. At that time, it was textbook.
7 It was exactly what we get paid to do."

8 So, yeah, to say -- when I, when I saw the fire
9 run across the road to the west of us, I instantly was
10 like, "That's not good. Let's get out of here." And
11 when I turned back east and it was already there, yes, I
12 -- and the only thing I have to explain for that is the
13 crazy weather.

14 MS. DUPRE-TOKOS: Marc, can I have one second?
15 We've got one more question.

16 Do you want to see it?

17 MR. NOEL: On November 8th, 2018, with several
18 experienced fire crew members, why was there not a safe
19 plan in place for escape established for everyone?

20 THE WITNESS: So that was our -- you know, a
21 part of, part of everything we do is we build in that
22 escape route. And that was our escape route. Like I
23 said, we were only a hundred feet to this fence and back
24 through. That was my plan, was to go back, walk through
25 that, and stand there and watch it all kind of burn
26 around us. And that was the plan. And then when that

1 fire went across that way -- or, I'm sorry, came from the
2 north down and cut that route off, that's when I went and
3 quickly reassessed and tried to figure out a different
4 plan.

5 MR. NOEL: And, just briefly, a follow-up on
6 something earlier, you said that your one inmate
7 firefighter would -- gone off, that he also had burns?

8 THE WITNESS: Yeah. So there was one inmate --
9 the other injuries that happened that day from this
10 event, one inmate fell when he was climbing through the
11 fence, and he sustained burns to his face; the other
12 inmate ran through the fire. But what happened was on
13 this --

14 MS. DUPRE-TOKOS: You pointed north when you
15 said "up."

16 THE WITNESS: He ran north.

17 The other problem, this road had barbed wire
18 fences on both the north and south sides of it, so he ran
19 north. He hit the barbed wire fence on the north side.
20 Luckily, that fence wasn't nearly as stout as the one we
21 were going through, but he still fell down. Then he -- I
22 don't -- I'm sorry, I don't know if he fell down or what
23 had happened, but I know he said he had a problem with
24 the fence and that his face was burned.

25 MR. NOEL: Second- or third-degree?

26 THE WITNESS: I think his was second. It might

1 have been first.

2 MR. NOEL: Okay.

3 THE WITNESS: Both the two inmates got released
4 -- they both went to the burn center, but they both got
5 released from the burn center that night.

6 MR. NOEL: Okay. And these were inmate
7 firefighters; correct?

8 THE WITNESS: Yes.

9 MR. NOEL: And, finally, this isn't really a
10 question, just a statement from the jurors. It says,
11 "Thank you for your heroism that probably saved the lives
12 of several of your crew that day."

13 THE WITNESS: You know, that's something I
14 really struggle with still. I'm -- like I said, I
15 haven't told this story in a while, and every time people
16 say that I'm a hero. And I have a really hard time with
17 that, because we wouldn't have been there that day
18 without me making those decisions. And maybe I did
19 something wrong.

20 And, also, I didn't become a fireman to be a
21 hero. I became a fireman to help people. Help people
22 that are sick, help people out of burning building, help
23 whatever. I didn't do it for metals. I didn't do it for
24 honor. I did it to help.

25 So people call me a hero, I still have a hard
26 time with. I still think, "Man, maybe I missed something

1 that day. Maybe if I was on top of my game or thought
2 something or was sharper that day nobody would have got
3 burned."

4 The other, the other three guys or four guys
5 that were there at that briefing, they all said they were
6 expecting to come back to dead bodies laying on the
7 ground. And they've told me they don't know how we all
8 lived through it, but we did.

9 MR. NOEL: I don't believe we have anything
10 further for the captain.

11 Madam Foreperson.

12 GRAND JURY FOREPERSON: Captain Carothers, you
13 are admonished not to discuss or disclose at any time
14 outside of this jury room the questions that have been
15 asked of you or your answers until authorized by this
16 Grand Jury or the Court. A violation of these
17 instructions on your part may be the basis for a charge
18 against you of contempt of court. This does not preclude
19 you from discussing your legal rights with your own
20 attorney.

21 Captain Carothers, what I have just said is a
22 warning not to discuss this case with anyone except the
23 Court, your lawyer, or the district attorney. Do you
24 have any questions?

25 THE WITNESS: No, ma'am.

26 GRAND JURY FOREPERSON: Thank you for your time

1 today. And you are amazing.

2 THE WITNESS: Thank you.

3 [DISCUSSION OMITTED.]

4

5 (Grand Jury Exhibits 1373, 1374, 1375, 1376, 1376A
6 admitted into evidence.)

7

8 [DISCUSSION OMITTED.]

9

10 (Grand Jury Exhibit 55A was admitted into evidence.)

11

12 [DISCUSSION OMITTED.]

13

14 (Grand Jury Exhibit 139A was admitted into evidence.)

15

16 [DISCUSSION OMITTED.]

17

18 (Grand Jury Exhibit 145, 146 was admitted into evidence.)

19

20 [DISCUSSION OMITTED.]

21

22 (Grand Jury Exhibit 150, 151, 152, 153, 154 admitted
23 into evidence.)

24

25 [DISCUSSION OMITTED.]

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(Grand Jury Exhibit 240, 241, 241A, 242, 242A, 243,
243A, 244, 244A, 245, 245A, 245B, 246
admitted into evidence.)

[DISCUSSION OMITTED.]

(Grand Jury Exhibit 629 was admitted into evidence.)

[DISCUSSION OMITTED.]

--oOo--

COURT REPORTER'S CERTIFICATE


This is to certify that I, JENNIFER L. HUNT, CSR, a Certified Shorthand Reporter of the State of California, was present at the time and place the foregoing proceedings were had and taken in the within matter; that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings and afterwards caused my said shorthand writing to be transcribed into typewriting. Further, pursuant to CCP237 all reference to jurors by name has been redacted.

The foregoing pages beginning at:

1 through 70

are certified to be a complete transcription of said stenographic shorthand notes.

DATED: THIS 6TH day of JUNE 2022



JENNIFER L. HUNT, CSR 10735
OFFICIAL REPORTER

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IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

BCSC-2019-GJ-01

REDACTED
CERTIFIED
COPY

REDACTED CONFIDENTIAL GRAND JURY PROCEEDINGS

FRIDAY, MARCH 13, 2020

VOLUME 45

OROVILLE, BUTTE COUNTY, CALIFORNIA

JENNIFER L. HUNT, CSR 10735, OFFICIAL COURT REPORTER

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APPEARANCES:

FOR THE BUTTE COUNTY

DISTRICT ATTORNEY'S OFFICE:

(Present) Michael L. Ramsey, District Attorney

(Present) Marc Noel, DDA

(Present) Jennifer Dupre-Tokos, DDA

25 County Center Drive

Oroville, California 95965

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OROVILLE, BUTTE COUNTY, CALIFORNIA

FRIDAY, MARCH 13, 2020

8:30 a.m.

(Confidential Grand Jury Proceedings)

-oOo-

[ROLL CALL OMITTED.]

[DISCUSSION OMITTED.]

GRAND JURY FOREPERSON: Would you, please,
raise your right hand to be sworn, Ms. Celentano.

JENNIFER CELENTANO
having been called as a witness in
the matter now pending, having been first
duly sworn, testifies as follows:

THE WITNESS: I do.

GRAND JURY FOREPERSON: Thank you. Have a
seat, please.

EXAMINATION

BY MS. DUPRE-TOKOS

Q. Good morning.

A. Morning.

Q. And could you, please, state your full name,
spell your last name for the record?

1 A. Sure. Jennifer Celentano, spelled
2 C-E-L-E-N-T-A-N-O.

3 Q. And we've already gone through your
4 qualifications --

5 A. Yes.

6 Q. -- so we're not going to do that again. We are
7 just going to jump right into it.

8 A. Okay.

9 Q. Are you familiar with the name Joyce Acheson?

10 A. Yes.

11 Q. And why are you familiar with that name?

12 A. We consider her a Camp Fire victim.

13 Q. And was there a case number associate -- so
14 when you say a "Camp Fire victim," did she die in the
15 Camp Fire?

16 A. Yes.

17 Q. Or as a result of it?

18 A. Yes.

19 Q. Was a case number assigned to her death?

20 A. Yes.

21 Q. And is that case number 18, dash, 19805?

22 A. Yes.

23

24 (Grand Jury 1378 offered for identification.)

25

26 Q. And I'm showing you Exhibit 1378, which you

1 should also have in front of you. Do you recognize that
2 photograph?

3 A. Yes. That's Joyce Acheson.

4 Q. Okay. Now, did Ms. Acheson, or Acheson, live
5 up within the burn zone of the Camp Fire?

6 A. Yes.

7 Q. Did she live in an area that was restricted?
8 And by that I mean no one was allowed in, no one was
9 allowed out except for certain First Responders?

10 A. Yes.

11 Q. Did Ms. Acheson have some severe health
12 problems, to your knowledge?

13 A. She did.

14 Q. Was she ambulatory, meaning could she easily
15 move around?

16 A. No, she could not.

17 Q. And she was very ill?

18 A. Yes.

19 Q. Would a caregiver have been able to get to
20 Ms. Acheson in the first -- the day of the Camp Fire and
21 the first few days afterwards, based on where she lived?

22 A. No.

23

24 (Grand Jury 1379 offered for identification.)

25

26 Q. I'm going to show you what's been marked as

1 Exhibit 1379, which you should also have in front of you?

2 A. Yes.

3 Q. And do you recognize that?

4 A. Yes. It's the Death Certificate for Joyce

5 Acheson.

6 Q. And what day was she found?

7 A. She was found on November 19th, 2018.

8 Q. And she was found deceased?

9 A. Yes.

10 Q. And, again, we don't know what day she died, do

11 we?

12 A. Correct.

13 Q. And what is the cause of death that is listed

14 on that death certificate?

15 A. Pending.

16 Q. Okay. Is there the amendment or the

17 supplemental page?

18 A. Yes.

19 Q. And does that list a cause of death?

20 A. Yes.

21 Q. And what is the cause of death that's listed?

22 A. Progressive inanition.

23 Q. What is progressive inanition, do you know?

24 A. To be honest with you, I'm not going -- yeah.

25 Q. Not going to go --

26 A. Not positive.

1 Q. And is there a list of associated causes?

2 A. Yes. Vascular dementia; ischemic cerebral
3 infarction, right frontal lobe; low rectal prolapse;
4 protein calorie malnutrition; squamous -- squamous cell
5 carcinoma, left shoulder; severe anemia and dehydration.

6 Q. And based on your training and your work as a
7 coroner's investigator, some of those things, such as
8 the dehydration, would that be consistent with someone
9 who was essentially bedridden and unable to get to food
10 and water?

11 A. Yes.

12 Q. And, as I recall, you told us that the list of
13 causes of death, things like accident, things like that,
14 what's checked off for Ms. Acheson?

15 A. Let's see. Natural.

16 Q. Okay.

17 Nothing further at this time.

18 Do the jurors have any questions?

19 Okay. I believe you need to get the
20 admonition.

21 THE WITNESS: Okay.

22 GRAND JURY FOREPERSON: Investigator Celentano,
23 you are admonished not to discuss or disclose at any time
24 outside of this jury room the questions that have been
25 asked of you or your answers until authorized by this
26 Grand Jury or the Court. A violation of these

1 instructions on your part may be the basis for a charge
2 against you of contempt of court. This does not preclude
3 you from discussing your legal rights with your own
4 attorney.

5 Investigator Celentano, what I have just said
6 is a warning not to discuss this case with anyone except
7 the Court, your lawyer, or the district attorney. Do you
8 have any questions?

9 THE WITNESS: No.

10 GRAND JURY FOREPERSON: Thank you for your time
11 today.

12 THE WITNESS: I just wanted to say, really
13 quickly, thank you to all of you for being here. It
14 really means a lot that you stuck through it and stayed
15 here for these victims of fires. Well, thank you.

16 And everybody else.

17 GRAND JURY FOREPERSON: Thank you.

18 [DISCUSSION OMITTED.]

19

20 (Grand Jury 1378, 1379 admitted into evidence.)

21

22 [DISCUSSION OMITTED.]

23 --oOo--

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COURT REPORTER'S CERTIFICATE


This is to certify that I, JENNIFER L. HUNT, CSR, a Certified Shorthand Reporter of the State of California, was present at the time and place the foregoing proceedings were had and taken in the within matter; that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings and afterwards caused my said shorthand writing to be transcribed into typewriting. Further, pursuant to CCP237 all reference to jurors by name has been redacted.

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1 through 6

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DATED: THIS 6TH day of JUNE 2022



JENNIFER L. HUNT, CSR 10735
OFFICIAL REPORTER

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No.	Exhibit Description	Offered	Admitted	Refused	Vol.
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IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF BUTTE

IN RE:

CONFIDENTIAL GRAND JURY
PROCEEDINGS

REDACTED

BCSC-2019-GJ-01

CONFIDENTIAL GRAND JURY PROCEEDINGS

TUESDAY, MARCH 17, 2020

VOLUME 46

OROVILLE, BUTTE COUNTY, CALIFORNIA

Before The Honorable JUDGE KIMBERLY MERRIFIELD, JUDGE

LISA McDERMID WELCH, CSR 10928, OFFICIAL COURT REPORTER

SEALED PURSUANT TO PENAL CODE 938.1 (b)

1 APPEARANCES:

2 FOR THE BUTTE COUNTY DISTRICT ATTORNEY'S OFFICE:

3 Michael Ramsey, District Attorney
4 Marc Noel, Deputy District Attorney
5 Jennifer Dupre-Tokos
6 25 County Center Drive
7 Oroville, California 95965

8 FOR THE STATE OF CALIFORNIA DEPARTMENT OF JUSTICE
9 OFFICE OF THE ATTORNEY GENERAL:

10 (No appearance)

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1 OROVILLE, BUTTE COUNTY, CALIFORNIA

2 MARCH 17, 2020; 8:30 a.m.

3 (Confidential Special Grand Jury Hearing Proceedings)

4
5 [ROLLCALL OMITTED.]

6
7 [DISCUSSION OMITTED.]

8
9 [Whereupon grand jury deliberations take
10 place between 9:12 a.m. and 1:15 p.m.]

11
12 (ROLLCALL OMITTED.)

13
14 MR. RAMSEY: And so . . .

15 GRAND JURY FOREPERSON: We asked to have you
16 come over because we have come to an agreement on our
17 decision. Our decision is to indict on all counts.

18 MR. RAMSEY: All righty. Thank you, Madam
19 Foreperson.

20 It's at this time that we will then go ahead and
21 get the judge to come in, and we'll have that judge come
22 in and take the formal Indictment from the foreperson.

23 GRAND JURY SECRETARY: Should we clear off the
24 bench?

25 MR. RAMSEY: A little bit, yes. That would be
26 good.

1 MS. DUPRE-TOKOS: Off the record for a second.

2 [Whereupon Judge Merrifield takes
3 the bench at 11:29 a.m.]

4 HONORABLE JUDGE MERRIFIELD: All right. Good
5 morning, Ladies and Gentlemen.

6 Will the clerk please call the roll of the grand
7 jury.

8 THE COURT CLERK: After your name, please answer
9 with "present."

10 Grand juror number one Ms. [Name redacted]?

11 GRAND JUROR NUMBER ONE: Present.

12 MR. NOEL: It should just be the numbers.

13 MS. DUPRE-TOKOS: It's confidential.

14 MR. NOEL: Not the names.

15 THE COURT CLERK: Okay.

16 Grand juror number one?

17 GRAND JUROR NUMBER ONE: Present.

18 THE COURT CLERK: Grand juror number two?

19 GRAND JUROR NUMBER TWO: Present.

20 THE COURT CLERK: Grand juror number three?

21 GRAND JUROR NUMBER THREE: Here.

22 THE COURT CLERK: Grand juror number four?

23 GRAND JUROR NUMBER FOUR: Here.

24 THE COURT CLERK: Grand juror number five?

25 GRAND JUROR NUMBER FIVE: Here.

26 THE COURT CLERK: Grand juror number six?

1 GRAND JUROR NUMBER SIX: Here.
2 THE COURT CLERK: Grand juror number seven?
3 GRAND JUROR NUMBER SEVEN: Present.
4 THE COURT CLERK: Grand juror number eight?
5 GRAND JUROR NUMBER EIGHT: Present.
6 THE COURT CLERK: Grand juror number nine?
7 GRAND JUROR NUMBER NINE: Here.
8 THE COURT CLERK: Grand juror number ten?
9 GRAND JUROR NUMBER TEN: Present.
10 THE COURT CLERK: Grand juror number eleven?
11 GRAND JUROR NUMBER ELEVEN: Present.
12 THE COURT CLERK: Grand juror number thirteen?
13 GRAND JUROR NUMBER THIRTEEN: Present.
14 THE COURT CLERK: Grand juror number fourteen?
15 GRAND JUROR NUMBER FOURTEEN: Present.
16 THE COURT CLERK: Grand juror number fifteen?
17 GRAND JUROR NUMBER FIFTEEN: Here.
18 THE COURT CLERK: Grand juror number seventeen?
19 GRAND JUROR NUMBER SEVENTEEN: Present.
20 THE COURT CLERK: Grand juror number eighteen?
21 GRAND JUROR NUMBER EIGHTEEN: Yes.
22 HONORABLE JUDGE MERRIFIELD: All right. Thank
23 you. It does appear that a quorum of the grand jury is
24 present. I note 16 jurors.
25 Ms. Foreperson, does the grand jury have an
26 Indictment to present to the Court at this time?

1 GRAND JURY FOREPERSON: Yes, Your Honor.

2 HONORABLE JUDGE MERRIFIELD: All right. Thank
3 you.

4 All right. Ms. Foreperson, the Court would
5 inquire of you as foreperson of the grand jury of this
6 county four questions. First, did all of the grand
7 jurors present now hear all the testimony taken?

8 GRAND JURY FOREPERSON: Yes, Your Honor.

9 HONORABLE JUDGE MERRIFIELD: Second, was this --
10 the Indictment found and returned by the concurrence of
11 at least 12 grand jurors?

12 GRAND JURY FOREPERSON: Yes, Your Honor.

13 HONORABLE JUDGE MERRIFIELD: Thank you.

14 Third, are the names of all the witnesses
15 examined before the grand jury endorsed on the
16 Indictment?

17 GRAND JURY FOREPERSON: Yes, Your Honor.

18 HONORABLE JUDGE MERRIFIELD: And lastly, did you
19 personally sign the Indictment endorsed therein a true
20 bill?

21 GRAND JURY FOREPERSON: Yes, Your Honor.

22 HONORABLE JUDGE MERRIFIELD: All right. And for
23 the record on behalf of the district attorney's office
24 appearances.

25 MR. RAMSEY: Appearances. Mike Ramsey, district
26 attorney.

1 MR. NOEL: Marc Noel, supervising deputy
2 district attorney.

3 MS. DUPRE-TOKOS: Jennifer Dupre-Tokos, deputy
4 district attorney.

5 HONORABLE JUDGE MERRIFIELD: All right. Thank
6 you.

7 It does appear that the Indictment has been
8 properly found and returned by the grand jury and
9 presented to the Court all in the form and matter
10 required by law. Therefore, the Indictment is ordered to
11 be filed with the clerk now in the presence of the grand
12 jury.

13 And, Mr. Ramsey, as to appearance of the
14 defendant.

15 MR. RAMSEY: Your Honor, before we get to the
16 appearance of the defendant, there is a number of items
17 of evidence that have been submitted before the grand
18 jurors. We have a list of those items, and Mr. Noel will
19 present that to the clerk. And we will also present to
20 the clerk the -- the items themselves so that they may be
21 kept in a secured and confidential place as grand jury
22 exhibits.

23 HONORABLE JUDGE MERRIFIELD: All right.

24 MR. NOEL: Madam Clerk, the grand jury's
25 original exhibit list of 1,379 exhibits plus for some of
26 those exhibits there are A copies, B copies, C copies.

1 And the exhibits are all organized by folder.

2 THE BAILIFF: Just leave them on the cart,
3 please.

4 HONORABLE JUDGE MERRIFIELD: All right. And for
5 the record, I see there's six boxes.

6 MR. NOEL: There are three complete boxes of
7 exhibits.

8 HONORABLE JUDGE MERRIFIELD: All right. And
9 you're presenting those to the clerk to be received into
10 evidence?

11 MR. NOEL: Yes, Your Honor.

12 HONORABLE JUDGE MERRIFIELD: All right. The
13 Court will allow that and note that for the record that
14 they have been delivered to the clerk of this court all
15 of the exhibits that were received in evidence upon which
16 the grand jury returned this Indictment.

17 Is that correct?

18 MR. NOEL: Yes, Your Honor.

19 HONORABLE JUDGE MERRIFIELD: All right. So
20 again, as to the Court has properly found and returned
21 and accepted the Indictment. And I am handing that to
22 Madam Clerk at this time for her to file.

23 MR. RAMSEY: And, Your Honor, at this point the
24 defendant -- that would be the Pacific Gas & Electric
25 Company -- is not in custody. It is our request that the
26 Court issue a summons for that corporation to be summoned

1 to appear in the North Butte County Courthouse, 1775
2 Concord Avenue, Chico, California, on March 27th, 2020,
3 at 8:30 a.m. to answer the accusatory pleading, i.e., the
4 Indictment, for one count of unlawfully causing a fire, a
5 violation of Penal Code Section 452 with special
6 allegations under Penal Code Sections 451.1(a) (2),
7 (a) (3), and (a) (4), and for 84 counts of involuntary
8 manslaughter in violation of Penal Code Section 192(b).

9 And we will present a copy of that to the Court
10 and ask that it be signed so that we may -- and get a
11 conformed copy. We will take it upon ourselves to get
12 the defendant corporation here at that date and time.

13 HONORABLE JUDGE MERRIFIELD: All right. Thank
14 you. The Court will sign that summons and ask that that
15 also be processed by the clerk.

16 The Court is ordering the Indictment to be
17 sealed as well as any transcripts will also be ordered
18 sealed.

19 MR. NOEL: Pending arraignment?

20 HONORABLE JUDGE MERRIFIELD: Yes, pending
21 arraignment. Thank you.

22 And, Ms. Foreperson, do you have any further
23 business with this court?

24 GRAND JURY FOREPERSON: I do not.

25 HONORABLE JUDGE MERRIFIELD: Thank you.

26 MS. DUPRE-TOKOS: And I'm sorry, Your Honor.

1 There's one other matter. I believe that the court
2 reporters will need to file their transcripts with the
3 Court within ten days. And if they need additional time,
4 they would need to request that.

5 HONORABLE JUDGE MERRIFIELD: All right.

6 MS. DUPRE-TOKOS: And that they would be sealed.

7 HONORABLE JUDGE MERRIFIELD: Yes. They are
8 ordered all to be sealed.

9 Anything further?

10 MR. RAMSEY: No, Your Honor.

11 HONORABLE JUDGE MERRIFIELD: All right. Ladies
12 and Gentlemen, I know that you worked for a long time and
13 very hard. I thank you all for that and your service to
14 our community. I can't express enough how much the Court
15 appreciates the civic duty that you've all taken on. D
16 you are excused. Thank you.

17 MR. RAMSEY: And we'll go off the record at this
18 juncture. And we will just be speaking with the grand
19 jurors about ministerial matters.

20 HONORABLE JUDGE MERRIFIELD: Okay. That's fine.
21 Thank you.

22 MS. DUPRE-TOKOS: Thank you, Your Honor.

23 MR. NOEL: Thank you, Your Honor.

24 HONORABLE JUDGE MERRIFIELD: Thank you.

25 [Off the record from 11:37 a.m.
26 until 11:41 a.m.]

1 HONORABLE JUDGE MERRIFIELD: All right. Going
2 back on the record. My understanding is the Court needs
3 to order that all of the grand jurors' binders be
4 received and destroyed.

5 MR. NOEL: Yes. Collected and destroyed, Your
6 Honor.

7 HONORABLE JUDGE MERRIFIELD: All right. And I
8 see them piled around.

9 And those are all the binders that we need to
10 collect and destroy?

11 MR. RAMSEY: And we will take responsibility for
12 that, Your Honor.

13 HONORABLE JUDGE MERRIFIELD: All right. Thank
14 you so much. Thank you, Ladies and Gentlemen.

15 [Matter adjourned at 11:42 a.m.]

16 --oOo--
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COURT REPORTER'S CERTIFICATE

This is to certify that I, Lisa McDermid Welch, a Certified Shorthand Reporter of the State of California, was present at the time and place the foregoing grand jury proceedings were had and taken in the within matter; and that as such shorthand reporter I did take down in shorthand writing the aforementioned proceedings; and afterwards caused my said shorthand writing to be transcribed into typewriting; and the foregoing pages, beginning at the top of Page 1 to and including Page 12 hereof, constitute a full, true, accurate, and complete record of the proceedings.

DATED: This 6th day of June, 2022.

Lisa McDermid Welch

LISA MCDERMID WELCH, CSR, RPR
CSR LICENSE NO. 10928



BUTTE COUNTY DISTRICT ATTORNEY

MICHAEL L. RAMSEY
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Chief Investigator



THE CAMP FIRE PUBLIC REPORT

A SUMMARY OF THE CAMP FIRE INVESTIGATION

June 16, 2020

PREFACE

During the early morning hours of Thursday, November 8, 2018, the Cal Fire Captain in charge of the Jarbo Gap station in the Feather River Canyon could hear the “Jarbo Winds” as they were known locally begin to howl as he got up to fix breakfast for his crew. As he fixed that breakfast he started to hear what he thought was rain begin to hit the roof and sides of the fire station. He started to look outside when the wind took the door from his hand. He discovered it wasn’t rain he was hearing, but pine needles from the surrounding forest forcibly pelting the outside of the station. He went back inside to continue fixing breakfast, but was interrupted as the station’s dispatch radio feed went off alerting him to a possible fire in the Canyon.

The Cal Fire crew immediately rolled out of the station up Highway 70 and the Canyon, past the small enclave of Pulga and up river to the Poe Dam. Arriving above PG&E’s Poe Dam just before sunrise, the Captain and crew saw the beginnings of a conflagration under the PG&E high voltage power line on the ridge top across the river from them. The sight sent a chill through the Captain and crew because they could see the fire was already exploding toward the south and west riding the Jarbo Winds, which were so high the Captain struggled to remain upright. The Captain radioed into his headquarters with urgency in his voice – his crew would never be able to get in front of this fire to control it and in a prophetic understatement he told dispatchers: “This has the potential of a major incident.”

In less than an hour, the fire had torn through Pulga and the mountain hamlet of Concow and reached the eastern outskirts of Paradise – throwing softball-sized embers ahead to the north into Magalia and over the town into the Butte Creek Canyon on the west side. Paradise and its residents were hit from three side by massive walls of fire. Chaos and confusion reigned. Thousands of homes and businesses were lost in the matter of a couple of hours. A town of some 26,000 people was utterly destroyed.

Eight-four souls were lost in the most horrific way imaginable – burned to death.

Within a few hours of the fire, Cal Fire arson investigators began to make their way to where the responding Captain had seen the start of the fire. Traveling up Camp Creek Road (from which the Camp Fire took its quirky name), the investigators came to what appeared to be the fire’s beginning. The ground under what was PG&E’s transmission tower #27/222 showed clear signs of the fire’s beginning and a burnt path toward the southwest. Looking up, the investigators saw a detached line hanging down into the steel superstructure of the high-voltage transmission tower.

Something had broken - and sent the live 115 kilovolt (kV) power line (also known as a conductor) to arc against the steel tower and shower molten steel and aluminum metal onto the grass and brush below. A painstakingly detailed arson investigation began.

Within a few hours, the Cal Fire investigators had begun to reach their preliminary conclusions that the Camp Fire was started by the failure of a suspension hook holding up an insulator string which in turn held up the highly energized line. The investigators had found the broken iron

hook, also known as a “C hook”, and it appeared to have not just broken, but had worn through after a great deal of time hanging in the windy environs of the Feather River Canyon.

The investigators reached out to the Butte County District Attorney’s Office on November 9, 2018 and discussed their initial findings with the office – including their concern that a PG&E helicopter had been seen hovering above the suspect tower.

The Butte County District Attorney’s Office had had past dealings with PG&E and its criminal violations of failing to clear vegetation from its lines which sparked fires. The office also knew PG&E was a federal felon for its criminal actions leading to the San Bruno gas line explosion.

A directive was given the Cal Fire arson investigators that the DA’s office was opening a joint investigation with them and to treat the fire origin site as a crime scene and to prevent anyone, including PG&E, from entering. (The Cal Fire investigators had already started the process of securing the scene with private security.)

And so began the Camp Fire Investigation. . .

The next week Cal Fire arson investigators directed PG&E linemen under their close scrutiny to begin the dismantling of tower 27/222 and seized relevant portions for evidence. Later, Butte County District Attorney investigators teamed with Cal Fire arson investigators to examine other power lines in the vicinity of the suspect tower. Evidence from those surrounding towers was seized with the assistance of experienced linemen from PG&E under the close scrutiny of a loaned Federal Bureau of Investigation (FBI) Evidence Team.

Prosecutors were taken from normal day-to-day business in the office and assigned to oversee the investigation. Thus began the arduous task of gathering information from PG&E and others to determine the who, what, how and why of the Camp Fire.

Early into the investigation it became clear that as we began to collect terabytes of data from a facially cooperative PG&E that more broad based and intrusive subpoenas would be needed to dig out data from the extensive PG&E files including its vendor files. Additionally as PG&E witnesses, past and present, were being contacted for interviews, we found PG&E has hired attorneys to represent them and encourage silence.

We partnered with the California Attorney General who assigned experienced prosecutors to assist in the investigation and it was decided a special investigative criminal grand jury should be sworn to subpoena evidence and examine reluctant witnesses under oath. This grand jury was in addition to the regular “watchdog grand jury” that is sworn in every June in Butte County. This special grand jury of 19 ordinary Butte County citizens was selected from 100 summoned potential jurors and sworn in on March 25, 2019.

As an investigatory grand jury, it was the duty of the jurors to sift through all the evidence, hear the witnesses and keep an open mind as to whether there truly was any criminal liability on the part of anyone for causing the Camp Fire. This dedicated group of citizens then meet in secrecy for the next year and heard nearly 100 witnesses, reviewed approximately 1600 exhibits, and produced some 6000 pages of transcript. It cannot be overemphasized the patience and sacrifice

of these citizens, meeting once to twice a week for almost a year. And since they were sworn to secrecy, they were not even able to tell their employers, friends and family what they were so diligently working on. Even more amazing was their dedication to their important work to seek justice. Such was their dedication that only three grand jurors were unable to finish their term.

The remaining 16, after their months of hard work and review of all matters, returned an Indictment finding sufficient evidence to charge the Pacific Gas and Electric Company with 85 felony counts – one count of unlawfully and recklessly causing the Camp Fire as a result of its gross negligence in maintaining its power line, and 84 individual counts of involuntary manslaughter naming each of the persons directly killed in the Camp Fire by PG&E's criminal negligence. The Indictment also included three special allegations for PG&E's causing great bodily injury to a firefighter; causing great bodily injury to more than one surviving victim; and causing multiple structures to burn (listed as approximately 18,804 structures). ([See attached Indictment.](#))

PG&E, who had been represented by criminal defense attorneys during the investigation and Grand Jury proceedings, was informed of the Indictment and decided to plead guilty "as charged" to all counts – thereby agreeing the evidence of its criminal negligence has been established beyond a reasonable doubt.

The following Camp Fire Public Report is a summary of the massive undertaking to determine if there was sufficient evidence to convict PG&E of its criminal behavior which lead to the Camp Fire and the awful destruction that followed. The Report also forms the core of legal documents filed with the Butte County Superior Court today to establish the Factual Basis for the pleas by PG&E to the Indictment and the People's Statement in Aggravation for the sentencing of the defendant corporation.

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INTRODUCTION

On November 8, 2018, a fire started underneath a PG&E transmission tower near Camp Creek Road, not far from the town of Pulga in Butte County, California. The fire quickly raged out of control, travelled to the town of Concow within an hour, and to Paradise – seven miles from the point of ignition – in less than 1.5 hours. Seventeen days later, on November 25, 2018, what had become known as the Camp Fire was finally declared 100% contained. It had burned 153,336 acres and destroyed approximately 18,800 structures.¹ Some 589 structures were damaged.² A total of 84 lives were lost as a direct result of the fire and at least two civilians and one firefighter suffered great bodily injury. {[Attachment – Camp Fire Presentation](#)}

I. INITIAL TIME LINE

On November 8, 2018 at 6:15 a.m., the PG&E Grid Control Center (GCC)³ in Vacaville documented an “interruption” on the energized Caribou-Palermo 115kV transmission line in the Feather River Canyon.

At approximately 6:20 a.m. on November 8, 2018, a PG&E Hydro Division employee⁴ driving eastbound on Highway 70 observed a “bright light” above a ridgeline as he approached the Pulga Bridge. Initially the employee believed the bright light to be the sun rising behind the ridgeline; however, as he continued driving, he realized the source of the bright light was a fire underneath the PG&E transmission lines on a ridge on the north side of the Feather River. The employee noted the fire appeared to be at the base of a transmission tower. In that area of the Feather River Canyon cell phone service is not available. The employee used his PG&E radio to contact PG&E employees at the Rock Creek Powerhouse and reported the fire. These employees then called 911 and were transferred to the Cal Fire Emergency Communications Center (ECC) in Oroville. The 911 call from the Rock Creek Switching Station was received by Cal Fire ECC at 6:25:19 a.m.

At approximately 6:30 a.m., an employee of the California Department of Transportation (Cal Trans) arrived at the Cal Trans Pulga Station for work. While in the parking lot of the Pulga Station he observed a fire under a PG&E transmission tower northeast of the Pulga Station and took a photograph of it. The photograph {[Attachment 001](#)} showed a fire emanating out from

¹13,696 single family residences, 276 multi-family residences, 528 commercial structures, and 4,293 other structures were destroyed according to Cal Fire.

² 462 single family residences, 25 multi-family residences, and 102 commercial structures were damaged according to Cal Fire.

³ The GCC is the consolidated hub for all transmission operations for PG&E. GCC monitors the Supervisor Control and Data Acquisition (SCADA) for all transmission lines at all times. Any problem on any PG&E transmission line triggers an immediate alert in the GCC.

⁴ Throughout this report the names of local current/ former PG&E employees are not used. The Butte County District Attorney’s Office believes, based upon anger and frustration within the community, that disclosure of the identity of involved PG&E personnel living and/or working in the area may expose those personnel to harassment, threats or violence.

under transmission Tower :027/222⁵ (Tower 27/222) of the Caribou-Palermo 115kV transmission line (Caribou-Palermo line).

At 6:29:55 a.m., the initial Cal Fire notification went out to Captain Matt McKenzie at the Concow/Jarbo Gap Station. By 6:35 a.m., two Cal Fire engines from the Concow/Jarbo Gap Station were on Highway 70 headed eastbound toward Pulga. Captain McKenzie and his firefighters first observed the fire just before reaching the Pulga Bridge. The two engines continued on Highway 70 to the Poe Dam to assess the fire and formulate a plan of attack. From above the Poe Dam on the south side of the Feather River, at 6:44 a.m., Captain McKenzie observed that the fire was burning under the electric transmission lines on the ridge on the north side of the Feather River. Based upon the location of the fire { [Google Earth map of 27/222 area and Pulga](#) } as well as the high wind speed and direction, Captain McKenzie concluded there was no available route to attack the fire. Captain McKenzie immediately realized that the community of Pulga was in danger and dispatched his second engine to evacuate the residents of that community. From his position on Highway 70, Captain McKenzie took measure of the fire (and a photograph { [Attachment 002](#) }) and requested additional resources be deployed to the west to stop the fire at Concow Road. During his initial report to the ECC, based upon his observations of the fire, the topography, and the wind, Captain McKenzie warned, “this has the potential of a major incident.” (An hour later, at 7:44 a.m., the fire reached the Town of Paradise, a distance of approximately seven miles.)

At approximately 6:38 a.m., PG&E employees at the Rock Creek Powerhouse informed the GCC of the fire burning near the Poe Dam in the vicinity of the transmission lines. At approximately 6:40 a.m., the GCC notified the Transmission Line Supervisor for the Table Mountain District⁶ of the fire. The Transmission Line Supervisor dispatched a troubleman to immediately perform an emergency air patrol of the Caribou-Palermo line. The troubleman located and documented damage on Caribou-Palermo line Tower 27/222 at 12:00 p.m. on November 8, 2018.⁷

At approximately 6:48 a.m. fire watch cameras on Flea Mountain and Bloomer Hill { [Attachment – Google Earth map](#) } recorded a plume of smoke east of Concow and west of Pulga. { [Fire](#)

⁵ According to PG&E naming convention, a transmission line name is based upon the starting point and ending point of the line. The Caribou-Palermo line starts at the Caribou Powerhouse and ends at the Palermo substation. Tower numbers are determined by the distance from the start of the line in miles and the sequential number of towers. The Caribou-Palermo line is divided into two segments; Caribou-Big Bend and Palermo-Big Bend. The inclusion of a colon (:) before the tower number denotes the Caribou-Big Bend segment. On the Caribou-Big Bend segment the tower numbering starts at the first tower coming out of the Caribou Powerhouse (:000/001) and ends with the last tower before the Big Bend Substation (:037/303). Tower 27/222 is located in the 27th mile away from the Caribou Powerhouse and is the 222nd structure in the line. On the Palermo-Big Bend segment the tower numbers begin with the last tower before the Palermo Substation (000/001) and ends with the first tower after the Big Bend Substation (016/130). { [Attachment – Google Earth Map of C-P](#) }

⁶ PG&E’s electrical transmission grid is divided into geographic districts. Each district is supervised by a Transmission Line Supervisor. The transmission lines in the Feather River Canyon are within the Table Mountain District.

⁷ At 12:01 p.m. a Cal Fire investigator spotted and photographed a helicopter from a local charter helicopter firm hovering above tower 27/222. Based upon the tail number of the helicopter it was confirmed this was the helicopter performing the emergency inspection of the Caribou-Palermo line.

[Watch Camera Bloomer](#), [Fire Watch Camera Flea](#)} Cal Fire monitors initially attributed the plume of smoke to the Camp Fire. Later Cal Fire monitors and investigators determined the smoke plume was not associated with the Camp Fire and was caused by a separate and unrelated fire. Utilizing mapping tools Cal Fire investigators determined the plume of smoke had arisen from an area near the intersection of Concow Road and Rim Road in eastern Concow. The fire was named the Camp B Fire.

II. ORIGIN AND CAUSE INVESTIGATIONS

Cal Fire assigned a team of highly trained and experienced “Origin and Cause” investigators from around California to assist the local Butte Unit investigators. Cal Fire also retained and assigned subject matter experts to assist with the investigation. The investigators were divided into two teams. One team was assigned to investigate the Camp Fire. The second team was assigned to investigate the Camp B Fire.

Cal Fire investigators determined the origin of the Camp Fire was the dry brush below Tower 27/222 of the Caribou-Palermo line, an electrical transmission line owned and operated by PG&E. Tower 27/222 was determined to be a “Transposition” tower⁸ {[Attachment – Krelle 3D model](#)}. With the assistance of a licensed electrical engineer, Cal Fire investigators determined the cause of the Camp Fire was electrical arcing between an energized “jumper” conductor (power line) and the steel tower structure. {[Attachment - Framework of transposition tower](#)} Investigators determined a “C hook” that linked an insulator string connected to the jumper conductor to the transposition arm of the tower failed, allowing the energized jumper conductor to make contact with the steel tower structure. {[Attachment 004](#)} The ensuing electrical arcing between the jumper conductor and steel tower structure caused the aluminum strands of the conductor to melt as well as a portion of the steel tower structure.⁹ The molten aluminum and steel fell to the brush covered ground at the base of the steel tower structure. {[Attachment 005](#)} This molten metal ignited the dry brush.

Cal Fire investigators determined the Camp B Fire originated to the west of Concow Road south of the intersection of Concow Road and Rim Road in a geographical bowl. The area of origin was under the right of way of the Big Bend 1101 12kV distribution line. The area of origin was approximately 2.6 miles west of the origin of the Camp Fire. At the area of origin investigators located a broken conductor from the Big Bend 1101 12kV distribution line and a fallen Ponderosa pine tree. Burn patterns on the Ponderosa pine indicated the tree had contacted a live electrical line. {[Attachment 006](#)} PG&E records show a documented outage on the Big Bend 1101 12kV circuit at 6:45 a.m. on November 8, 2018. Investigators determined the Camp B Fire was ignited when the Ponderosa pine tree toppled over onto and broke the energized Big Bend 1101 12kV distribution line. The Ponderosa pine and its stump were examined and analyzed by a certified arborist¹⁰ retained by Cal Fire. The arborist determined that the Ponderosa pine was

⁸ A transposition tower is a transmission tower that changes the relative positions of the conductors (power lines) to each other to maintain electrical balance. Transposition towers are placed at intervals along the transmission line.

⁹ Aluminum melts at approximately 1200 degrees Fahrenheit, steel melts at approximately 2700 degrees Fahrenheit. The electrical engineer estimated the temperature of the electrical arc between the conductor and the steel structure between 5,000 and 10,000 degrees Fahrenheit.

¹⁰ International Society of Arboriculture Board Certified Master Arborist.

diseased and dying prior to November 8, 2018.¹¹ However, the arborist determined the disease was internal and likely would not have been visible to PG&E tree inspectors during their vegetation management inspections. According to the arborist the disease likely only would have been discoverable by an advanced inspection.¹²

Before the Camp B Fire grew large enough to escape its geographical bowl, it was passed over and consumed by the Camp Fire. Based upon fire indicators and patterns within the Camp B Fire and recordings from the fire watch cameras, Cal Fire investigators determined that the Camp B Fire had little, or no, effect on the Camp Fire.

III. INJURIES AND LOST LIVES

In support of the great bodily injury enhancements, evidence was presented of two civilians and one fire fighter who were severely burned during the Camp Fire.

Victim 1, an adult female, was located in Concow by a Cal Fire crew in the area trying to locate another reportedly trapped victim. As the engine was trying to leave the area, visibility was near or at zero, when suddenly the smoke cleared briefly. In that moment, the Captain of the fire crew saw an arm appear from between two vehicles. The Captain and his crew stopped and located the badly burned female victim. Lying beside the female victim was a deceased male. The deceased male was later identified as the female victim's roommate. The Captain described how he and his crew repeatedly checked the male roommate futilely hoping to find signs of life. The Cal Fire crew rescued the female victim. According to the Captain, when Victim 1 was lifted into the engine, her skin sloughed off due to the severity of her severe burns. She was taken to a medical evacuation area for transport to a hospital.

Victim 2, an adult female, was located in Paradise with her husband. Victim 2 and her husband had been trying to flee the fire but were overtaken. Victim 2 and her husband took shelter behind a boulder but both were severely burned. Victim 2 and her husband were rescued by Cal Fire and taken to a medical evacuation area for transport to a hospital. According to the Cal Fire Captain, who supervised that rescue and evacuation, Victim 2 also had skin sloughing off as she was taken from an engine and placed into an ambulance. Both Victim 2 and her husband were transported to the UC Davis Medical Center Burn Unit. Victim 2's husband ultimately succumbed to his burn injuries.

Victim 3, an adult male, was a Cal Fire Captain. The Captain described that as he and his crew were preparing to do a back fire operation to create a fire break east of Clark Road and south of Rattlesnake Flats Road, northeast of Butte College, the fire changed direction and, fueled by high winds, "exploded." As the fire came rushing towards them, the Captain held strands of barbed wire up to allow his crew to quickly escape into the safety of a clearing. After his crew was safely through the fence, the Captain attempted to go through the fence. As he was going

¹¹ The arborist also consulted with a professor of Dendrochronology at the Indiana State University Dendro Lab.

¹² An advanced inspection would entail use of diagnostic tools such as a mallet, a resistograph or a sonic tomogram and generally only occurs when anomalies or outward signs of disease or decay are observed during the visual inspection.

through the fence the Captain's gear caught on the barbed wire. As a result, the fire overran his position and the Captain was severely burned. The Captain was medically evacuated to UC Davis Medical Center Burn Unit. All members of his crew survived with only minor injuries.

The Camp Fire also directly¹³ caused the deaths of the following 84 persons: {[Attachment – Camp Fire Victim Locations download and open with Google Earth Pro](#)}

Joyce Acheson – Ms. Acheson, who was 78 years old, was found deceased in her home at 1250 Elliot Road, Unit 17, in the Town of Paradise. Ms. Acheson was of limited mobility, and lived in an area that was closed off to public access, thereby preventing any caregiver from getting to her.

Herbert Alderman – Mr. Alderman was 80 years old and was found deceased inside his home at 5775 Deanna Way in the Town of Paradise. A severely sprained ankle prevented his mobility at the time of the fire, and he made several phone calls to friends seeking rescue before he perished.

Teresa Ammons – Ms. Ammons was 82 years old. She was found deceased outside her home at 6674 Pentz Road, Unit 112, in the Town of Paradise. The evidence indicated Ms. Ammons died while attempting to flee the fire as she was found just outside her trailer with her purse nearby.

Rafaela Andrade – Ms. Andrade was 84 years old and was found deceased inside her home at 6664 Moore Road in the Town of Paradise. She could not walk without the assistance of a walker, and did not have the ability to evacuate on her own.

Carol Arrington – Ms. Arrington was 88 years old. Ms. Arrington was found deceased inside her home at 1866 Stark Lane in the Town of Paradise.

Julian Binstock – Mr. Binstock was 88 years old. The remains of Mr. Binstock and his dog were located in the shower of his residence at 5900 Canyon View Drive in the Town of Paradise.

David Bradburd – Mr. Bradburd was 70 years old. Mr. Bradburd was found near 6028 Dubarry Lane, in the Town of Paradise. Mr. Bradburd was found within 400 feet of his residence on Pentz Road, near a power line knocked down by the fire. Based upon the evidence, Mr. Bradburd was fleeing the fire when he died.

Cheryl Brown – Ms. Brown was 75 years old. Ms. Brown was found deceased in her home at 1387 N-B Lane in the Town of Paradise. Ms. Brown was found seated in a recliner next to her husband, Larry Brown.

Larry Brown – Mr. Brown was 72 years old. Mr. Brown was found deceased in his home at 1387 N-B Lane in the Town of Paradise. Mr. Brown was found seated in a recliner next to his wife, Cheryl Brown.

¹³ Only persons who died within the Camp Fire footprint on November 8, 2018 from fire-related injuries; or who were medically evacuated from within the Camp Fire footprint on November 8, 2018 to medical facilities and subsequently died as a result of fire-related injuries were counted as direct victims.

Richard Brown – Mr. Brown was 74 years old. Mr. Brown was found deceased under his pickup truck outside his residence at 13377 Eleran Lane in the community of Concow. Based upon the physical evidence, Mr. Brown tried to hide from the fire under his truck.

Andrew Burt – Mr. Burt was 36 years old. Mr. Burt was found deceased just outside of the front passenger side door of a minivan. The minivan was located facing north in the 5000 Block of Edgewood Road, approximately .3 miles south of Mr. Burt's residence at 5236 Edgewood Lane in the Town of Paradise. The remains of Mr. Burt's dog were found next to Mr. Burt. Based upon the evidence, Mr. Burt had been in the minivan attempting to escape the fire when the minivan was overcome by the fire. There were three other vehicles containing the remains of four other victims near the minivan.

Joanne Caddy – Ms. Caddy was 75 years old. Ms. Caddy was found deceased inside her home at 13812 West Park Drive in the community of Magalia.

Barbara Carlson – Ms. Carlson was 71 years old. Ms. Carlson was found deceased in her residence at 5577 Heavenly Place in the Town of Paradise. Ms. Carlson's remains were comingled with those of her sister, Shirley Haley.

Vincent Carota – Mr. Carota was 65 years old and found deceased inside his residence at 5471 South Libby Road in the Town of Paradise. Mr. Carota was a partial leg amputee without a vehicle.

Dennis Clark, Jr. – Mr. Clark was 49 years old. Mr. Clark was found deceased in the passenger seat of a car with his mother Joy Porter deceased in the driver's seat. Their vehicle was in a line of three other vehicles found facing north in the 5000 block of Edgewood Lane in the Town of Paradise. The vehicle was located approximately .3 miles south of Mr. Clark and Ms. Porter's residence on Sunny Acres Road, off of Edgewood Lane.

Evelyn Cline – Ms. Cline was 81 years old. Ms. Cline was found deceased in her residence at 578 Roberts Drive in the Town of Paradise. She was physically immobile and unable to leave her home without assistance.

John Digby – Mr. Digby was 78 years old and found deceased inside his residence at 6920 Clark Road, Unit #3, in the Town of Paradise.

Gordon Dise – Mr. Dise was 66 years old and was found deceased inside his home at 2735 Eskin Maidu Trail in Chico (Butte Creek Canyon.). According to his daughter, who fled the house with her father, he went back in their home for something and never made it back out.

Paula Dodge – Ms. Dodge was 70 years old. Ms. Dodge was found deceased between two cars in the carport of her residence at 5152 Pentz Road in the Town of Paradise. Ms. Dodge's husband, Randall Dodge, was found deceased next to her. Based upon the evidence, Mr. and Ms. Dodge were attempting to flee the fire.

Randall Dodge – Mr. Dodge was 66 years old. Mr. Dodge was found deceased between two cars in the driveway of his residence at 5152 Pentz Road in the Town of Paradise. Mr. Dodge's

wife, Paula Dodge, was found deceased next to him. Based upon the evidence, Mr. and Ms. Dodge were attempting to flee the fire.

Andrew Downer – Mr. Downer was 54 years old. Mr. Downer was found deceased outside the front door of his residence at 8030 Skyway, Unit A, in the Town of Paradise. Based upon the evidence, it appears Mr. Downer died while attempting to flee the fire. He was a wheelchair bound amputee and was unable to drive.

Robert Duvall – Mr. Duvall was 76 years old. Mr. Duvall was found deceased in the passenger seat of his truck. No one else was located in the truck. The truck was in a line of three vehicles found facing north in the 5000 block of Edgewood Lane in the Town of Paradise. The vehicle was located approximately .3 mile north of Mr. Duvall's residence on Sunny Acres Road, off of Edgewood Lane. A second vehicle registered to Mr. Duvall and containing the remains of Mr. Duvall's girlfriend, Beverly Powers, was located nearby.

Paul Ernest – Mr. Ernest was 72 years old. Mr. Ernest and his wife attempted to escape the fire by driving quads¹⁴ off road through a canyon. When their escape route was blocked by a rock formation, Mr. Ernest and his wife were overtaken by the fire. Both were severely burned, and airlifted to UC Davis Medical Center Burn Unit in Sacramento. Mr. Ernest passed away from his injuries on August 5, 2019, nearly 9 months after the fire. He never left the extended care medical facility in Sacramento, after being transferred there from the UC Davis Burn Unit.

Rose Farrell – Ms. Farrell was 99 years old. Ms. Farrell was found deceased on the front porch of her residence at 1378 Herman Way in the Town of Paradise. Her wheelchair was found near Ms. Farrell.

Jesus Fernandez – Mr. Fernandez was 48 years old. Mr. Fernandez was found on the ground between two vehicles on Broken Glass Circle near Vista Ridge Road in Concow. Mr. Fernandez was the roommate of burn Victim 1 (above). Victim 1 believed Mr. Fernandez died shortly before her rescue.

Jean Forsman – Ms. Forsman was 83 years old and found deceased inside her residence at 13747 Andover Drive in the community of Magalia.

Ernest Foss, Jr. – Mr. Foss was 63 years old. Mr. Foss was found deceased outside of his residence at 5236 Edgewood Lane in the Town of Paradise. Mr. Foss was found with his oxygen tank. The evidence indicates Mr. Foss, who had limited mobility, was attempting to flee the fire at the time of his death.

Elizabeth Gaal – Ms. Gaal was 80 years old and found deceased inside her residence at 5393 Sawmill Road, Unit # 27 in the Town of Paradise.

Sally Gamboa – Ms. Gamboa was 69 years old. Ms. Gamboa was located deceased in a field/clearing behind her residence at 1560 Sunny Acres Road in the Town of Paradise. Based upon the evidence, Ms. Gamboa died while attempting to flee the oncoming flames.

¹⁴ All terrain sport utility vehicles

James Garner – Mr. Garner was 63 years old. Mr. Garner was found deceased inside his residence at 6284 Woodbury Drive in the community of Magalia. Earlier on the morning of November 8, 2018, Mr. Garner had engaged in multiple telephone calls with his sister and nephew.

Richard Garrett – Mr. Garrett was 58 years old. Mr. Garrett was found deceased among trees not far from a residence at 4238 Schwyhart Lane in the community of Concow. Based upon the physical evidence Mr. Garrett was actively running from the fire when he was overtaken and killed by the flames.

William Godbout – Mr. Godbout was 79 years old and found deceased inside his residence at 3831 Camelot Lane in the community of Concow.

Shirley Haley – Ms. Haley was 67 years old. Ms. Haley was found deceased at 5577 Heavenly Place in the Town of Paradise. Ms. Haley's remains were found comingled with the remains of her sister, Barbara Carlson.

Dennis Hanko – Mr. Hanko was 56 years old and found deceased inside his residence at 5081 Wilderness Way, Unit 3A, in the Town of Paradise.

Anna Hastings – Ms. Hastings was 67 years old. Ms. Hastings was found deceased in her residence at 8391 Montna Drive in the Town of Paradise. She was disabled, with severe scoliosis, and unable to drive.

Jennifer Hayes – Ms. Hayes was 53 years old. Ms. Hayes was found deceased in her residence at 5683 Scotty Lake Drive, in the Town of Paradise.

Christina Heffern, Ishka Heffern and Matilde Heffern – Christina Heffern was 40 years old. Ishka Heffern, the daughter of Christina, was 20 years old. Matilde Heffern, the mother of Christina Heffern, was 68 years old. All three were located in their residence at 1865 Norwood Drive in the Town of Paradise. Their remains were located comingled in the bathtub of their residence. The Hefferns placed a 911 call as the fire approached their home. Somehow the phone line remained open as the house, and the three women, burned as helpless Cal Fire ECC dispatchers listened to their screams.

Louis Herrera – Mr. Herrera was 86 years old and found deceased inside of his home at 2376 Clearview Drive in the Town of Paradise. The remains of Mr. Herrera's wife, Dorothy Lee-Herrera, were also found in the residence.

Evva Holt – Ms. Holt was 85 years old and was found deceased in a burned vehicle near the intersection of Pearson Road and Stearns Road in the Town of Paradise, approximately 1.8 miles from Ms. Holt's residence.

TK Huff – Mr. Huff was 71 years old. Mr. Huff was located deceased outside of his residence at 13471 Green Forest Lane in the community of Concow. Mr. Huff only had one leg and generally used a wheelchair. Mr. Huff's wheelchair was found approximately 10 feet away from Mr. Huff. The physical evidence indicated Mr. Huff tried to escape the flames by dragging himself along the ground.

Gary Hunter – Mr. Hunter was 67 years old. Mr. Hunter was located deceased inside of his residence at 13554 Andover Drive in the community of Magalia. He had limited mobility, due to a stroke, and could not walk without assistance.

James Kinner – Mr. Kinner was 83 years old. Mr. Kinner was located deceased inside his residence at 5237 Black Olive Drive in the Town of Paradise.

Dorothy Lee-Herrera – Ms. Lee-Herrera was 93 years old. Ms. Lee-Herrera was found deceased in her residence at 2376 Clearview Drive in the Town of Paradise. The remains of Ms. Lee-Herrera's husband, Louis Herrera, were also found in the residence.

Warren Lessard – Mr. Lessard was 68 years old. Mr. Lessard was found deceased on the front porch of his residence at Athens Way and South Park Drive in the community of Magalia.

Dorothy Mack – Ms. Mack was 88 years old and found deceased inside her residence at 6674 Pentz Road, Unit 19, in the Town of Paradise.

Sara Magnuson – Ms. Magnuson was 75 years old. Ms. Magnuson was found deceased inside her residence at 1812 Drendel Circle in the Town of Paradise. Based upon the physical evidence it appears Ms. Magnuson wrapped herself in a wet carpet and sheltered in the bathtub in an attempt to save herself.

Dolores Joanne Malarkey – Ms. Malarkey was 90 years old. Ms. Malarkey was found deceased in her residence at 432 Plantation Drive in the Town of Paradise. The remains of Ms. Malarkey's husband, John Malarkey, were also found in the residence.

John Malarkey – Mr. Malarkey was 89 years old and was found deceased in his residence at 432 Plantation Drive in the Town of Paradise. The remains of Mr. Malarkey's wife, Joanne Malarkey, were also found in the residence.

Christopher Maltby – Mr. Maltby was 69 years old. Mr. Maltby was found deceased in his residence at 1040 Buschmann Road in the Town of Paradise.

David Marbury – Mr. Marbury was 66 years old. Mr. Marbury was found deceased inside his residence at 1481 Sun Manor, Unit A, in the Town of Paradise.

Deborah Morningstar - Ms. Morningstar was 65 years old and found deceased inside of her residence at 5848 Black Olive Drive, Unit 3, in the Town of Paradise. She was unable to drive, which prevented her from being able to flee.

Helen Pace – Ms. Pace was 84 years old. Ms. Pace was found deceased inside her residence at 6674 Pentz Road in the Town of Paradise. She had medical issues, which limited her ability to leave her home.

Joy Porter – Ms. Porter was 72 years old. Ms. Porter was found deceased in the driver's seat of her car with her son, Dennis Clark Jr., in the passenger seat. Their vehicle was in a line of three other vehicles found facing north in the 5000 block of Edgewood Lane in the Town of Paradise. The vehicle was located approximately .3 miles south of Mr. Clark and Ms. Porter's residence on Sunny Acres Road, off of Edgewood Lane.

Beverly Powers – Ms. Powers was 64 years old. Ms. Powers was found deceased in the driver's seat of a pickup truck registered to her boyfriend, Robert Duvall. The vehicle was in a line of three other vehicles found facing north in the 5000 block of Edgewood Lane, approximately .3 miles south of Mr. Duvall and Ms. Powers residence on Sunny Acres Road. One of the other two vehicles contained the remains of Mr. Duvall.

Robert Quinn – Mr. Quinn was 74 years old and found deceased in his residence at 5684 Clara Lane in the Town of Paradise.

Joseph Rabetoy – Mr. Rabetoy was 39 years old and found deceased in his residence at 5580 Angel Drive in the Town of Paradise. He had no means of escape as he didn't have a vehicle.

Forrest Rea - Mr. Rea was 89 years old and found deceased in his residence at 1909 Dean Road in the Town of Paradise.

Vernice Regan – Ms. Regan was 95 years old. Ms. Regan was found deceased outside of her home at 102 Magnolia Drive in the Town of Paradise.

Ethel Riggs – Ms. Riggs was 96 years old. Ms. Riggs was located deceased inside of her residence at 220 Berry Creek Drive in the Town of Paradise. Ms. Riggs spoke with her grandson via phone at least twice on the day of the fire and told him because the power was out she was unable to get her car out of the garage. Ms. Riggs told the grandson she could not reach the manual release for the garage door, and even if she could, she was not strong enough to raise the door.

Lolene Rios – Ms. Rios was 56 years old. Ms. Rios was found deceased in the basement of her home at 750 Meyers Lane in the Town of Paradise, along with the remains of her four dogs and two cats.

Gerald Rodrigues – Mr. Rodrigues was 74 years old and found deceased inside of his residence at 5436 Clark Road, Unit 14, in the Town of Paradise.

Frederick Salazar, Jr. – Mr. Salazar was 76 years old. Mr. Salazar was found deceased in his residence at 5303 Sawmill Road in the Town of Paradise. The remains of Mr. Salazar's wife, Phyllis Salazar, were also found in the residence.

Phyllis Salazar – Ms. Salazar was 72 years old. Ms. Salazar was found deceased in her residence at 5303 Sawmill Road in the Town of Paradise. The remains of Ms. Salazar's husband, Frederick Salazar, Jr., were also found in the residence.

Sheila Santos – Ms. Santos was 64 years old and found deceased in her home at 5471 S. Libby Road, Unit 34, in the Town of Paradise.

Ronald Schenk – Mr. Schenk was 74 years old. Mr. Schenk was found deceased in his home at 5471 S. Libby Road, Unit 33, in the Town of Paradise.

Berniece Schmidt – Ms. Schmidt was 93 years old. Ms. Schmidt was found deceased inside of her residence at 14175 Citadel Way in the community of Magalia with the remains of her cat and a kitten.

John Sedwick – Mr. Sedwick was 82 years old. Mr. Sedwick was found deceased on the front porch of his residence at 13816 Glover Lane in the community of Magalia.

Don Shores - Mr. Shores was 70 years old. Mr. Shores was found deceased in a recliner in his residence at 6778 Ishi Drive in the community of Magalia. The remains of Mr. Shores' wife, Kathy Shores, were found in an adjacent recliner. Also located with Mr. and Ms. Shores were the remains of two dogs and two cats.

Kathy Shores – Ms. Shores was 65 years old. Ms. Shores was found deceased seated in a recliner in her residence at 6778 Ishi Drive in the community of Magalia. The remains of Ms. Shores' husband, Don Shores, were found in an adjacent recliner. Also located with Mr. and Ms. Shores were the remains of two dogs and two cats.

Judith Sipher – Ms. Sipher was 68 years old. Ms. Sipher was found deceased in her residence at 1005 Village Parkway in the Town of Paradise.

Larry Smith – Mr. Smith was found severely burned in the driveway of his home at 6428 Rocky Lane in the Town of Paradise. Mr. Smith was rescued and transported to the UC Davis Medical Burn Center. Mr. Smith succumbed to his injuries while still in the hospital 17 days later. Mr. Smith was 80 years old.

Russell Stewart – Mr. Stewart was 63 years old and found deceased inside of his home at 6884 Pentz Road in the Town of Paradise.

Victoria Taft – Ms. Taft was 67 years old and found deceased inside of her home at 5883 Copeland Road in the Town of Paradise.

Shirlee Teays - Ms. Teays was 90 years old. Ms. Teays was found deceased inside of her residence at 9289 Skyway Road, Unit 15, in the Town of Paradise. She appears to have been holding or hugging a framed photograph.

Joan Tracy – Ms. Tracy was 82 years old. Ms. Tracy was found deceased inside of her home at 5326 Sawmill Road in the Town of Paradise.

Unknown – The remains of this unknown victim were found comingled with the remains of another victim in Concow. Attempts at identification are still being made.

Ellen Walker – Ms. Walker was 72 years old and found deceased inside of her home at 4220 Schwyhart Lane in the community of Concow.

Donna Ware – Ms. Ware was 86 years old and found deceased inside her home at 5783 Waco Lane in the Town of Paradise.

Isabel Webb – Ms. Webb was 68 years old. Ms. Webb was found deceased inside her home at 1449 Sleepy Hollow Lane in the Town of Paradise.

Marie Wehe – Ms. Wehe was 78 years old. Ms. Wehe was found deceased inside a burned truck on the side of Windermere Lane in the community of Concow approximately .3 mile east of Ms. Wehe's residence on Windermere Lane.

Kimber Wehr – Ms. Wehr was 53 years old and found deceased inside her residence at 5908 Del Mar Avenue in the Town of Paradise. She was unable to drive due to a neurological disability, and was unable to flee the fire on her own.

David Young – Mr. Young was 69 years old. Mr. Young was found deceased with two unidentified animals inside his mini-van. The mini-van was found crashed into a tree near the intersection of Hoffman Road and Jordan Hill Road in the community of Concow. The vehicle was located approximately 1.5 miles west of Mr. Young’s residence on Hog Ranch Road in the community of Concow. Based upon the evidence, Mr. Young crashed while fleeing the oncoming fire. Mr. Young and the two animals were found in the cargo area of the mini-van. The autopsy determined Mr. Young survived the crash, but was killed by the fire.

IV. BACKGROUND OF THE FAILED COMPONENT

a. History of the Caribou-Palermo 115kV Transmission Line

According to historical reports¹⁵ provided by PG&E, the section of the Caribou-Palermo line that runs in the Feather River Canyon from the Caribou Powerhouse to the Big Bend Substation, was built between 1919 and 1921 by the Great Western Power Company. What is now known as the Caribou-Palermo line was originally part of a 165kV transmission line that carried electricity from the Caribou Powerhouse to the Valona Substation in Contra Costa County.¹⁶ PG&E acquired the Caribou Powerhouse and the entire Caribou-Valona 165kV transmission line (Caribou-Valona line) when it purchased Great Western Power Company in 1930. According to the reports, sometime during the 1960s the Caribou-Palermo line was converted to 115kV. According to the reports, there were eleven segments¹⁷, including the Caribou-Big Bend segment, of the original Caribou-Valona transmission line still in service in 2018.

Despite the fact that PG&E has owned the Caribou-Big Bend portion of the Caribou-Palermo line since 1930, the evidence established PG&E did not catalogue or replace the original

¹⁵ In April 2017 cultural resources specialists from PG&E produced a document entitled “National Register of Historic Places Inventory and Evaluation of Eleven Transmission Lines Associated with the Historic Alignment of the Caribou-Valona Transmission Corridor (NRHP Inventory and Evaluation). The NRHP Inventory and Evaluation was updated in October, 2018 by Cardno Inc. The NRHP Inventory and Evaluation includes a 2018 report entitled “DPR 523 Form” produced by the California Department of Parks and Recreation (DPR Report).

¹⁶ Using a current map, the original Caribou-Valona line ran parallel to the Feather River from Caribou-Road through the Feather River Canyon, passing to the east of Oroville to Palermo. South of Palermo the line ran parallel to State Route 70 thru Sacramento. From south of Sacramento the line ran parallel to Interstate 80 to Vallejo. The line crossed the bay from Vallejo to Valona parallel to the current Carquinez Bridge on Interstate 80. The total length of the line was 1368 steel towers and 186 miles.

¹⁷ As the electrical transmission grid has grown and substations were added the original Caribou-Valona line was divided into segments (sometimes referred to as circuits in PG&E historical documents) corresponding to the substations. The eleven segments still in use in 2018 were the Caribou-Palermo line, Paradise-Table Mountain, Palermo Pease, Pease-Rio Oso, Rio Oso-West Sacramento, Brighton-Davis, Brighton-Davis (idle), Vaca-Suisun-Jamison, Ignacio-Mare Island #1, Oleum-G #1 and Oleum-G #2.

conductors,¹⁸ insulators or attachment hardware¹⁹ on many of the towers in the original Caribou-Big Bend section of the transmission line.

Many components on Tower 27/222 were identified by PG&E as original Great Western Power components because they matched components included in the original Great Western Power Company schematic drawings for construction of the transmission line. Among those components were the insulators hung from C hooks²⁰. The records provided by PG&E clearly established the insulator string hanging from the C hook that broke on November 8, 2018 was an original 1921 insulator. Other components, such as the C hooks and the conductor, either did not completely match the original records²¹ or PG&E did not possess original records.²²

Evidence established that, with the exception of add-on hanger brackets which were added to the ends of the transposition arms to replace worn hanger holes, the transposition components on Tower 27/222, including the transposition arms, C hooks, insulator strings and jumper conductor, were original components in service since 1921. The evidence further established that despite owning Tower 27/222 since 1930, PG&E had little or no information about the 97-year-old conductor and the hooks, original hanger holes and bolted-on hanger hole plates supporting that conductor.

b. C Hook and Hanger Hole Wear

The broken C hook{[Attachment 7](#)} and the transposition arm {[Attachment 8](#)} on which it had been hung were collected as evidence by Cal Fire investigators²³. The transposition arm was identified as the left “phase” arm of Tower 27/222 {[Attachment – 3D model w/ left phase highlighted](#)}. This left phase arm had a bolted-on hanger hole plate which showed substantial wear where the broken hook had hung.

Cal Fire investigators also collected as evidence the right phase transposition arm and its still-connected (hung) C hook from Tower 27/222. .{[Attachment 9](#)} While examining the right phase C hook, Cal Fire investigators observed a “channel” had been worn into that hook where it hung from the bolted-on hanger plate hole of that transposition arm. {[Attachment 10](#)} The wear channel was similar to the channel cut into the broken left phase C hook. Similarly the right

¹⁸ In layman’s terms, a “conductor” is known as a power line or wire.

¹⁹ Hot end attachment hardware attaches the insulators to the conductor. Cold end attachment hardware attaches the insulators to the tower/structure/pole. {[Attachment – illustrative photo](#)}

²⁰ Also known as “Suspension hooks.” C hooks are part of the cold end attachment hardware.

²¹ The plans for the original Great Western Power transposition towers included a schematic, dated October 11, 1912, of an Ohio Brass suspension hook with a raised B on the right face of the hook. The relevant hook from Tower 27/222 matched the schematic except the raised B was on the left face of the hook.

²² PG&E responded to questions about the make, model and manufacturer of the conductor on Tower 27/222 by referring to an April 1922 article written by W. A. Scott in Engineering World entitled “Great Western Power Co.’s 165,000-Volt Transmission Line”.

²³ The front portion of the C hook that broke off was never recovered. Cal Fire personnel spent several days meticulously searching the area below Tower 27/222 and could not locate that broken piece. It was noted however that area was on a steep rocky slope which ran off toward the Feather River Canyon.

phase hanger hole showed substantial wear where the hole and hook connected. {[Attachment 11](#)}

Investigators also noted there were original hanger holes on both the left and right transposition arms that showed extensive wear. It was obvious the bolted-on hanger plates with their holes were replacements for these original hanger holes indicating that PG&E was aware that the hooks and holes were rubbing on each other causing wear. The wear patterns observed on the hanger holes is described as “keyholing.”

As a result of the observations of the Cal Fire investigators, an inspection of other transposition towers²⁴ on the Caribou-Palermo line was initiated by the Butte County District Attorney. Based upon the historical records and the C hooks and hanger holes from Tower 27/222, investigators from Cal Fire and the Butte County District Attorney’s Office concluded that any more than 3/16” space between top of the C hook and top of the hole indicated wear to either the C hook or the hanger hole, or both²⁵. In January 2019, investigators from the Butte County District Attorney’s Office flew the Caribou-Palermo line in a county helicopter and documented transposition towers on which the gap between the top of the C hook and the top of the hanger hole were substantially larger than 3/16.”

From the helicopter, investigators located wear to C hooks and hanger holes on three other transposition towers on the Caribou-Palermo line between the Caribou Powerhouse and the Big Bend Substation. The towers were identified as tower numbers 20/160, {[attachment – 20/160 wear](#)} 24/199 {[Attachment – 24/199 wear](#)} and 35/281. {[Attachment – 35/281 wear](#)} This wear was similar to that found on the C hooks and hanger holes on Tower 27/222. Subsequently, Butte County District Attorney investigators and Cal Fire investigators, along with Jon McGormley - an engineer and failure analysis expert,²⁶ further inspected each of these three towers. Investigators and Mr. McGormley also identified a fourth transposition tower, tower number 32/260, {[attachment – 32/260 wear](#)} on which there appeared to be very little wear between the C hooks and hanger holes. Tower numbers 20/160, 24/199, 27/222 and 35/281 were all located on ridgelines and exposed to the wind. Tower 32/260 was located in a valley where it was protected from the wind.

During the inspection of one of the four towers - Tower 24/199 - investigators noted that, similar to Tower 27/222, bolted-on hanger plate holes had been added to the transposition arms and the C hooks were hanging from those hanger holes instead of the original hanger holes of the transposition arm. This again indicates that PG&E was aware of the wear on C hooks and

²⁴ Because transposition towers have unique physical characteristics, investigators focused only on transposition towers. Transposition towers on the Caribou-Big Bend section are distinguished from other towers by the T mast atop the tower and the transposition arms on the source side of the tower. Towers 20/160, 24/199, 32/260 and 35/281 were transposition towers identical to Tower 27/222.

²⁵ According to the original schematics of the transposition towers the C hooks were 15/16” thick at the point of contact and the hanger holes were 1 1/8” in diameter. The hooks were intended to fit snugly into the holes.

²⁶ Jon McGormley was retained by Cal Fire and is an engineer and failure analysis expert with Wiss, Janney, Elstner Associates (WJE). WJE is a global firm of engineers, architects and materials scientists with a division focused on failure analysis.

hanger holes. It appeared to investigators that, at some previous time, the jumper conductor on Tower 24/199 { [Attachment – 24/199 jumper](#) } had been shortened and spliced together using a parallel groove connector. PG&E has no records of when or why this work was done. Investigators further observed the right phase²⁷ insulator string appeared to be less aged than the left phase insulator string and, as a result of the shorter jumper conductor, was not hanging plumb. From the ground, investigators also observed black marks on the tower leg nearest the right phase insulator string. This was indicative of arcing due to faulty or broken equipment. On the ground below Tower 24/199, investigators found an old insulator string.²⁸

With the assistance of PG&E²⁹, investigators seized C hooks and transposition arms from two of the three towers³⁰ with obvious wear and the tower without obvious wear. Seizure of all of the C hooks and transposition arms was catalogued and documented by a Federal Bureau of Investigation (FBI) Evidence team. Of the four towers, Tower 24/199 was found to be the most similar to Tower 27/222 in terms of topography, meteorology and wear. The right phase C hook from Tower 24/199 was the most worn C hook found on any of the towers.

The C hooks, transposition arms, and hanger plate holes from Towers 27/222 and 24/199 were sent to the Metallurgy Unit of the FBI Laboratory at Quantico, Virginia for metallurgical analysis by their recognized metallurgical experts. The C hooks were examined for defects. No defects were found. The broken left phase C hook from Tower 27/222 and the most worn right phase C hook from Tower 24/199 were determined to be malleable cast iron. The least worn C hooks from Towers 27/222 and 24/199 were determined to be forged, plain carbon steel. The broken C hook from Tower 27/222, the most worn hook from Tower 24/199, and a less worn hook were tested for hardness.³¹ The testing determined there was a significant difference in hardness between the most worn malleable cast iron hooks, and the least worn forged plain carbon steel hook. The transposition arms were also examined and analyzed, and all four transposition arms and the bolted on hanger brackets were found to be made of galvanized plain carbon steel.³²

²⁷ The term phase relates to the connection between the tower structure and the conductors. The Caribou-Big Bend section has three conductors and three phases; left, center and right.

²⁸ This was not unusual. Under numerous towers on the Caribou-Palermo line investigators found discarded insulator strings, insulator bells, conductor line and steel members.

²⁹ Any work on an electrical transmission tower requires special training and equipment. Investigators were unable to identify any qualified persons to perform the work. As a result, investigators had to rely on PG&E personnel to remove the relevant components from Tower 27/222 in November, 2018 and Towers 20/160, 24/199 and 32/260 in March, 2019.

³⁰ The C hooks and transposition arms from the fourth tower, 35/281, were replaced by PG&E in February, 2019. Those C hooks and transposition arms were seized by Cal Fire and BCDA investigators from a PG&E evidence storage facility.

³¹ The Superficial Rockwell HR30TW hardness test was used to determine hardness.

³² All of the transposition arms and hanger brackets were tested for hardness utilizing the Rockwell HRBW hardness test.

The FBI Lab scanned all of the hooks and transposition arms. The scans were used to build 3D models of each of the components. {[Attachment – 3D models download and open with Adobe Acrobat Pro](#)}

The metallurgist at the FBI Lab also analyzed the wear patterns on the C hooks and hanger holes (both original holes and the added brackets). The metallurgist determined that as a result of rotational body on body wear, the edge of the hanger holes had cut a channel into the C hooks and the C hooks had worn away the bottom of the hanger holes elongating the holes³³.

{[Attachment – Camp Fire Presentation 3:29-3:46](#)} On the broken C hook from Tower 27/222 it was determined the channel had cut approximately 14/16” {[Attachment – FBI lab photo of break](#)} into the hook before the remaining metal broke under the weight of the insulator string and jumper conductor.³⁴ On the most worn C hook from Tower 24/199 it was determined that the channel had cut approximately 12/16” channel into the hook.

Under microscopic analysis, the FBI Metallurgist also observed the channeling of the right phase C hook from Tower 24/199 showed a distinct change in angle. The metallurgist testified it was her opinion the distinct change in angle could have been caused by shortening of the jumper conductor which changed the position and angle of the insulator string attached to the C hook.

The FBI data, along with LIDAR scans³⁵ of Towers 27/222 and 24/199, was forwarded to Jon McGormley. Using this information, Mr. McGormley was able to build a computer model of Tower 27/222. The model took into account the differing hardness of the C hooks and hanger holes.³⁶ Working with meteorologist Kris Kuyper³⁷, Mr. McGormley and his team created a wind load model of the Feather River canyon, enabling them to calculate that the wear on the broken C hook from Tower 27/222, as well as the most worn C hook from Tower 24/199, was consistent with approximately **97 years of rotational body on body wear**.³⁸ {[Attachment – Camp Fire Presentation 3:52-3:54](#)}

³³ Known as keyhole wear or “keyholing.”

³⁴ According to PG&E written response to CPUC data request SED-007 question 2 each suspension hook supports approximately 142.8 pounds.

³⁵ Lidar scans were performed by the Cal Fire Lidar Team.

³⁶ The hardness of the individual metals involved plays a significant role in body on body wear. Metallurgical data from the FBI Laboratory was provided and fed into the model. The Superficial Rockwell HR30TW results for the C hooks and the Rockwell HRC results for the transposition arms were converted using ASTM E140 for comparison purposes. On the Vickers Kg/mm2 the broken hook from 27/222 scored 114 for hardness, the most worn hook from 24/199 scored 119 for hardness and the least worn hook scored 222, the transposition arm and bracket from 27/222 scored 134 and 152 for hardness, the transposition arm and bracket associated to the most worn hook on 24/199 scored 120 and 138 for hardness and the transposition arm and bracket associated to the least worn hook scored 118 and 152 for hardness.

³⁷ Kris Kuyper is the former Chief Meteorologist for Action News in Chico. Kuyper was retained as an expert by the Butte County DA.

³⁸ The transposition arms metal (around the original hanger holes) was less hard than the bolted-on hanger plate hole metal. The original hanger holes showed significantly more keyhole wear than the bracket holes.

V. INSPECTION AND PATROL POLICIES

State and federal regulatory requirements dictate PG&E must establish and follow set guidelines for patrol, inspection and maintenance of its overhead electric transmission lines. The 2012 Quanta Technology “Transmission Line Inspection Procedures Final Report”³⁹ outlined the various regulatory requirements. Among these requirements is CPUC General Order (GO) 165. Section IV of this General Order states “[e]ach utility shall prepare and follow procedures for conducting inspections and maintenance activities for transmission lines.”⁴⁰

Since 2005, PG&E electric transmission inspection, patrol, and maintenance policies have been set forth in the “Electric Transmission Preventative Maintenance Manual” (ETPM). According to the ETPM: “Inspection and patrol procedures are a key element of the preventive maintenance program. The actions recommended in this manual reduce the potential for component failure and facility damage and facilitate a proactive approach to repairing or replacing identified, abnormal components.”

a. 1987 Inspection and Patrol Bulletin

Prior to the implementation of the ETPM in 2005, inspection and patrol policies were documented in “bulletins”. The oldest bulletin provided by PG&E was dated November 1, 1987⁴¹, and entitled “Routine Patrolling and Inspection of Transmission Lines.” This bulletin stated patrols are performed “to ensure that the transmission facilities are in good repair in order to maintain a high standard of service, reliability, and safety, and the patrol policy is consistent with GO95.”⁴² In this 1987 bulletin, the terms “patrol” and “inspection” were used interchangeably.

The 1987 policy divided PG&E’s electrical transmission system into 4 parts: Class A circuits, Class B circuits, Class C circuits, and Underground. For overhead circuits,⁴³ the patrol or inspection cycles were determined by the class designation of the circuit. A PG&E troubleman,⁴⁴ who worked in the Feather River Canyon between 1987 and 1995, established the Caribou-Palermo line was considered a “Class B Circuit.” As such, under the 1987 policy the Caribou-Palermo line was required to be patrolled three times each year: one ground patrol and two aerial patrols. In addition, the 1987 policy required climbing inspections of five percent of the tower structures per year; and an infrared patrol⁴⁵ every five years. According to the 1987 policy bulletin, all patrols of transmission lines were to be completed by a “Transmission Troublemán.” This policy ensured that every overhead transmission structure would be climbed

³⁹ Quanta Technologies is a multi-national electrical utility consulting company. Quanta Technologies was retained by PG&E in 2011 to review the ETPM. This report was commissioned by, and paid for by, PG&E.

⁴⁰ The California Independent System Operator (CAISO) “Transmission Control Agreement” and Western Electricity Coordinating Council (WECC) standard FAC-501 also require PG&E to have and follow written policies for inspection and maintenance of electrical transmission lines.

⁴¹ The 1987 bulletin was the sixth revision of an existing policy bulletin and replaced the fifth revision which was published December 1, 1984 according to the face page of the 1987 bulletin. Based upon interviews with PG&E linemen from the 1970s and 1980s it is believed that the original policy bulletin was published 1972-75.

⁴² GO95 is General Order of the CPUC number 95. GO95 establishes building, maintenance and replacement regulations for electrical transmission.

⁴³ A circuit is the path electrical current flows. In the 1980s PG&E referred to transmission lines as circuits. Distribution lines are still referred to as circuits. Transmission lines are now referred to as lines.

⁴⁴ See Section VII “Troublemén and Training” below for the definition of the position of Troublemén.

⁴⁵ An infrared patrol uses infrared, thermal cameras to identify hot spots on the line. Hot spots may indicate a defect or weakness on the line.

at least once every 20 years. Because PG&E inspection/patrol records prior to 2000 are not available, it is unknown if Tower 27/222 was one of the towers subjected to a climbing inspection between 1987 and 1994.

Appendix A to the 1987 policy bulletin contained a checklist of “Conditions to be noted when patrolling lines.” One of the conditions to be noted was “Worn hardware and connectors.” Through interviews with transmission lineman, troublemen, and engineers, it was established the C hooks were technically part of the “cold end attachment hardware.”

Former PG&E Transmission Line Supervisors from 1987 noted the checklist inclusion of “worn hardware” was a result of a 1987 PG&E Laboratory Test Report⁴⁶ documenting a worn C hook and hanger hole from a Bay Area transmission tower⁴⁷. Photos of the worn C hooks and holes were distributed to troublemen in all of the PG&E regions for training purposes, and inspection of C hooks and hanger holes was made a specific priority during inspections/ patrol.

b. 1995 Inspection and Patrol Policy

The 1987 policy remained in effect until it was replaced by the “ES Guideline” in 1995. The 1995 ES Guideline made substantial changes, specifically separating out patrols from inspections. Inspection frequency was determined by a transmission line score on an “Inspection Frequency Checklist” and drastically reduced the frequency and thoroughness of inspections. The Caribou-Palermo line was reduced from three patrol/inspections (one ground/two aerial) per year to one ground inspection every 24 months and one aerial inspection every 24 months. Required routine climbing inspections were eliminated. Climbing inspections would only occur if “triggered” by one or more specific findings listed as triggers.

c. 2005 ETPM Inspection and Patrol Procedures

The 1995 policies remained in effect until they were replaced by the ETPM in 2005. According to the ETPM section entitled General Inspection and Patrol Procedures, “[t]hese inspection and patrol procedures were developed as a key element of the preventative maintenance program. The recommended actions were selected to reduce the potential for component failures and facility damage and to facilitate a proactive approach to repairing or replacing identified, abnormal components.”

The ETPM differentiated between inspections and patrols, and established definitions for each. According to the 2005 ETPM in the Detailed Overhead (OH) Inspections section:

“A detailed ground, aerial or climbing inspection of the asset⁴⁸ looks for abnormalities or circumstances that will negatively impact safety, reliability, or asset life. Individual elements and components are carefully examined through visual and/or routine diagnostic tests and the abnormal conditions of each are graded and/or recorded.

Overhead line facilities are to be inspected in accordance with the provisions in Section 2.0 of this manual. The inspections are to include detailed visual observations,

⁴⁶ The Laboratory Test Report was published approximately nine months before the Inspection and Patrol Bulletin. This Laboratory Test Report is described more fully in Section XVII “Knowledge of Risk/Consequence.”

⁴⁷ Based upon historical records it is believed that the tower was part of the original Caribou-Valona line built 1918-1921.

⁴⁸ An asset is a structure, pole or tower.

operational readings, and component testing to identify abnormalities or circumstances that will negatively impact safety, reliability or asset life.”

The 2005 ETPM **Patrols** of overhead transmission assets section states that:

“The QCR’s⁴⁹ primary responsibility in an overhead electric facility is to visually observe the electric facilities, looking for obvious structural problems or hazards without the use of measuring devices, tools, or diagnostic tests, and to record that the facilities have been patrolled.”⁵⁰

The ETPM adopted verbatim the 1995 policy on climbing inspections and triggers. According to section 3.4:

“A climbing inspection is a detailed, supporting structure based observation of the facilities installed to determine if there are any abnormal or hazardous conditions that adversely impact safety, service reliability or asset life, and to evaluate when each identified abnormal condition warrants maintenance.”

Climbing inspections may also be required for specific structures or components to properly assess a condition found during a ground or aerial inspection or patrol that could not be adequately assessed during the inspection of patrol.”

As of the 2005 ETPM, the Caribou-Palermo line was reduced to only being inspected once every five years and patrolled once per year in non-inspection years. (This reduction again is from the three patrol/inspections per year prior to 1995.)

The 2006 revision of the ETPM appears identical to section 2 of the 2005 ETPM and identifies the “Best View Position” for individual components on a transmission structure.⁵¹ According to Table 2.3-1 the best position to view insulators and hardware is aerial inspection (not patrol), ground inspection above 10’, and climbing inspection. The terms “aerial inspection” and “ground inspections above 10’” were not specifically defined in the ETPM. According to former PG&E personnel, an “aerial inspection” is significantly more detailed than an “aerial patrol” and requires a helicopter to fly 360 degrees around each structure at an altitude and speed which allows for detailed inspection of the structure components. A ground inspection above 10’ involves the use of a bucket truck to lift the QCR to allow for close inspection of the top part of the structure.

d. Patrol and Inspections Subsequent to the 2005 ETPM

Since 2005 the ETPM has been revised on multiple occasions⁵². The revisions have not changed the inspection or patrol cycles or the requirements for inspections and patrols. At the time of the Camp Fire, the third revision of the ETPM, issued May 12, 2016 was in use. Shortly after the Camp Fire, on November 20, 2018, the 4th revision of the ETPM⁵³ was published. Among other changes, the fourth revision of the ETPM incorporated new requirements for the prioritization and correction of safety hazards in Tier 2 and Tier 3 high fire threat areas identified in the 2018

⁴⁹ QCR is Qualified Company Representative. See section VII-“Troublemens and Training” for more information.

⁵⁰ See Section VII “Troublemens and Training” below for the definition of the position of QCR.

⁵¹ Copies of the 2005 ETPM provided by PG&E were missing page 2-4.

⁵² Revised editions of the ETPM were published in October 2006, April 2009, January 2011, December 2014, May 2015, May 2016 and November 2018

⁵³ Although the May 2016 revision was the sixth revision of the ETPM, PG&E did not start numbering revisions until the December 2014 edition, which was designated revision one.

CPUC Fire Threat Map.⁵⁴ These changes were required by amendments to GO95 by the CPUC, which took effect in January 2018.⁵⁵

e. The 2012 Quanta Report

The 2012 Quanta Technologies “Transmission Line Inspection Procedures Final Report” was a “comprehensive review of Pacific Gas and Electric’s (PG&E) current standards and practices used for ground patrol inspection of overhead transmission lines.”⁵⁶ According to the report, the ETPM was “found to be a comprehensive, well written document that adhered to its purpose to “ensure uniform and consistent required procedures for patrols, inspections, equipment testing, and condition assessment of electric transmission line facilities.” Quanta did not, and the report did not, evaluate the actual use, or non-use, of the ETPM by PG&E.

The evidence clearly established that PG&E did not, in fact, follow the procedures and requirements established in the ETPM. Based upon the evidence, it is reasonable to conclude that sections of the ETPM relating to inspections and patrols of overhead electric transmission lines were simply a façade created to meet the requirements of the regulators and the CAISO⁵⁷.

VI. REDUCTION OF UNIT COSTS FOR INSPECTIONS AND PATROLS

Although there were no changes to the frequency of inspections and patrols between the 2005 and 2018 ETPMs, the evidence established PG&E considered further reducing the frequency of inspections and patrols. According to 2013 internal PG&E PowerPoint, a committee was formed to explore opportunities to reduce costs by reducing the frequency of inspections and patrols and examine said “unit costs.” According to the “Problem Statement:”

“Tline⁵⁸ patrols/inspection have not been modified in approximately 10 years relative to frequency and work methods. There may be opportunities to reduce costs by 1) changing frequency of patrols/inspections or 2) finding more efficient work practices. Benchmarking PG&E’s practices against other utilities may identify potential opportunities for efficiency savings.”

Under the heading “Business Objectives:”

⁵⁴ On January 19, 2018, the CPUC adopted and published the CPUC Fire-Threat Map. The Fire-Threat Map identified elevated (Tier 2) and extreme (Tier 3) fire threat areas in the State of California.

⁵⁵ In conjunction with the Fire-Threat Map, the CPUC amended GO 95 to add regulations to enhance fire safety in Tier 2 and Tier 3 fire threat areas.

⁵⁷ California Independent System Operator Corporation. CA ISO is a private, non-profit corporation that manages the high voltage power grid and the wholesale energy market for most of California. CA ISO was created in 1997 as part of an effort to restructure the wholesale electric industry in California. CA ISO is not a regulator. CA ISO’s power over electric transmission utilities derives from the Transmission Control Agreement entered into between CA ISO and the utilities. In the Transmission Control Agreement the utilities agree to, among other things, properly maintain electric transmission lines, provide CA ISO with all current maintenance policies (referred to as a Transmission Owner Maintenance Practices (TOMP)). Failure to comply with the terms of the Transmission Control Agreement could be a breach of contract.

⁵⁸ PG&E abbreviation for Transmission line

Define improvements in our frequency, tools or processes to find efficiencies in the patrols/inspections.

Perform benchmarking and analysis to measure current practices

Determine frequency of patrols/inspections (are we doing more than industry standard)

Analyze current patrols/inspections work methods (i.e. crew size)

Under the heading “Scope”

Patrols and Inspections for Transmission Lines

Frequency of patrols/inspections

Work methods/practices (tools, crew size, processes)

Unit costs measurement

Emails obtained from PG&E established committee members subsequently met with other electrical utilities for the purpose of benchmarking inspection and patrol practices of those utilities and submitted to a national electrical utilities association a patrol and inspection survey to be distributed to and completed by its members. This was done despite the fact the 2010 Quanta Technologies “Structures” Report⁵⁹ included data on patrol and inspection frequency gathered from a survey of 104 electrical utilities worldwide conducted in 2003 by the International Council on Large Electrical Systems, also known as Cigre’⁶⁰. According to the Cigre’ study 74% of the companies utilized “Walking” inspections, 63% utilized “Climbing” inspections and 66% utilized “Helicopter” inspections. The average inspection period for each type of inspection was 1.4 years for walking, 1.5 years for helicopter and 4.2 years for climbing.

The lack of change in inspection and patrol frequency in subsequent revisions of the ETPM indicates that reduction of inspection and patrol frequency was not approved. The committee was also exploring opportunities to reduce costs by finding more efficient work practices. A key component of this inquiry was “Unit cost measurement.” The evidence indicates that PG&E reduced costs by reducing the unit cost for each inspection and patrol. The evidence shows that this was accomplished by reducing the thoroughness of the inspections and patrols.

Review of internal PG&E documents, including emails, and interviews with PG&E personnel determined that the unit cost for inspection and patrol is calculated based upon the time that a troubleman spends inspecting an individual structure. Based upon interviews it was established that each year PG&E determines an average unit cost for each type of inspection or patrol. The unit cost would be translated into time and multiplied by the total number of structures on an individual line. The result would be the time allotted for the inspection or patrol of that transmission line. Prior to the start of each calendar year each transmission region headquarters was provided a list of inspections and patrols, including the allotted time, scheduled for the following year. The inspection and patrol budgets for each transmission region headquarters was based upon the total allotted time for all scheduled inspections and patrols. The evidence established that the Business Finance Department of the Electric Transmission Division sent monthly budget reports tracking spending, both monthly and year to date, for inspection and patrol against budget allocations. The reports were color-coded - red for over budget and green

⁵⁹ In 2009 PG&E hired Quanta to evaluate its electrical transmission system. In 2010 Quanta submitted to PG&E the Transmission Line Component Management Report which included the Structures Report.

⁶⁰ Cigre is an international association of electrical transmission companies located in Paris, France. Cigre was established in 1921 and claims 1250 member organizations from 90 countries.

for under budget. The evidence also established that salary incentives (bonuses) of Transmission Line Supervisors and Transmission Superintendents was, at least partially, based upon compliance with the inspection and patrol budget.

Based upon the evidence, PG&E reduced costs of inspection and patrol by reducing the amount of time budgeted for the inspections and patrols. As expected, the result of these reductions was less thorough and less complete inspections and patrols.

VII. TROUBLEMEN AND TRAINING

a. Creation of the Troubleman Program

The evidence established the inspection and patrol of the transmission lines is done by the “Troublemen.” Similar to the inspection and patrol policy, the position of Troubleman has evolved and changed. Based upon interviews with former PG&E employees from the 1980s, the evidence established the position of Transmission Troubleman was created in the mid-1980s. The earliest reference to troublemen in documents provided by PG&E is found in the 1987 “Routine Patrolling and Inspection of Transmission Lines” policy bulletin.

According to the original Transmission Line Supervisors interviewed, the Transmission Troubleman position was initially intended to be a qualified and experienced transmission line expert. According to one of the original Transmission Lines Supervisors the “intent here was to have people that knew exactly what to look for, how to establish priorities on repairs, and would, would keep it operating.” In addition to the physical demands and climbing requirements of the position, the Troublemen were also expected to take ownership of individual transmission lines and be accountable for the continued safe and reliable operation of that line.

b. Troubleman Training

The 1987 “Routine Patrolling and Inspection of Transmission Lines” policy memo established training requirements for the new Transmission Troublemen⁶¹. In the late 1980s, training for Transmission Troublemen included periodic meetings of all of the Transmission Line Supervisors and Troublemen. At these meetings issues and problems were shared and discussed. According to one of the original Transmission Line Supervisors, a supervisor was designated to document and/or collect all of the examples presented at the meetings in order to compile a training manual for future Transmission Troublemen. According to several of the original Transmission Line Supervisors and Troublemen, an inspection checklist was developed based in part on the information being shared at these meetings. Appendix A to the 1987 “Routine

⁶¹ “It is the responsibility of each Region to ensure proper training of personnel conducting line patrols. This is to be accomplished through use of periodic training classes for all transmission troublemen and any other personnel who may be called upon to patrol. The training should include a review of this bulletin, other T&D bulletins as appropriate, patrol safety, Engineering Drawing 022168, and G.O. 95 requirements. The use of available videotapes (spacer damage, infrared patrolling, etc.) is encouraged. Particular attention should be given to the specific items listed on the code sheet that is provided with this bulletin. The Transmission and Distribution Department will assist the Regions in setting up and conducting the training classes.”

Patrolling and Inspection of Transmission Lines” policy memo appears to be the earliest form of the checklist.

In addition to eliminating routine climbing inspections, reducing the frequency of inspections, and creating an Inspection Frequency Checklist, the 1995 ES Guideline eliminated the training requirement for troublemen. Notwithstanding that, the training requirement was dropped from the ES Guideline, the evidence does show that PG&E had created a Troubleman training program. According to one of the former PG&E employees involved in the creation of the 1995 ES Guideline, one of his duties from 1995 until 2005, was to provide direct annual training on inspection and patrol policies and requirements to all Troublemens. According to this former employee, a decision was made in 2005 to eliminate direct training of Troublemens. Instead, the Transmission Line Supervisors were provided training and expected to train the Troublemens under their supervision.

In December 1997, PG&E filed its first “Transmission Owner Maintenance Practice (TOMP) with the CA ISO⁶². In the TOMP the term “Troubleman” was replaced with the term “Inspector”. According to the definition of terms, an Inspector is a “PG&E employed inspector commonly referred to as “troubleman.”

In the 2002 “Transmission Owner Maintenance Practice” (TOMP) the term Inspector was replaced with “Qualified Company Representative (QCR). According to the Definition of Terms, a QCR is “a person, who by reason of training and work experience is able to complete an accurate assessment of the electric transmission facilities that he/she is asked to inspect.” The required training and work experience necessary to be considered a QCR was never defined.

In the first version of the ETPM (2005), the term Troubleman does not appear. Instead, the ETPM continues the use of the term QCR. The 2005 ETPM definition of a QCR differed from the definition in the TOMP – “A Company representative who, by knowledge, required training, and/or work experience, is able to prepare an accurate and complete assessment of electric transmission facilities.” The definition of a QCR continued to evolve through each revision of the ETPM. According to the 2018 ETPM a QCR is “A company representative, who, by knowledge, required training and/or work experience, is able and allowed to perform a specific job. For the purposes of this manual, QCR refers to an employee qualified to prepare an accurate and complete assessment of electrical transmission facilities.” The ETPM does not define the knowledge, training or work experience required of a QCR.

Every QCR who has inspected or patrolled the Caribou-Palermo line since the publication of the ETPM in 2005 was interviewed. All of the QCRs denied having receiving any formal training on how to perform an inspection or patrol. According to all of the QCRs, any inspection and patrol training was limited to filling out reporting forms and notifications for any issues

⁶² California Independent System Operator Corporation. CA ISO is a private corporation that operates the high voltage grid in California. CA ISO monitors the flow of power in transmission lines that providers use, operate wholesale electricity markets for energy and ancillary services, and maintain transmission maintenance standards. Transmission owners (TO’s) mutually agree to contract with them. CA ISO was created by the State of California in 1997 in an effort to restructure the wholesale electric industry in California.

identified during an inspection or patrol. All of the QCRs asserted that the only training on how to perform an inspection or patrol was via informal mentoring by other, more experienced, Troublemens.

The evidence also established that some of the QCRs performing inspections and patrols of the transmission lines in the Feather River Canyon had little or no transmission line experience before becoming a Troubleman.⁶³

Although PG&E documents and management personnel assert that troublemen receive training on the requirements of the position, the troublemen themselves unanimously denied having received any formal training on conducting inspections and patrols and assessing wear. The troublemen also denied being provided with any records (for example tower schematics) specific to the transmission lines being inspected. The lack of specific training and records was especially significant for troublemen inspecting the Caribou-Palermo line. The hanger holes, according to the original schematics, were 1 1/8" in diameter and the C hooks were 15/16" thick at the contact point. On other Feather River Canyon transmission lines the C hooks were the same size but the hanger holes were significantly larger. The evidence established that the Troublemens' lack of knowledge of the different sized hanger holes contributed greatly to the failure of PG&E to recognize the degree of wear on the C hook on Tower 27/222.

The evidence established that, despite the lofty goals of the originators of the troubleman position, and the designation of QCR by PG&E, by 2007 the inspections and patrols of the Caribou-Palermo line were being conducted by inexperienced, untrained and unqualified troublemen. Both of the "Detailed Ground Inspections (2009 and 2014) and seven of the ten Annual Air Patrols on the Caribou Palermo were completed by troubleman who had little or no prior transmission experience, and no formal training on performing inspections and patrols. This is contrary to the third Revision of the ETPM which requires that the "QCRs must be thoroughly familiar with all of the facilities, equipment, safety rules and procedures associated with the facilities and equipment." Under the ETPM the QCRs are supposed to be looking at components and estimating wear by percentage of material lost. In order to judge material loss a troubleman would have to know what a component looked like at 100%. The majority of the troubleman sent to inspect and patrol the Caribou-Palermo line had no idea what the C hooks and hanger holes were supposed to look like. Because of their lack of knowledge, experience, and training, the troubleman could not have been expected to identify the wear. The overwhelming

⁶³ One former troubleman assigned to the Caribou-Palermo line admitted that although he was a journeyman lineman, he worked in distribution (almost 30 years) and had never worked as a transmission lineman prior to becoming a transmission troubleman. Another troubleman assigned to the Caribou-Palermo line was also a distribution lineman prior to becoming a transmission troubleman and admitted his only experience with transmission lines above 60kV was during his apprenticeship. According to a former Table Mountain HQ Transmission Line Supervisor, this Troubleman had so little experience with transmission lines that he was assigned to work with the transmission lineman until the Supervisor was forced by the union to allow the troubleman to conduct inspections and patrols. Another former troubleman assigned to the Caribou-Palermo line had worked on transmission lines as a journeyman lineman until PG&E split distribution and transmission in the mid-80s. The former troubleman worked in distribution exclusively for over twenty years before becoming a transmission troubleman.

evidence clearly established that troublemen and linemen inspecting and patrolling the Caribou-Palermo line did not meet the standards established in the ETPM.

VIII. FAILURES IN MAINTENANCE, REPAIR AND REPLACEMENT RECORD KEEPING ON THE CARIBOU-PALERMO LINE

As part of the Camp Fire Investigation, all maintenance/repair/replacement records for the Caribou-Palermo line were requested and obtained from PG&E. Any and all records received from PG&E pertaining to Towers 27/222 and 24/199 were reviewed in depth. The only records of any maintenance/repair/replacement located for these towers related to the replacement of parallel groove connectors⁶⁴ { [Attachment – parallel groove connector](#) } on each tower in 2016.

a. Hanger Brackets

During the investigation it was observed that “hanger brackets” (bolted add-on brackets for hanger plates for the hole that the C hooks hung from) { [Attachment – add-on hanger bracket](#) } had been added to the transposition arms of towers 27/222 and 24/199. Similar hanger brackets were not found on other transposition towers and the brackets were not shown on the original plans for the transposition arms. After being removed from the towers, the transposition arms were examined. Some of the original hanger holes displayed significant “keyhole” wear. { [Attachment – significant keyhole wear](#) } PG&E was unable to produce any records of when, why, and by whom the hanger brackets had been added. Based upon the keyhole wear observed on the original hanger holes, the only reasonable conclusion to be drawn was someone at PG&E at some time in the past had noticed the keyhole wear and was concerned enough to take action.

b. Parallel Groove Connectors

As previously mentioned, during the inspection of Tower 24/199 investigators noticed a parallel groove connector on the jumper conductor. { [Attachment – parallel groove connector on 24/199 jumper](#) } It appeared to investigators that, at some previous time the jumper conductor had been shortened and spliced together using the parallel groove connector. Investigators also observed that the right phase insulator string appeared to be less aged than the left phase insulator and, as a result of the shorter jumper conductor, was not hanging plumb. From the ground, investigators also observed black marks on the tower leg nearest the right phase insulator string. On the ground below Tower 24/199, investigators found an old insulator string. The old insulator string was complete except for the C hook.

PG&E was unable to produce any records of when, why, and by whom the parallel groove connector had been added to the jumper. No explanation was provided as to why the parallel groove connector on the jumper conductor was not replaced when all of the other parallel groove connectors in the tower were replaced in 2016. PG&E was also unable to produce any records as to the replacement of the insulator. Based upon the observations of investigators, the only reasonable conclusion that could be drawn is that at some time in the past the jumper conductor made contact with the tower leg, causing the blackening observed on the tower leg. This damaged the jumper conductor, necessitating the removal of a portion and replacement of the

⁶⁴ Parallel groove connectors are used to connect two parallel pieces of power line (conductor).

insulator. It was also clear, based upon the change in the wear pattern on the C hook observed by the FBI metallurgist, the C hook was not replaced when the jumper conductor was shortened and the insulator changed.⁶⁵

Although no records were found to explain why, the evidence established that as part of a scheduled Detailed Ground Inspection in 2009, the troubleman assigned to complete the inspection of the Caribou-Palermo line was instructed to document all towers with parallel groove connectors and create work orders for replacement of the parallel groove connectors. In total, the “Transmission Line Inspection Datasheet” completed by the troubleman as part of the report of the 2009 Detailed Ground Inspection, lists 85 towers for “Rpl Connectors.” For each tower, a notification number was assigned and a “Corrective Work Form” was generated. Copies of these Corrective Work Forms for towers 24/199 and 27/222 were obtained during the investigation. Replacement of the parallel groove connectors was designated, according to the Corrective Work Forms as “Priority F – Schd Compl Yr 1+.”⁶⁶ At the time the Corrective Work Forms were created, the April 2009 revision of the ETPM was in effect. The priority code F did not exist in the 2009 ETPM. The priority codes listed in the 2009 ETPM were A, C, G and P. Prior to the April 2009 revision of the ETPM, numerical (as opposed to letter) priority codes were used. The priority code F did not come into existence until the 2011 revision of the ETPM. According to the 2011 version of the ETPM, Priority Code F is defined as “Corrective action is recommended within 24 months from the date the condition is identified, except for nominations notifications or system wide initiatives identified by Asset Strategy (e.g., bridge bonding, shunt splicing), which can have due dates beyond 24 months.”

According to the Corrective Work Forms for Towers 27/222 and 24/199, the parallel groove connectors were re-assessed during the 2011 Annual Air Patrol. A note dated August 16, 2011, states “per (troubleman) on 8/1/11 during patrol OK to move out 2 yrs.” On November 10, 2009,⁶⁷ PG&E Applied Technology Services (ATS)⁶⁸ published a Lab Test Report entitled “Analysis of bolted aluminum transmission connectors from various PG&E sites.” Based upon the ATS Lab Test Report the problems identified were internal to the connector. There is nothing in the report documenting any outward signs of the interior wear. The question of how a troubleman flying in a helicopter could assess the wear inside the bolted connectors was never answered⁶⁹.

A note on both Corrective Work Forms dated January 10, 2012, states “move required end date to 11/30/2015.” No explanation is given as to why the required end date was moved back three

⁶⁵ According to PG&E and all transmission lineman interviewed, it was standard practice to replace the used C hook when replacing an insulator string. While inspecting the Caribou-Palermo line in February and March 2019 investigators noted another tower in which the insulator strings had recently (post Camp Fire) been changed but the C hooks were re-used.

⁶⁶ In a written response to a CPUC data request PG&E wrote “Between 10:41 a.m. and 10:42 a.m. on October 4, 2009, all 85 notifications were changed from Priority Code G to Priority Code B conditions by {name redacted}, the same PG&E contractor who changed the Priority Code on LC Notification 103995542. Between 5:38 p.m. and 5:39 p.m. on October 27, 2009, all 85 notifications were changed from Priority Code B to Priority Code F conditions by {name redacted}.”

⁶⁷ Approximately three months after the completion of the 2009 Detailed Ground Inspection of the Caribou-Palermo line.

⁶⁸ Applied Technology Services is PG&E’s internal engineering and scientific research lab. ATS was previously known as the PG&E Department of Engineering Research.

⁶⁹ Interior wear on parallel groove connectors may cause the connector to show excessive heat in an infrared inspection. None of the Annual Air Patrols included infrared inspections.

years. PG&E addressed this issue in a Data Response to CPUC. According to PG&E's written explanation, the Corrective Work Forms were initially assigned priority code G – required repair/replacement within 12 months. On October 4, 2009, the priority code was changed to Priority B – required repair/replacement within three months in the PG&E SAP system. According to PG&E, the priority code was changed again on October 27, 2009, to Priority F. Also according to PG&E's written response to the CPUC, because the replacement of the connectors was a Priority F and was “for nominations[,] notifications[,] or systemwide initiatives identified by Asset Strategy (e.g., bridge bonding, shunt splicing), which can have due dates beyond 24 months” no documentation or reason was required for re-assessment. The quoted language is from the 2011 version of the ETPM. The 2009 version of the ETPM stated “Any reassessment must have sound business or technical supporting reasons and documentation on file and recorded in SAP.” No explanation was ever provided as to how and why a priority code and exception which did not come into existence until January 2011, was being applied in October 2009.

This raised serious questions as to the accuracy of the few maintenance/repair/replace records PG&E was able to locate. The final note on the Corrective Work Form is dated June 29, 2016, and reads that the connectors were replaced on June 18, 2016. There is no record as to why the parallel groove connector on the jumper conductor of Tower 24/199 was not replaced.

In total, almost seven years elapsed between the identification of the defective parallel groove connectors on the Caribou-Palermo line and the replacement of those connectors. At least ten years elapsed from the time replacement of parallel groove connectors were identified as a fire⁷⁰ mitigation. No valid explanation for the extended amount of time was ever provided.

c. The “Deteriorated Transmission Equipment Replacement Program.”

In 2007, PG&E introduced the “Deteriorated Transmission Equipment Replacement Program.” According to internal documents, the Deteriorated Transmission Equipment Replacement Program was included in PG&E's capital spending five-year plan and was funded through 2015.

PG&E was unable to produce any documentation as to the budget or eligibility requirements for the Deteriorated Transmission Equipment Replacement Program. Although the name of the program implied that the program was established to replace deteriorated equipment, no records of funding or eligibility requirements for the program were found. During interviews and testimony of PG&E employees familiar with the program, it was simply a “bucket” of money available to fund capital improvements on transmission lines regardless of the condition of the line or its components. Based upon the evidence the name Deteriorated Transmission Equipment Replacement Program did not accurately depict the true nature of the program.

⁷⁰ Parallel groove connectors were identified as a fire risk in the October 2006 Risk Analysis of Urban Wild Land Fires. See section XVII – “Knowledge of Risk/Consequence” for details re: the 2006 Risk Analysis.

d. The Caribou-Palermo 7/55-8/64 Replacement Towers project

A portion of the Caribou-Palermo line was nominated for replacement through this program by the Maintenance and Construction Engineer⁷¹ (M&C Engineer) assigned to the North Area⁷². According to a PG&E internal budget document “Request for Advance Authorization of Expenditures in Accordance with Capital Expenditures Policy,” \$800,000 was initially requested “for preliminary engineering and purchase of long lead-time material to replace conductor and tower structures on a section of the Caribou-Palermo line between structures 7/55 and 8/64.”⁷³ { [Attachment – Google Earth Map showing 7/55-8/64](#) } The initial Advance Authorization specifically stated:

“There have been multiple conductor failures on this line due to conductor being annealed⁷⁴ and parting.⁷⁵ Since 2002 there have been 8 event reports created on this line. 5 of which was equipment related failures.”

“It is very time consuming and costly to correct any failures that occur in this dilapidated line section, especially during the winter months when failures are more likely.”

“The probability of that failure is imminent due to the age of both the towers and the conductor.”

“The intent of this project is to be pro-active and replace this deteriorated line section in a controlled and planned manner instead of under emergency conditions.”

The initial Advance Authorization for \$800,000 was not approved by PG&E’s Electric Asset Strategy Division, and instead, upon re-writing and re-submission, was reduced to \$200,000 by the then Director of the Electric Asset Strategy Division. The second Advance Authorization did not include the descriptor “dilapidated” or the prediction of imminent failure but did state: “Replace deteriorated structures, conductor, insulators, and hardware between structures 7/55 and 8/64.” The second Advanced Authorization was approved. The project was named the “Caribou-Palermo 7/55-8/64 RPL Towers” project.

A “Project Manager”⁷⁶ was assigned to this project. According to internal PG&E documents, between 2007 and 2009 the Project Manager spent almost \$800,000 conducting engineering studies of the proposed new tower sites and preparatory work, including building a road to allow access to the proposed new tower sites. In 2009, the project was canceled as, according to internal emails, “this project fell below the cut line for 2010 approved projects.” According to a 2014 email from a member of PG&E’s Capital Accounting Department the project “was canceled due to Asset Management’s reprioritization and is not expected to be resumed.” During an email chain, starting on November 2, 2009 and ending on January 22, 2010, the Project

⁷¹ Although the job title was Engineer this person was not an engineer and had no engineering education or experience. This person described his position as “You’re kind of a liason between the field crews and both civil and electrical engineers.”

⁷² Includes Sacramento District, Table Mountain District, Eureka District and Lakeville District

⁷³ On the southside of the Feather River between Caribou Road and Beldon.

⁷⁴ According to the M&C Engineer “annealed usually means a little more brittle.”

⁷⁵ The M&C Engineer also identified the conductor as copper and not aluminum because “we wouldn’t put shunts on aluminum.”

⁷⁶ A project manager is a person assigned to supervise a specific project.

Manager made the following arguments for continuing and completing the Caribou-Palermo 7/55-8/64 RPL Towers project to the Program Manager⁷⁷ assigned to that major work category:

“If it is not funded for permitting etc., we could be picking up these towers out of the Feather River Canyon when they fall over.”

“We have already notified FERC⁷⁸ of the project and it will not look good if towers we have identified as deteriorated fall over in the canyon because we did not perform the work due to funding.”

Despite the representations of the Project Manager the project was not reinstated by the Program Manager.

During interviews with investigators and testimony, the author of the Advance Authorizations⁷⁹ and the Project Manager separately asserted they had no factual basis for the statements about the condition of the Caribou-Palermo line towers and downplayed the statements as exaggerations made while advocating for a project.

e. The Rock Fire

A Corrective Work form⁸⁰ was located for replacement of a failed connector on Tower 11/87 in September of 2008. The Corrective Work Form was generated based upon a non-routine patrol of the Caribou-Palermo line generated by a power interruption on the line on September 30, 2008.

On September 30, 2008, at approximately 2:30 p.m., the Plumas National Forest Headquarters received a report of a fire near the Rock Creek Dam. {[Attachment – Google Earth map of Rock Creek Dam](#)} The fire was named the Rock Fire. This fire burned approximately five acres in the Plumas National Forest. Origin and Cause investigators from the United States Forest Service (USFS) investigated the fire and determined the origin to be directly below Tower 11/87 of the Caribou-Palermo line. The Rock Fire was determined to have been caused by an equipment failure, specifically the failure of a connector on a jumper line, on Tower 11/87. PG&E records obtained by the USFS investigators showed PG&E experienced an interruption on the Caribou-Palermo line at approximately 2:02 p.m. on September 30, 2008. No records of a root cause investigation of the failure of the connector were found. Consistent with PG&E’s practice, as supported by the evidence, PG&E did not conduct climbing or aerial inspections on other Caribou-Palermo line towers with similar connectors.

f. Tower Collapse

On December 21, 2012, a catastrophic failure occurred on the Caribou-Palermo line that generated six corrective work forms. Five towers, 22/187 through 23/191, collapsed and a sixth

⁷⁷ PG&E divides electrical transmission work (repair/replace/maintain/improve) into “major work categories” (also referred to by PG&E personnel as budgetary “buckets”). The program manager oversees all projects within a major work category.

⁷⁸ It appears that this is a reference to a Federal Energy Regulatory Commission (FERC) rate case. In support of requests for rate increases PG&E files a rate case with FERC. To justify the proposed rate increase in the rate case PG&E lists planned capital projects with cost projection. Projects are generally forecasted five years in the future.

⁷⁹ A former Maintenance and Construction (M&C) engineer.

⁸⁰ A PG&E form generated by field personnel to document and describe problems, defects, wear or other conditions on transmission assets requiring maintenance/repair/replacement.

tower, 23/192, {[Attachment – Google Earth map of towers](#)} was badly damaged to the extent that it needed to be replaced.

A PG&E Civil Engineer investigated the incident and did not author a report, but did communicate his conclusions in an email. He determined Tower 22/188 initially collapsed causing a domino effect that pulled down towers 22/187, 22/189, 23/190 and 23/191. He concluded the collapse of Tower 22/188 was caused by the failure of the “stub angles”⁸¹ possibly due to strong wind and/or icing wet ground conditions. No formal “Root Cause Analysis” was conducted. Although he concluded his analysis by stating “Due to this failure phenomenon, it would be advisable to inspect towers with similar line angle on this line to ensure no other foundations had experienced similar uplift during same wind storm.” The evidence established none of the other Caribou-Palermo line tower foundations were inspected. Again, this is consistent with PG&E’s practice of not following up on clearly established potential safety and/or maintenance issues.

The six towers were temporarily replaced by a “Shoe Fly,” consisting of fifteen wooden poles, constructed along Camp Creek road. {[Attachment – Google Earth map of Shoe Fly](#)} The Shoe Fly was completed by January 30, 2013. The Shoe Fly remained in service until the six towers were permanently replaced. The six towers were eventually, permanently, replaced by modern H-Frame tubular steel pole structures in 2016.

g. Center Phase Conductor on Tower 24/200

On January 10, 2014, a PG&E employee doing “crew work” documented a problem on the center phase conductor on Tower 24/200. Pictures attached to the Corrective Work Form appear to show a damaged conductor. In addition, the photos appear to show damage to the corona shield⁸² (part of the hot end attachment hardware) and melting on the conductor below the corona shield. Another photograph appeared to show a piece missing from another section of the conductor and blackening on the conductor a few inches from that missing piece. The Corrective Work Form stated the conductor was repaired on 5/1/2014, but did not indicate that either the hot end attachment hardware generally, or the corona shield specifically, were replaced. No records were found indicating a root cause analysis was ever done to determine the cause of the damage to the conductor and corona shield.

h. Broken J Hook

On October 19, 2016, a J hook in Tower 11/99 broke when a member of a PG&E contractor painting crew attempted to use a cross brace attached to the J hook for support. According to the PG&E report on the incident “[I]t appears as though about 20% of the thickness of the bolt had been compromised through corrosion.” Although the incident was reported to and investigated by PG&E, nonetheless true to the company’s practice, the failure of the J hook did not cause inspections of J hooks in other similar towers.

⁸¹ The stub angles connect the foundation to the base of the tower.

⁸² Corona discharge is the leakage of electric current into the air around high voltage conductors. A corona shield is a disc of conductive material designed to absorb the destructive corona discharge and protect the attachment hardware.

IX. INSPECTION AND PATROL OF THE CARIBOU-PALERMO LINE

Based upon PG&E records and flight records obtained from their contracted helicopter company, the evidence established inspections and patrols of the Caribou-Palermo line did not comply with the standards set forth in the ETPM and did not meet the requirements of the law or the regulatory agencies.

Routine inspection and patrol records for the Caribou-Palermo line were obtained back to 2001. According to PG&E, no inspection or patrol records prior to 2001 could be located. Based upon the inspection and patrol records the evidence established that the Caribou-Palermo line was subjected to “Detailed Ground Inspections” in 2001, 2003, 2005, 2009 and 2014. Based upon the inspection and patrol records the evidence established the Caribou-Palermo line was subjected to “Annual Aerial Patrols” in 2001, 2002, 2004, 2006-2008, 2010-2013, 2015-2018. There is no record of any climbing inspections, detailed ground inspections above 10’ or aerial inspections conducted on the Caribou-Big Bend section of the transmission line. All of the inspection and patrol records were reviewed and all of the troublemen/linemen who conducted the inspections and patrols were interviewed.

Because it was the last “Detailed Ground Inspection” of the Caribou-Palermo line prior to the Camp Fire, the 2014 Detailed Ground Inspection became a focus of the investigation. The 2014 Detailed Ground Inspection was memorialized in a 60-page “Report” which included an “Operational Control Ticket,” a “Transmission Line Data Inspection Sheet,” a “Priors” list⁸³ and a “Transmission Object List.”⁸⁴ According to the report, the detailed ground inspection was completed between August 5, 2014 and August 13, 2014 by a troubleman and a lineman. Four issues that necessitated the creation of a Corrective Work Form were documented in the report: flashed insulator bells were found on tower numbers 21/180A, 26/215 and 16/129 and a broken insulator bell was observed on tower number 27/226. The report was signed by both the troubleman and the lineman on August 28, 2014 and the Transmission Line Supervisor on September 3, 2014. The evidence established that the lineman was assigned to “assist” with the inspection because the troubleman, who was nearing retirement, was no longer physically able to hike/climb to many of the towers on the Caribou-Big Bend section of the line. The evidence also established that the troubleman and lineman were also assigned to take line clearance measurements (which included date, time and air temperature) at pre-determined intervals along the transmission line to determine compliance with new NERC clearance guidelines.

The 2014 Detailed Ground Inspection Report was subjected to intense scrutiny. PG&E records, including troubleman and lineman daily timecards, were obtained for comparison against the report. The evidence established the following:

⁸³ A list of previously documented issues pending an open corrective work form.

⁸⁴ The Transmission Object List lists every structure on the transmission line. In 2014 each structure was identified by its tower number, a SAP equipment ID number, a physical description of the structure and the GPS coordinates for the structure. For each structure the list has an Inspection Result section in which the QCR checks the applicable box and a notes section for the QCR to write any notes about the structure or record any problems/issues/defects observed.

- 1) The detailed ground inspection started on July 24, 2014 and ended on August 27, 2014. Although the report states that the physical inspection of the Caribou-Palermo occurred on August 5, 6, 7, 13, and 14; emails, records and interviews established that an unknown, and undocumented number of towers was inspected on August 27.
- 2) In addition to the troubleman and lineman, four linemen whose names do not appear in the report assisted with the inspections on August 27, 2014. According to emails and helicopter records, prior to August 27, 2014, the Transmission Line Supervisor scheduled a helicopter to fly the lineman to difficult to reach towers. Four additional lineman were assigned to assist with inspections on August 27, 2014. No records indicate which towers were inspected on August 27, 2014 and which lineman inspected which tower.
- 3) The allotted time⁸⁵ for the 2014 Caribou-Palermo Detailed Ground Inspection was 89.5 hours. Based upon time cards, 121 hours were initially billed to the Caribou-Palermo Detailed Ground Inspection. After the inspection was complete, a secretary changed billing records to re-assign hours billed to the inspection of the Caribou-Palermo line to lower the total hours billed to the Caribou-Palermo Detailed Ground Inspection to 91 hours.
- 4) The lineman assigned to assist with the 2014 Detailed Ground Inspection of the Caribou-Palermo line had previously completed some troubleman training but focused mainly on “Switching.” The lineman did not recall receiving any training on performing inspections and patrols other than informal training by troublemen. No evidence was found to establish the four other linemen who performed inspections had previously completed any training on inspection and patrol. Additionally, the evidence established the lineman did not complete his inspections under the supervision of the troubleman. The evidence established that the troubleman divided the Caribou-Palermo line between himself and the lineman, and each conducted an independent inspection of the towers in the assigned section. The lineman was assigned to inspect the Caribou-Big Bend section of the line.
- 5) Recall the six steel towers numbered 22/187 through 23/192 ceased to exist in December 2012 due to the catastrophic failure and were replaced by a “Shoe Fly” consisting of 15 wood poles in January 2013 until the towers were permanently replaced in 2016. However, according to this 2014 report, those missing towers were physically inspected in August 2014, including a previously documented issue on tower 22/188. The previously documented issue on Tower 22/188 was the replacement of the parallel groove connectors identified during the 2009 Detailed Ground Inspection.
- 6) The lineman assigned to assist with the 2014 Detailed Ground Inspection of the Caribou-Palermo line was not trained to complete the ground clearance

⁸⁵ The amount of time budgeted for each inspection/patrol. See section VI – “Reduction of Unit Costs for Inspections and Patrols” and subsection A – Expense Budget of section XI – “Budgetary Considerations”

measurements. According to PG&E policy, clearance measurements must include the measurement, and the date, time and air temperature when the measurement was taken. Although the report shows the clearance measurements were done concurrently with the inspection, the evidence established they were not. The lineman said he was not initially instructed to perform the clearance measurements and did not do so during his initial inspection. He went on to say it was not until after he had completed his inspection of the Caribou-Big Bend section of the line and submitted his report that he was told to perform clearance measurements. He stated he was ordered⁸⁶ to return to the field and perform the clearance measurements. He stated he was not initially told he needed to record the time of each measurement. According to the lineman, he returned to the Caribou-Big Bend Section of the line with the "Transmission Object List" and obtained the measurements. He stated he then added the measurements and air temperature to the already completed "Transmission Objects List." He then submitted his report a second time and was informed of the requirement to record the time of each measurement. He said that he then estimated the time he had taken the measurements and added those time estimates to his report. The result was the dates and times of the clearance measurements documented in his reports were not accurate.

Written documents clearly establish the Table Mountain Transmission Line Supervisor knew the dates inspected on the Transmission Object List were wrong. Written documents also clearly established that he knew that for some of the towers the name of the inspector conducting the inspection was wrong. The evidence also establishes he knew the line clearance measurements did not occur on the dates listed on the Transmission Object List. Despite specific knowledge the report was not accurate; the Transmission Line Supervisor approved and signed the report.

Although the investigative team did not scrutinize other patrols and inspections of the Caribou-Palermo line to the extent devoted to the 2014 Detailed Ground Inspection, similar issues were found in other inspection and patrol reports. The 2009 Detailed Ground Inspection of the Caribou-Palermo line was conducted by the same troubleman who conducted the 2014 Detailed Ground Inspection. There is evidence that a lineman, who was not mentioned or listed in the 2009 report, assisted with that inspection also.

The 2012 Annual Air Patrol Report was also found to be inaccurate. In 2012, another troubleman, was assigned to complete the patrol. According to the date-inspected line on the report, this troubleman started his patrol on August 6, 2012. The patrol was interrupted at Tower 16/130 due to "fire." The remainder of the patrol was completed by yet another troubleman. However, the report only lists the assigned troubleman and lists the "Date Inspection Completed" as August 6, 2012. In an email dated August 13, 2012 from the assigned troubleman to the Transmission Line Supervisor, the troubleman stated he would be going out on medical leave and had updated the subsequent troubleman on the "caribou-palermo partially flown on 8-6...not compl't'd do to the fire in the canyon." According to the assigned troubleman, he was

⁸⁶ The lineman was not clear about who ordered him.

unable to complete the patrol prior to going out of medical leave and the another troubleman completed the patrol sometime after August 21, 2012.

One former troubleman admitted he did not like flying the Feather River Canyon transmission lines and, whenever possible, assigned an available lineman to complete the routine air patrols. According to the former troubleman, after the lineman completed the air patrol the troubleman would use the lineman's notes to complete the patrol report and submit the report as if the former troubleman had personally completed the patrol.

The evidence also established during the 2013 and 2015 Annual Aerial Patrols of the Caribou-Palermo line, which were completed by different troublemen, towers 22/187 through 23/192, which ceased to exist in December 2012, were "inspected" and the pre-existing condition (parallel groove connectors) on Tower 22/188 was checked.

The inspection and patrol records clearly established that between 2001 and 2018 aerial patrol by helicopter was the primary method of inspection and patrol for the Caribou-Palermo line. As such, the thoroughness of aerial patrols of the Caribou-Palermo line was examined closely. The evidence established the thoroughness of the aerial patrols declined through the years.

Troublemens assigned to inspect the Caribou-Palermo line from 1987 through 2018 were interviewed regarding the thoroughness of air patrols. A former troubleman who conducted air patrols prior to 2001, described helicopter patrols of the Caribou-Palermo line as taking one to one and half days. One former troubleman explained his protocol for aerial patrols included instructing the pilot to fly low enough and slow enough that the troubleman could step out onto a tower if necessary. On a report of the 2001 Annual Air Patrol was a handwritten note "10 hrs." According to the former troubleman who performed the 2001 air patrol, 10 hours was the approximate flight time for the patrol of the Caribou-Palermo line.

During the investigation, helicopter flight records from 2011 through 2018 for Caribou-Palermo line aerial patrols were obtained from a local helicopter company contracted by PG&E to assist with aerial patrols. According to that company, flight records and billing records prior to 2011 no longer existed.

In 2011, flight records document 3.2 hours for the aerial patrol of the Caribou-Palermo line. In 2012, the aerial patrol of the Caribou-Palermo line was interrupted by fire and complete records for the patrol were not located.⁸⁷ In 2013, a troubleman completed aerial patrols of the Caribou-Palermo line, Caribou-Westwood and Palermo-Pease transmission lines (990 total structures) in 7.6 hours. In 2015, a troubleman completed the aerial patrols of the Caribou-Palermo line, Cresta-Rio Oso, Oroville-Thermalito-Table Mt #1, Oroville-Thermalito-Table Mt #3, Oroville-Table Mt (CDWR), Hamilton Branch-Chester, Collins Pine Tap and Palermo-Pease transmission lines (1,430 total structures) in 6.1 hours. In 2016, a troubleman completed the aerial patrols of the Caribou-Palermo line, Grizzly Tap, Cresta-Rio Oso, Butte Valley-Caribou and Plumas Sierra Tap transmission lines (1050 total structures) in 6.8 hours. In 2017, a troubleman completed the aerial patrols of the Caribou-Palermo line, Butt Valley-Caribou and Hamilton Branch-Chester transmission lines (813 total structures) in 4.9 hours. In 2018, a troubleman completed the aerial

patrols of the Caribou-Palermo line, Grizzly Tap, Grizzly Tap SVP, Plumas-Sierra Tap, Butt Valley-Caribou and Caribou #2 transmission lines (1708 total structures) in 5.7 hours.

A retired PG&E employee, who spent over 30 years in the Electrical Transmission Division reviewed the flight records. This former employee had been involved in the drafting of the 1995 inspection policy memo and the ETPM and the troublemen training program from 1995 to 2005. This former employee stated the flight records reflected the aerial patrols are "fly bys" not patrols or inspections. One recently retired troubleman admitted when doing aerial patrols he was only confirming the structures and components were "standing upright".

All of the troublemen who performed aerial patrols on the Caribou-Palermo line since 2012 and the current Transmission Line Supervisor assigned to Table Mt. Headquarters, were shown photographs, both the January 31, 2019 BCDA photographs and PG&E WSIP⁸⁸ photographs, of worn C hooks and hanger holes. All of the troublemen consistently denied it was possible to see and assess the wear on the C-hooks and hanger holes during aerial patrols.⁸⁹ The Transmission Line Supervisor asserted that, based upon wind and topography, it was not safe for the helicopters to fly low enough and slow enough to enable the troublemen to see and assess the C-hooks and hanger holes. The troublemen also denied it was possible to assess the wear on the C hooks and hanger holes during a detailed ground inspection. The ETPM corroborates the troublemen on both. According to Table 2 in section 1 of the ETPM the best view positions for assessing insulators and hardware do not include ground inspections nor aerial patrols. Only climbing inspections or lifted bucket inspections above 10 feet in the air would give the appropriate best view for assessment of insulators and their connectors.

Since the enactment of the ES Guideline E-TSL-G013 in 1995, **climbing inspections have only occurred "as triggered."** The specific language regarding triggers has changed very little since 1995. Appropriate "triggers" for climbing inspections were covered in section 2.1.3 of the ETPM (emphasis added):

Triggers are specific conditions that require follow-up inspections and/or maintenance scheduled by the supervisor, independent of the routine schedule.

The following triggers can be applied to one unit of inspection or many units, either grouped or spread over a line section/area:

- **Component defects identified by inspection**
- **Component failure (including failure in like components)**
- **Components proven defective by testing**
- **Wire/structure strike**
- **Burned area or high fire hazard**
- **Failures caused by natural disaster or storm**
- Third-party observations and complaints
- Marginal capability components of a re-rated line section

⁸⁸ Wildfire Safety Inspection Program – an "enhanced" post Camp Fire inspection of all PG&E electric transmission structures. See section X – Comparison of Caribou-Palermo With Other Transmission Lines for details on the WSIP and analysis of WSIP results.

⁸⁹ All of the troublemen also denied knowing the sizes of the hanger holes and C hooks. Therefore, even if the troublemen had looked at the C hooks and hanger holes, without knowledge as to their respective sizes, the troublemen would not have been able to assess wear.

- Known, recurring conditions that jeopardize line integrity
- Suspected vegetation clearances less than required or less than legal vegetation clearances, or concerns about fast growth of vegetation

Despite the facially mandatory language, “specific conditions that **require**,” many PG&E employees who were interviewed, including electric transmission troublemen, linemen and support personnel expressed an understanding that an occurrence or discovery of a specific condition did not necessarily trigger climbing inspections. The evidence clearly established that on the Caribou-Palermo line, PG&E interpreted the mandate of “require” as discretionary. The maintenance/repair/replacement records established that since 2007 many of the “required” triggers occurred. Some of the triggers (e.g. failures caused by storm, fires under the transmission line) have occurred multiple times. The evidence established the following triggers documented in PG&E records between 2007 and 2018:

- 2008 Lightning Complex fires (burned under and around transmission line)
- 2008 Rock Fire (started by failure of connector on Caribou-Palermo line Tower 11/87)
- 10/17/08 - failure to underarm jumper
- 2009 identification of parallel groove connectors on 83 towers (defective components)
- 2009 ATS Lab Test Report identifying defects in installation of parallel groove connectors
- 2012 fire which caused delay of 2012 Annual Air Patrol
- 2012 tower collapse (defective component)
- 1/10/14 - Unknown Failure/Locked Out causing interruption, no cause determined
- 2/7/15 – storm damage
- 12/10/15 Sustained outage. Found center phase guy wire tie down broken. North phase top insulator unpinned @ structure 23/194.
- 10/19/16 failure of a J hook in structure 11/99.
- 1/9/17 Storm related emergency due to (6) lockouts on the Caribou Palermo line. Non-routine air due to line locked out, crew found problem of floating center phase conductor at tower 24/200.
- 1/10/17 storm damage, conductor repaired.
- 2/1/17 storm related interruptions. “Non-routine airs due to momentary outages, fault location 10/79, found hold insulator hold down parted at structures 8/67 and 11/89, will create notifications for repairs.”
- 2/21/17 “Non-routine air patrol due to storm related momentarys [sic]. After several relays GCC placed non-test on line and line went to lock-out.” “Per [Troubleman] on 2/21/17 during storm damage: Air patrolled [sic] fault area and found hardware loose on tower 3/28 but not sure if this was part of the problem, re-energized line and held.”
- 3/2/18 “Investigate relay that occurred on 3/1/18 @ 11:43. Found damaged insulator on structure 37/301. Created notification to replace insulators.”

Between January 1, 2017 and February 21, 2017 there were at least nine documented storm related interruptions on the Caribou-Palermo line and at least six equipment failures. Based upon the evidence neither the individual events nor the cumulative events were deemed sufficient to trigger climbing inspections on the Caribou-Palermo line.

Although several PG&E transmission line employees referred to the ETPM as “The Bible” and asserted strict compliance with the standards and policies of the ETPM, the totality of the evidence shows that on the Caribou-Palermo line, the ETPM was not followed. Because PG&E had inexperienced, untrained and uninformed personnel conducting inspections and patrols under unrealistic time constraints, the inspections and patrols did not spot defects and wear.

On June 26, 2018, a PG&E work order requiring climbing inspections of all Caribou-Palermo line structures was issued by a PG&E Tower Department supervisor. The supervisor was interviewed. The supervisor could not provide any reason or rationale for the work order. Specifically, the supervisor stated that the work order was requested by someone else and his job was simply to compile the information into a template report and forward the template report to the appropriate work group.

PG&E was unable to provide any further information. “PG&E’s inspection records do not identify the factors that led to the selection of the Caribou Palermo 115 kV Transmission Line as one of the lines selected for climbing inspections as part of this effort. PG&E understands that the age of lines was a factor that was considered in their selection.”⁹⁰

Beginning in September 2018 climbing crews from the PG&E Tower Department climbed and inspected 80 towers on the Caribou-Palermo line. The vast majority of the towers climbed and inspected were on the Palermo-Big Bend section of the Caribou-Palermo line. “PG&E understands that the reason these approximately 80 towers were selected first and the order in which they were inspected was determined by the Tower Department based on various considerations, including weather conditions and crew availability.”⁹¹

All of the towers climbed in September and October 2018 were subjected to WSIP enhanced inspection starting in December 2018. The WSIP enhanced inspections documented problems and defects on numerous towers that were not discovered/detected/documented during the September 2018 climbing inspections.

The fact that PG&E has no explanation for how or why or by whom the decision to conduct climbing inspections was made is disturbing but not unusual. Numerous decisions and policies were investigated. As to many decisions and policies, PG&E was unable to provide any documentation as to who made the decision, how the decision was made and upon what the decision was based. This inability to determine who made decisions and upon what those decisions were based, frustrated efforts to identify individuals potentially personally liable for policies that lead to the conditions which caused the Camp Fire.

⁹⁰ PG&E written response to CPUC Data Request 008, Question 1.

⁹¹ PG&E written response to CPUC Data Request 008, Question 1.

X. COMPARISON OF CARIBOU-PALERMO WITH OTHER TRANSMISSION LINES

Although the undetected problems on the Caribou-Palermo line were bad, the evidence established that the Caribou-Palermo line was only marginally worse than other comparison transmission lines. Records from post-Camp Fire enhanced inspections of other, similar lines clearly established PG&E's problems were systemic as opposed to local.

The evidence established by early afternoon on November 8, 2018, a PG&E troubleman on an emergency air patrol of the Caribou-Palermo line had identified and photographed the equipment failure on Tower 27/222. Within six days PG&E initiated climbing inspections of the Caribou-Palermo line and other similar transmission lines. The initial inspections were named the "Nine Lines Inspections."⁹² PG&E records established that by November 14, 2018 the inspections were underway. The evidence showed the inspectors were specifically focused on C hook and hanger hole wear. By early December the Nine Lines Inspection program was superseded by the Wildfire Safety Inspection Program (WSIP). The WSIP involved enhanced (climbing and drone) inspections of all electrical transmission lines within higher wildfire risk areas. The WSIP inspections "identified thousands of conditions requiring repairs on PG&E's system that had not been previously identified."⁹³

As a result of the WSIP, and at the request of the CPUC, an independent engineering company named Exponent was retained to review the data from the WSIP. According to its website "Exponent is a multi-disciplinary engineering and scientific consulting firm that brings together more than 90 different disciplines to solve engineering, science, regulatory and business issues facing our clients." Based upon historical records, Exponent has a longstanding relationship with the CPUC and has conducted failure analysis investigations of previous PG&E incidents.

According to interviews with Dr. Brad James, PhD in Metallurgical Engineering and Failure Analysis expert at Exponent, Exponent was tasked to confirm whether the Caribou-Palermo line had significantly more repair tags when compared to other lines and to discover the reasons behind the high volume of high priority repair tags.

Exponent published its final report, entitled "PG&E Caribou-Palermo Asset Condition Investigation" to PG&E and the CPUC on November 1, 2019. A copy of the report was obtained via Grand Jury Subpoena.

According to the Exponent report the comparison lines were chosen from a list of transmission lines based on four criteria:

- 115 or 230kV lines only
- Elevations greater than 1,000 feet
- Single circuit steel lattice towers
- Tier 2 or Tier 3 fire zones

⁹² The nine lines were identified as the Caribou-Palermo line, the Drum-Rio Oso #1 line, the Pitt #1-Cottonwood line, the Caribou #2 line, the Caribou-Plumas Jct line, the Colgate-Alleghany line, the Fulton-Hopland line, the Hat Creek #1-Westwood line and the Keswick-Trinity line.

⁹³ CPUC Data Request: SED-007, Response to Question 6.

Other criteria that were also applied included mountainous terrain and wind exposure. Based upon the criteria only transmission lines in running through low population, rural areas were chosen. There were no transmission lines from the Bay Area, Central Valley or central coast chosen for comparison.

Among the conclusions reached by Exponent are the following:

- The Caribou-Palermo line was confirmed to have greater post-Camp Fire high-priority (“A” + “B”) repair tag⁹⁴ counts than all selected comparison lines, as well as an increased per-structure high-priority tag rate when normalized⁹⁵ for the number of steel lattice towers.
- Other lines adjacent to Caribou-Palermo line such as Bucks Creek–Rock Creek–Cresta (BCRC), Cresta–Rio Oso (CRO), and Paradise–Table Mountain (PTM) had the second, fourth, and fifth highest post-Camp Fire high-priority tag counts, respectively, when normalized for steel lattice towers. Pit #4 Tap (P4T) had the third highest normalized high-priority tag count. It is not near Caribou-Palermo line.
- Wear was the most commonly observed post-Camp Fire damage mechanism for Caribou-Palermo line “A” tags and second most commonly observed damage mechanism for “B” tags. Nearly all Caribou-Palermo line wear-related tags were associated with cold-end hardware. Cold-end hardware wear issues were likely caused by repeated conductor and insulator movement over time.
- Caribou-Palermo line, BCRC, and CRO lines, each located within the North Fork Feather River Canyon, exhibited high-priority cold-end hardware wear tag counts more than three times higher than the next highest comparison line when normalized for steel lattice towers.
- Caribou-Palermo North experiences higher annual average wind speeds than non-adjacent comparison lines. Lines analyzed within the North Fork Feather River Canyon may have increased wear tag rates associated with longer-duration high-wind conditions. No apparent correlation between wear tags and temperature, precipitation, or peak wind speed (50-year return) was observed.
- From 2001 to November 2018, the Caribou-Palermo line was subjected to similar ground inspection and patrol frequencies as comparison lines. These inspections and patrols yielded comparable normalized high-priority tag counts between Caribou-Palermo line and comparison lines.

⁹⁴ A report that documents a problem found, assigns a priority code to that problem and requests repair/replacement. PG&E Corrective Work Forms (CWF) are commonly referred to as tags. CWFs/tags are also referred to as notifications, especially in Transmission Asset Management.

⁹⁵ Normalization is a statistical analysis used for comparison purposes. Exponent divided the number of tags on a transmission line by the number of towers in the transmission line in order to compare transmission lines with disparate numbers of towers.

- The Caribou-Palermo line had more normalized equipment-based outages between 2007 and 2018 than approximately 80 percent of the other WSIP transmission lines.
- Caribou-Palermo line and other North Fork Feather River Canyon lines appear to have a unique set of factors that contributed to increased rates of high-priority cold-end hardware tags relative to other comparison lines. Factors such as design (link connectors and a relatively large number of non-tensioned insulated conductors), long-duration exposure to higher winds, age, and historical inspection methodologies likely all contributed to these cold-end hardware wear issues.

Although Exponent did not complete a forensic root cause analysis of the C hook that failed on Tower 27/222, when questioned Dr. James stated “That said, things like wear, things like fatigue do have a time component because the more times you rub that metal against each other, the more chance you have to – create wear. The more times you cyclically load the spring in your garage door, the longer you do that, the more chance you are going to initiate a fatigue crack and eventually grow it.”

The Exponent report analyzed historical (2001-2018) high priority tags⁹⁶. Consistent with the statements of the troublemen and linemen who have completed all inspections and patrols on the Caribou-Palermo line, Exponent found no high priority tags for cold end attachment hardware wear. Exponent also examined historical (2001-2018) inspection and patrol records for all of the comparison transmission lines. Exponent did not find any high priority tags for cold end attachment hardware on any of the comparison lines. This evidence established that the local Table Mountain District troublemen and linemen were not doing less than the troublemen and linemen assigned to other districts involved in the study.

Although the primary focus was cold end attachment hardware wear, the Exponent report also analyzed all Priority A and B “tags” generated by the WSIP. Priority A and B tags were “binned”⁹⁷ by component type and damage mode.

Organized by component type, on the Caribou-Palermo line there were actually more tags (all Priority B) generated for “Foundation” issues than “Cold End Hardware.” There were also tags generated for steel frame issues, insulator issues and conductor issues.

Organized by damage mode, there were more tags generated on the Caribou-Palermo line for soil movement (associated with foundation) than wear (exclusively associated with cold end attachment hardware). The other damage mode tags included bent, loose, missing, broken and corrosion.

The fact the troublemen and linemen missed that tower foundations were buried and portions of the steel structures were bent, loose, broken or missing contradicted the assertions of PG&E

⁹⁶ Issues that would be considered A or B priority under the current version of the ETPM

⁹⁷ In layman’s terms the tags were separated, sorted and organized by category.

employees that inspections and patrols were being conducted pursuant to the requirements of the ETPM.

Tower 27/221 best illustrates this lack of attention and thoroughness. On September 11, 2018, during the Annual Air Patrol of the Caribou-Palermo line, the troubleman noticed that a “hold down insulator anchor” on Tower 27/221 had failed. The troubleman noted the problem on his report and created a Corrective Work Form for repair of the hold down insulator anchor. On November 11, 2018, during the Camp Fire origin and cause investigation, the electrical engineer retained by Cal Fire noted and photographed the failed hold down insulator anchor on Tower 27/221. The electrical engineer also noted the arm of the transmission tower to which the hold down insulator anchor should have been attached was bent and two of the steel members of the arm were buckled. No corrective work form for the arm was located. The troubleman **only** created a corrective work form for the hold down insulator anchor. According to PG&E policy, as explained by multiple transmission troublemen, supervisors and specialists, corrective work forms are problem specific and if there are multiple problems in a tower each problem gets a separate corrective work form.

The Exponent report also compared the number of post-Camp Fire A and B tags with the comparison lines. Except for tags related to foundation issues, Exponent did not separate and organize the tags from the comparison lines. According to the Exponent report there were previously undocumented issues on all of the comparison lines. The only reasonable conclusion to be drawn from this data is that inspections and patrols on other lines are only marginally more thorough than those done on the Caribou-Palermo line. This conclusion was corroborated by Exponent’s comparison of A and B tags across maintenance districts. According to the Exponent report the post Camp Fire normalized A and B tags for comparison lines in the Table Mountain maintenance district (referred to as Table Mountain Headquarters by PG&E personnel) were not inconsistent with those of comparison lines in the Sacramento and Lakeville maintenance districts.

Based upon the totality of the evidence regarding the ETPM and inspections and patrols the only reasonable conclusion to be drawn was the Caribou-Palermo line specifically and the Table Mountain District in general are not outliers. The evidence established the lack of thorough inspections and patrols on the Caribou-Palermo line was a systemic problem not a local problem. Based upon the evidence the only reasonable conclusion was that in low population density mountainous areas, the PG&E Electrical Transmission Division was not following the standards and procedures established by the ETPM. As a result in those areas PG&E was not complying with the standards and procedures submitted to the regulatory agencies and required by regulation.

XI. BUDGETARY CONSIDERATIONS

Financial records from 2007 through 2018 obtained from PG&E, the CPUC and FERC clearly established PG&E had consistently increased its budget for maintenance, repair and replacement of transmission assets⁹⁸. The central issue in the FERC litigation over PG&E's 2018 Transmission Owner's Rate Case request was how that money was being spent. In the "Summary of the Prepared Rebuttal Testimony of {Vice President of Electrical Asset Management}"⁹⁹ then PG&E Vice President of Electrical Asset Management states: "PG&E makes these investments to address deteriorating electric system infrastructure and to address equipment that has reached the end of its useful life and system designs that no longer meet operational requirements." The PG&E Senior Director, Transmission Asset Management at the time, also provided testimony in the FERC litigation. In the "Rebuttal Testimony of {Senior Director, Transmission Asset Management}"¹⁰⁰ it was stated:

"PG&E must repair or replace assets that are approaching the end of their service lives, that are deteriorating, or that have failed. Replacement and repair of PG&E's assets are essential to maintaining and improving PG&E's transmission service to its customers. PG&E expects that replacement-related capital work will continue to grow as PG&E's assets continue to age. A significant part of PG&E's transmission infrastructure was constructed in the years following World War II, with some assets being even older. In addition, PG&E has one of the largest investor-owned fleet of hydroelectric facilities in the Country. By and large, these facilities are located remotely from PG&E's load centers. Many of these facilities—and their related transmission assets—were constructed in the early 1900s. Due to an increasingly large number of these assets nearing the end of their useful service lives, capital investment will shift significantly, from capacity increase-related projects, to lifecycle replacement projects."

However, the evidence gathered during the Camp Fire Investigation contradicted the FERC testimony of both Vice President of Electrical Asset Management and Senior Director, Transmission Asset Management. PG&E was **not** using the money to replace the oldest and most deteriorated transmission assets.

Because of limited available resources, the investigation was unable to fully analyze PG&E's financial records and assumed all figures were correct. The investigation instead focused on how, where and why the money was being spent. The evidence established the maintenance/repair/replace budget was primarily based upon "reliability metrics"¹⁰¹.

⁹⁸ During litigation relating to PG&E's 2018 Transmission Owner Tariff (TO18) rate case, PG&E represented that from 2007 (\$405,739,000) through 2016 (\$1,124,457,000) electrical capital expenditures increased every year except 2013 (decreased app. \$20,000,000 from 2012) and 2016 (decreased app. \$7,000,000 from 2015). In total, spending increased \$734,812,000 between 2007 and 2015 (the high spending mark), or an average of \$81,645,777 per year.

⁹⁹ Exhibit PGE-0037, FERC Docket No. ER16-2320-002.

¹⁰⁰ Exhibit PGE-0038

¹⁰¹ Reliability metrics measure how often a power line is out of operation, how long it is out of operation and how many customers are affected by that outage. SAIDI, SAIFI, CAIDI, ACOF and ACOD were the performance metrics used.

The evidence established PG&E electrical transmission expenditures were divided into two budget categories: 1) capital and 2) expense. The capital budget for the electric transmission division of PG&E was funded through customer rates which were determined by FERC “rate cases.”¹⁰² The expense budget was funded by the company. Any money spent on the expense budget potentially reduced the amount of profit of the company. In general, inspection, patrol and maintenance of electrical transmission assets were paid from the expense budget. Replacement of electrical transmission assets was paid from the capital budget. FERC rate cases, and PG&E’s future capital budgets, were based upon PG&E’s projections of capital projects. The evidence established that, for budget purposes, all components of the electrical transmission system were considered “assets.”

A. Expense Budget

Based upon PG&E internal records and interviews of electrical transmission employees, including a former employee of the PG&E Business Finance Department, it was established the budget for inspection and patrol of the transmission lines was controlled by the Business Finance Department. Each year the Business Finance Department set an inspection and patrol budget for each of the PG&E transmission maintenance divisions. That budget was based upon the allotted time for all of the inspections and patrols scheduled for that year. The allotted time for each inspection and patrol was based upon the specific time allotted for a troubleman to spend on a single structure (e.g. tower or pole). To compute the time allotment for a transmission line, the single-structure time-allotment was multiplied by the number of structures in the transmission line.

The time allotted to be spent on a single structure was a system-wide constant and did not take into account the physical location of any specific structure or the amount of time necessary to travel from structure to structure. For example, the time allotment assumed the inspection of a tower on the Caribou-Palermo line, parts of which could be accessed only by hiking a steep trail, would take the same amount of time as inspecting a tower in the Central Valley, located directly adjacent to a public roadway.

When questioned about the time allotments for inspections and patrols, a former employee of the Business Finance Department who was intimately involved in the allotment process, admitted he had no knowledge or experience with inspections and patrols, and based the allotments solely on dividing up the overall electric transmission expense budget. This former employee also asserted the Transmission Line Supervisors and Superintendents were consulted regarding the proposed allotments. The Transmission Line Supervisors and Superintendents interviewed denied having any input or control over the time allotted for inspections and patrols.

Although denied by the involved employees, emails between the Table Mountain Headquarters secretary and several troublemen indicated the troublemen were not able to complete some

¹⁰² A rate case is the utility’s explanation and justification for a rate increase. In layman’s terms, the utility lists all of the capital projects the utility deems necessary and their projected costs. If the total cost of all of the projects is higher than the projected amount to be collected from customers, the utility requests a rate increase and files a rate case. The rate increase is based upon the difference between projected costs and projected collections from customers. The rates which PG&E is allowed to charge customers includes a profit margin defined by FERC.

inspections in the time allotted. For example, the 2014 Detailed Ground Inspection of the Caribou-Palermo line was allotted 89.5 hours. PG&E records showed, before the secretary re-assigned hours billed by the troubleman to other projects, that the troubleman and five linemen actually spent 121 hours completing the inspection. When asked, a former Transmission Line supervisor asserted that because of the artificially constrained budget, his district was constantly under pressure to limit the hours necessary to complete thorough inspections and patrols of transmission lines.

During this same time period internal PG&E emails indicate the expense budget for electrical transmission was being reduced. An October 2015 email noted: “For the overhead tower inspections, I don’t think we would be able to do any repairs and incur land costs shown in item three and four in 2015.” The email includes a chart of projects with the 2015 and proposed 2016 budgets. Item three in the chart is “Severe deterioration repair (tower department).”

In an August 2016 email regarding a transmission expense budget meeting from a manager in Business Finance to a Senior Director of Transmission Lines, it was stated: “The purpose of the meeting is to obtain Leadership guidance on *which* items to pursue and *when*. This input is important given the Expense reduction pressures being pushed down on Transmission Operations for 2017.” One of the people involved invited to this meeting was the former Business Finance employee assigned to track unit costs for the transmission inspection and patrol budgets. When questioned by investigators, the former Business Finance employee conceded one way to reduce budget for inspections and patrols is to reduce the unit cost. According to the employee, the unit cost is reduced by reducing the time allotted for inspection/patrol of each transmission asset.

During this same time period, internal PG&E documents establish the “T Lines Patrols and Inspection Continuous Improvement Charter” was formed. The T Lines Patrols and Inspection Continuous Improvement Charter was a committee made up of PG&E personnel from the transmission line division, asset management, asset strategy and business finance. One of the specific mandates of the committee was evaluation of the feasibility of reducing costs by changing the frequency of inspections and patrols or finding more efficient work practices.

Based upon the totality of the evidence, specifically the reductions in times allotted for patrol and inspection, the internal emails indicating budget reductions and the formation of a committee to investigate reducing patrol and inspection costs, the only reasonable conclusion was that PG&E achieved expense budget cost savings by reducing the thoroughness of inspections and patrols.

PG&E also reduced its expense budget by charging expense projects to the capital budget. Moving projects from the expense budget benefits PG&E in two ways. First, every expense budget dollar saved was an additional dollar of potential profit. Second, the customers (ratepayers) pay over 100% of each dollar spent on capital improvements that brings in additional profit. Based upon internal emails and interviews with engineers involved in the planning and management of transmission projects, it was common for PG&E to look for ways to bootstrap expense budget projects on to capital budgets projects. Hypothetically, for example, instead of paying \$1000 from the expense budget to fix a component, PG&E would pay \$10,000

from the capital budget to replace the component. The \$1,000 saved from the expense budget becomes profit and the company charges the customers \$10,500¹⁰³ for capital improvement of the component.

The evidence established that PG&E personnel were consistently looking for ways charge expense budget projects to the capital budget. In a 2018 email from a PG&E civil engineer to a supervisor in the Transmission Line Asset Strategy Department of Transmission Asset Management, the civil engineer wrote:

“I understand Asset Strategy has been working on a new way to define unit of capital to make it easier to capitalize a partial replacement on tower sections (e.g. footing, crossarm, etc...). We are replacing the top part of a distorted tower under emergency and was wondering if that could be considered a unit of capital and capitalize the project for corporate accounting purposes.”

Based upon interviews with various PG&E personnel it was established that PG&E, as is common with large companies, had developed company accounting rules. Application of these rules determines if a project is charged to the expense budget or the capital budget. In general the rules hold that maintenance and repair are paid from the expense budget and replacement is paid from the capital budget. The above email indicates a move within PG&E to blur the lines between repair and replace to allow some repairs to be charged to the capital budget.

Another example occurred after the cancellation of the 2007 project to relocate ten deteriorating towers on the Caribou-Palermo line. The original Advance Authorization (AA) requested \$800,000. Only \$200,000 was approved. Once the project moved forward, the \$200,000 budget was quickly surpassed. By the time the project was cancelled in 2009 almost \$800,000 had been spent. A portion of that money was spent constructing an access road along the proposed new route of the ten new towers. According to internal emails obtained, the money spent to construct the new access road was charged as a capital improvement on another, adjacent transmission line. According to the former PG&E Director of Electric Asset Strategy who approved the 2007 AA, the rest of the money spent on the canceled project should have been charged to the expense budget. Internal emails establish that PG&E made an effort to find ways to charge the remainder of the money spent on the canceled project to the capital budget. A 2013 email from the former Maintenance and Construction Engineer (M&C) Engineer in charge of the project stated:

“Looks like we will be forced into trying to Capture the \$650K+/- that has been spent on the now canceled project for relocating Towers 6/53 to 7/65 from the non-accessible River side to Hwy side that (Project Manager) was managing.

In order to not have to Expense the dollars spent we will be required to perform the following work.”

¹⁰³ The extra \$500 added to the \$10,000 is the FERC allowed profit margin that PG&E would charge on capital improvements.

The email goes on to list the proposed work which mainly consisted of replacing insulators on the towers that Maintenance and Construction Engineer had previously described in the Advance Authorization as deteriorated. The work did not include replacement of the deteriorated conductor (annealed and parting) or any of the deteriorated hardware.

In a subsequent, 2014 email regarding the canceled project, the former M&C Engineer stated:

“In order to try and capture the \$900K that was spent for nothing, Asset Management decided that we would just replace the Insulators and Hardware on the section of towers that were initially going to be relocated.”

In a 2016 email regarding the canceled project the former M&C Engineer stated:

“This work was deemed by *{the Sr. Director of Transmission Asset Management}* in order not to end up expensing \$800,000 that was spent by *{Project Manager}* on an original job started by *{former Table Mountain TLine Supervisor}* to relocate this section of towers.”

When asked about these emails, the former M&C Engineer denied he was instructed to find ways to capitalize the money already spent and asserted that he was lying in the emails in order to get necessary work done quickly. As to the 2013 and 2014 emails, he stated the recipient of the emails, the Transmission Line Supervisor at Table Mountain Headquarters, distrusted engineers, so he lied and put blame on Asset Management in order to avoid argument. When asked about the 2016 email, which was directed to an engineer in Asset Management, the former M&C Engineer replied that the Sr. Director of Transmission Asset Management was not involved in the project and he invoked the name of the Sr. Director of Transmission Asset Management to speed up the process. This person is the same former M&C Engineer who wrote the original AA and the approved AA and now claims that his description of the condition of the relevant Caribou-Palermo line structures and conductor was unsupported and exaggerated for the purpose of securing funding for the project. In a 2016 email to the Transmission Line Asset Strategist, who canceled the 2007 project, the former M&C Engineer stated:

“The only thing that after reading the below that came to my mind would be to also add life expectancies on some of our older lines that we purchased from other utilities. Caribou-Palermo (old Caribou-Golden Gate) for example...Built roughly in 1907. This line is in a very remote area. Access is extremely limited. Conductor was deemed annealed several years back. Line has tons of splices in it. Some spans have 5 splices within said span. Most of the upper line section is subject to rockslides that have taken this line out in the past. Restoration time is lengthy..

Just one example, but I feel we should identify lines or line sections that meet this type of criteria and add them to our mitigation plan or part of future complete structure replacements...”

B. Capital Budget and Comparative Risk Analysis (RIBA)

For the capital budget, the evidence established PG&E employed “comparative risk analysis” to determine the budgetary priority of potential capital projects. Based upon interviews with several current and former PG&E employees who were involved in risk analysis, it was established PG&E has traditionally used some form of comparative risk analysis. Comparative Risk Analysis balances the probability of risk against the probability of consequence; and depends upon accurate projections and analysis of both. One of the former employees interviewed was the former Senior Vice President of PG&E. According to the former Senior Vice President of PG&E when he arrived at PG&E in 2007 the company was using comparative risk analysis, which he disapproved because of its subjective nature¹⁰⁴. The former Senior Vice President of PG&E tried to install an objective risk model focused solely on the probability of failure. The former Senior Vice President of PG&E left PG&E in 2011.

The evidence established in 2014 PG&E again began using comparative risk analysis for capital funding. Since 2014 PG&E has used the Risk Informed Budget Allocation (RIBA). Based upon internal documents and interviews, the evidence established that under RIBA, capital projects were evaluated for funding based upon safety, environmental and reliability impacts that were scored based upon a complex matrix. According to a Manager in Transmission Asset Management, and one of the persons actively involved in the RIBA scoring process in 2014, reliability is “more about the customer impacts. So number of customers, the duration of outages, large cities, metropolitan areas. It’s what we call critical locations. This can be anywhere from towns to cities.”

For each category (safety, reliability, environment), a project would score between 1 and 10,000. The scores for the three categories were combined with the result being a project score between 3 and 30,000. The final score, according to the Manager in Transmission Asset Management, represents the “consequence if we don’t complete the project.” Once all of the proposed projects are scored the projects are ranked high to low by total score. RIBA scoring determined whether a project that is not mandated by a regulator was funded for the coming year, RIBA scoring and ranking was independent from and occurred after a project had been included in a FERC rate case.

Based upon the evidence, projects were used in FERC rate cases to justify rate increases and then, later, not funded because of a low RIBA score.

As examples, in 2014 three proposed projects on the Caribou-Big Bend section of the Caribou-Palermo line were scored under RIBA; the TL¹⁰⁵ Relocate 10 Towers project, the Replace 5 Damaged Towers project, and the 115kV NERC Alert. Through internal documents and witnesses it was determined that the TL Relocate 10 Towers project was the 2007 project to replace and relocate the ten deteriorating towers that had been canceled in 2009. By 2014 the only portion of the project active was the replacement of insulators so that the money spent on the project prior to cancellation could be charged to the Capital Budget. Based upon internal

¹⁰⁴ Relative risk analysis is a form of comparative risk analysis.

¹⁰⁵ TL is abbreviation for Transmission Line.

documents and witnesses, it was established that the Replace 5 Damaged Towers project referred to the replacement of the five towers that collapsed in December of 2012. Based upon internal documents and witnesses it was established that the 115kV NERC Alert project referred to the 2013 Caribou-Big Bend NERC project.

According to the “Risk scoring for baselined projects” the Replace 5 Damaged Towers total risk score was 180. The total risk score for the Replace 5 Damaged Towers project was explained in a February 2014 email from a RIBA team member¹⁰⁶ to the Senior Director of Transmission Asset Management in 2014. According to the RIBA team member:

“<200 score because there is no likely large environmental event (if structures fail, it will be likely due to heavy rain and no wildfires are possible then). Also no likely public safety issue with live wires down because it is in a remote area. Reliability score is not that high because although the likelihood of failed structures happening is high, the affected customers are likely in the order of >1K.”

According to the RIBA scoring sheet for the Replace 5 Damaged Towers project the person(s) scoring the project felt that the failure of the Shoe Fly “Probably could happen this next season.” On the “Frequency/time-to-impact taxonomy” the project scored 6 out of 7 possible points.

In 2014 the Manager in Transmission Asset Management took part in the RIBA scoring. In addition she was the “Program Manager” for the Replace 5 Damaged Towers project. Based upon the 2014 RIBA scoring records the Manager in Transmission Asset Management stated that the Replace 5 Damaged Towers project scored the lowest possible scores of 1 for safety and environmental and scored 178 for reliability. According to the Manager in Transmission Asset Management the safety score was justified because the “worst reasonable direct impact,” (WRDI) “basically in the particular case, would a structure fall down and hit somebody” was negligible because of the “remote” location of the Shoe Fly poles. According to the Manager in Transmission Asset Management, despite the written statements from 2014 documenting concern for the long term reliability of the Shoe Fly, the Shoe Fly was “temporary permanent” and it was not felt to be a danger to collapse. A former Transmission Specialist for PG&E and the person who was in charge of the construction of the Shoe Fly, was also asked about the Shoe Fly. According to the former Transmission Specialist, the Shoe Fly was only designed to be in place for a few months with the expectation that permanent replacement towers would be erected the following summer of 2013. Notes in the RIBA scoring sheet under the category reliability category of “Frequency¹⁰⁷” corroborate the former Transmission Specialist. The former Transmission Specialist was also corroborated by an October 2013 email from the former M&C Engineer to multiple people. In the email the former M&C Engineer states “I do not believe there was a PO¹⁰⁸ created under MWC 70¹⁰⁹ yet for that replacement project that is now sitting

¹⁰⁶ The position/job title of the RIBA team member was never determined.

¹⁰⁷ The “Frequency” category measures how often a problem is expected to occur.

¹⁰⁸ In layman’s terms, a project proposal.

¹⁰⁹ MWC is an abbreviation of Major Work Category. Each major work category is identified by a number. In this case the proposed project falls with major work category number 70. All PG&E electric transmission work projects are assigned to a major work category for accounting purposes.

on Wood poles and was not intended for long term reliability.” The project was assigned a frequency score of 6 out of 7 possible with the note “Probably could happen this next season.”

No records were ever located to support The RIBA team member’s conclusion that the Shoe Fly poles would most likely fail due to heavy rain. According to the Manager in Transmission Asset Management, The RIBA team member was an expert on the RIBA process who was assigned to assist “the engineer walk through the process.” Based upon the records the Manager in Transmission Asset Management identified the engineer as the engineer most familiar with the overall project and assigned to do the RIBA scoring for the project. According to an undated PG&E Org Chart, the engineer assigned to score the project was a Senior Engineer assigned to Transmission Asset Development and reported directly to the Manager in Transmission Asset Management. According to the notes on the scoring sheet, as interpreted by the Manager of Transmission Asset Development, “the concern here is the note says that the structures would go down during rainy and wet storm. And what’s not shown here is that the wildfire is not likely, because on the wet ground not likely to have wildfire.” No records in support of Senior Engineer’s conclusion were ever located.

On the other hand, the TL Relocate 10 Towers project scored 581. According to the scoring sheet, the Senior Engineer was also the engineer assigned to score this project. Despite the fact that by 2014 the scope of the project was limited to the replacement of insulators so that money spent on the project prior to cancellation could be charged to the Capital Budget, the project scored 18 points out of 10,000 possible points for safety¹¹⁰. Despite the fact that the project involves the same Caribou-Palermo line the Reliability Risk Score is 562. 434 of those points are justified because “WRDI is possible contact with public leading or to other facilities causing potential injuries to few employees” according to the notes on the scoring sheet.

The 2014 RIBA scoring is used to highlight the subjective nature of the comparative risk analysis. Because they are subjective the risk scores are easily manipulated. PG&E was highly motivated to complete the TL Relocate 10 Towers project in order to be able to charge the budget overruns, money already spent, to the capital budget. By 2014 the Replace 5 Damaged Towers project was about future spending. The best example of the manipulation is the WRDI justifications. One of the oft-stated justifications for the TL Relocate 10 Towers Project was the fact that the ten towers were located in a remote, inaccessible location. The towers were so inaccessible that PG&E had to use helicopters to fly personnel to the towers. Also, there was no evidence that any of the ten towers was on the verge of collapse according to the 2009 email from the manager who cancelled the project in 2009. On the other hand, the Shoe Fly was built on Camp Creek Road and any, or all of those poles, could reasonably be expected to fall down within a year.

Another example of manipulation of facts in the 2014 RIBA was the RIBA team member’s conclusion, apparently based upon the Senior Engineer’s scoring note that “structures would go down only if it is rainy and wet”; and restated several times by the Manager in Transmission Asset Management that the wood Shoe Fly poles would probably only collapse during heavy rain

¹¹⁰ 18 times the safety score for the Replace 5 Damaged Towers project

thereby minimizing the chance of a wildfire. This statement was made in 2014, in the middle of a historic drought.

PG&E's own records clearly establish wind has long been classified as one of the top causes of structure failure on both transmission and distribution lines. PG&E's own records also establish the Feather River Canyon is known for high and sometimes extreme winds. Based upon PG&E wind records, the Exponent Report stated "Maximum (or peak) wind speeds in the areas of the chosen lines are generally found to vary between 60 to 100 mph, as measured and reported in "Extreme Wind Speed Estimates Along PG&E Transmission Line Corridors" across one-minute time intervals and at an elevation of 33 feet above ground level, over a 50-year return period." According to data pulled from the Jarbo Gap RAWS¹¹¹ by Meteorologist Kris Kuyper the highest number of high wind events occur in the month of October.

The inherent weakness of comparative risk analysis is its subjective nature. Data can be manipulated to achieve a desired result. Based upon the evidence the 2014 RIBA process exposes the manipulation of comparative risk analysis by PG&E personnel.

C. Transmission Asset Management

The examination of the 2014 RIBA scoring also highlighted the central role of Transmission Asset Management (TAM) in the development and execution of the capital budget. The former Senior Director was replaced as Senior Director of Transmission Asset Management in 2017. The Senior Director of Transmission Asset Management who assumed the position in 2017 explained the role of Transmission Asset Management:

"My team's responsibility for managing those assets would be to track performance of the operation of the assets and ultimately make recommendations for enhanced -- future enhancements for those assets, investments that would occur over the next five to ten years both to replace aging infrastructure, enhance existing infrastructure for greater operational flexibility as well as increased capacity to meet NERC reliability plan and standards."

"My job is to identify future work, future planned capital work. Our process has a bias towards identifying work approximately six years out."

In 2017, shortly after the new Senior Director of Transmission Asset Manager took over, TAM published the Electric Transmission Overhead Steel Structure Strategy Overview (2017 Strategy Overview). The document was written by a Senior Engineer assigned to Transmission Asset Strategy (TAS) within TAM. According to the Senior Engineer, the function of TAS is to review conditions reported from the field, study performance of the assets, apply criteria and develop a strategy for replacement or repair. According to the Senior Engineer the "conditions reported from the field" are the notifications/tags generated by the troublemen, linemen and towermen¹¹². The "criteria" listed by the Senior Engineer include the age of the asset, environmental risk, safety risk, reliability risk.

¹¹¹ Remote Automated Weather Station. See section XVI "Drought and Wind"

¹¹² Towermen work only on the steel structure of the tower.

According to the Senior Engineer, prior to the 2017 Strategy Overview neither a comprehensive plan for tower risk nor a tower risk database existed at PG&E. The Senior Engineer's statement was corroborated by internal emails obtained from PG&E. A June 10, 2016 email from a Manager in Transmission Line and Substation Asset Strategy¹¹³, to a group of PG&E employees including the Senior Engineer, appears to be the genesis of the 2017 Strategy Overview. This email regarded a "Comprehensive Plan for Towers." According to the text the email was follow-up to a meeting held earlier in the day. The stated goal of the meeting was "Develop a Comprehension Plan for Tower Risk with emphasis on steel corrosion risks. Plans should include maintenance plans, detail inspection specifications, repair vs. replace criteria, capital and expense cost estimates, risk database, update Standards." Based upon the evidence, the only reasonable conclusion to be drawn is that, despite the fact that PG&E decisions were allegedly based upon risk analysis, until 2017 PG&E had no consistent and comprehensive risk database or policy for evaluating risk.

According to the 2017 Strategy Overview "The Transmission Line Steel Structure strategy will manage the asset life cycle (e.g. Create, Utilize, Maintain, Renew (replace), and Dispose) based on risk. The renew asset life cycle is based on proactive cost replacements for high-risk assets. For medium risk assets, it is based on reactive replacements following asset failures." The "high risk," "medium risk" theme continues throughout the 2017 Strategy Overview. Although not mentioned in the quoted sentence, there is also a "low risk" category. The appendix to the 2017 Strategy Overview includes an "Asset One Page Summary T-Line Strategy From A PAS 55 Framework." The summary consisted of five different charts. Although she is the author of the 2017 Strategy Overview, the Senior Engineer asserted that she was not familiar with the charts and was unable to explain the charts or their significance. According to the Senior Engineer the One Page Summary was prepared by her supervisor and attached to her work. The final chart, which has no title, appeared to summarize PG&E TAM risk strategy. According to the chart, for low risk assets the strategy was "run to failure" with "minimal patrol to continuously assess risk," "no maintenance," and "only replacement no repairs." For high risk assets the strategy was "condition base and cause evaluation," "extensive patrol with more frequency," "minimum req¹¹⁴ maintenance" and "replace/repair."

During interviews and testimony, TAM personnel stated that the high, medium and low risk categories applied to components of the transmission lines and not the entire lines. Insulators were identified as an example of a low risk component. All current TAM personnel disavowed the term "run to failure" during interviews and testimony.

Shortly after publication of the 2017 Strategy Overview PG&E published the 2018 TD-8101 – Transmission Line Overhead Asset Management Plan (2018 AMP). According to the Senior Engineer the 2018 AMP was written by multiple engineers, including herself. The "Document Owner" listed on the 2018 AMP is the Senior Director of Transmission Asset Management.

¹¹³ At the time The Senior Engineer's direct supervisor

¹¹⁴ abbreviation of required.

The 2018 AMP included a modified version of the TAM Risk Strategy chart found in the Appendix of the 2017 Strategy Overview. According to the preface to the chart:

“The characteristics and condition of each transmission line overhead asset inform the risk and approach to replacement and operation, as well as patrol and maintenance frequency, as shown in” the charts

For low risk assets the strategy is “run to maintenance,” with “low degree of patrol with minimal frequency to continuously assess risk,” and “corrective maintenance.” For high-risk assets, the strategy is “preventative maintenance and cause evaluation,” with “high degree of patrol with more frequency,” and “preventative maintenance.” The 2018 AMP also includes a table entitled “Risk and Replacement Strategy per Asset.” The Risk and Replacement Strategy per Asset table identifies individual components of the, identifies the risk for each component and defines the replacement strategy for each component. Overhead conductor is listed as a “high to medium” risk with the replacement strategy “preventative maintenance for high risk” “run to maintenance for medium risk.” Steel structures are listed as high risk with the replacement strategy “preventative maintenance.”

The most relevant difference between the chart in the 2017 Strategy Overview and the chart in the 2018 AMP is the replacement of “Run to Failure” with “Run to Maintenance.” When asked about “Run to Failure” TAM employees tended to distance themselves from the phrase and criticize the phrase as being undefined although the term “Run to Failure” appears to be an industry standard and was discussed as an appropriate strategy for some components of the electrical transmission system in the 2010 Quanta studies. When asked to define “Run to Maintenance” most TAM employees identified failure as the trigger to maintenance. Based upon the evidence it appears that the change from failure to maintenance was semantical only.

As Senior Director of Transmission Asset Management the witness was responsible for overseeing the organization within PG&E responsible for managing assets of transmission and substation infrastructure and overseeing risk management within electrical transmission. As the manager of transmission assets, he played a sponsor role for new capital projects to replace to replace infrastructure. Transmission infrastructure was defined as transmission structures, conductor, insulators, circuit breakers, substation busses and transformers.

According to the Senior Director of Transmission Asset Management, information from the field, in the form of notifications/tags generated as a result of inspections and patrols, play a role in identifying potential projects to be included in the five year plan. According to the 2018 AMP “Transmission line overhead asset performance is primarily tracked through two factors: historical line outages and maintenance and inspection found notifications.” The Senior Director of Transmission Asset Management conceded the quality of the input received from the field has an impact on the overall asset strategy. The Senior Director of Transmission Asset Management also conceded problems not identified by field representatives would never be brought to the attention of TAM. As a result projects to repair or replace those problems would never be

planned. The Senior Director of Transmission Asset Management also conceded that as of 2018, other than the NERC Project there were no projects planned through 2022 on the Caribou-Big Bend section of the Caribou-Palermo line.

Although PG&E policy, as defined in documents like the 2017 Strategy Overview and the 2018 AMP and explained by TAM personnel, represented that decisions were made based upon a combination of performance information and patrol and inspection findings, the evidence indicated that performance information played an oversized role and patrol and inspection findings were insignificant. As a result of years of reductions of frequency and thoroughness of patrols and inspections, problems were not being identified. Based upon the WSIP and the Exponent report it was clear that on the Caribou-Palermo line and comparable lines, PG&E troublemen were not identifying problems.

The evidence established decisions regarding repair or replacement of transmission assets could not have been based upon non-existent patrol and inspection notifications. As such, then the decisions were being made solely on asset performance information. Performance information consisted of a complex series of reliability metrics (SAIDI, SAIFI, CAIDI, ACOD, ACOF). The evidence established these reliability metrics were a statistical analysis of outage data. This information was required to be tracked and reported yearly to CPUC, CA ISO, WECC, NERC and FERC. In general, all of the reliability metrics measured either the number or the effect, or both, of power outages per year. Effect is measured by either the number of customers who lose power as a result of the outage or the duration of the outage or both. The evidence established that the Caribou-Palermo line had only one dedicated customer (a powerhouse) who could be effected by an outage.

Information regarding transmission asset conditions was based upon information received from the field. This includes notifications/tags generated by troublemen, linemen and towermen during inspections and patrols, both routine and non-routine). According to the Senior Director of Transmission Asset Management, TAM relied upon notifications/tags to identify potential preventative maintenance projects. After substantial discussion the Senior Director of Transmission Asset Management conceded that the fact that if troublemen, linemen and towermen did not inspect specific components of the transmission assets, it would affect the reliability of the information upon which TAM was making decisions. Specifically he conceded that because nobody was looking for wear on cold end attachment hardware and therefor, no notifications/tags were being generated for replacement of cold end attachment hardware there were, as of November 8, 2018, no projects in the foreseeable future for the replacement of cold end attachment hardware.

Although there were no specific plans to replace cold end attachment hardware the Senior Director of Transmission Asset Management asserted that plans were being made to perform preventative maintenance on the Caribou-Palermo line. According to the Senior Director of Transmission Asset Management, the NERC Project included non-NERC required preventative maintenance on the Caribou-Palermo line. When confronted with the Project Scope document for the NERC Project the Senior Director of Transmission Asset Management was unable to identify any non-required work. According to the Senior Director of Transmission Asset

Management the non-required preventative maintenance was not included in the Project Scope document but that plans were being made to perform the preventative maintenance. However, no records or plans for any preventative maintenance projects on the Caribou-Palermo line were located through 2022.

Another concept, which came up repeatedly in interviews and testimony of TAM personnel was “bundling.” Based upon the evidence, for PG&E, bundling meant doing multiple projects on a transmission asset or line at the same time. According to the Senior Director of Transmission Asset Management TAM decisions were, in part, “informed by the most cost-effective approach for our customers.” Having crews do multiple projects at once is much more cost effective than having multiple crews make multiple visits to the asset or line. An example of bundling occurred in 2018 on the Parkway-Moraga 230kV transmission line. The line had been de-energized so that the tower department¹¹⁵ could fix a tower. While the line was de-energized the line department¹¹⁶ performed preventative maintenance by replacing insulators.

Bundling often involved the intertwining of capital budget and expense budget projects. Based upon internal PG&E emails and interviews with PG&E personnel, it appeared PG&E bundled expense budget projects with capital budget projects in order to charge the expense budget costs to the capital budget project.

Despite their preference for bundling projects there is no evidence of any intent to bundle any preventative maintenance projects to the 2013 NERC Alert Project.

The only reasonable conclusion to be drawn from the totality of the evidence is that PG&E was employing a run to failure strategy on the entirety of the Caribou-Big Bend section of the Caribou-Palermo line. Pursuant to the run to failure strategy, PG&E only applied a low degree or patrol with minimal frequency to continuously assess risk, and only performed corrective maintenance.

XII. SAFETY, RELIABILITY AND ENVIROMENT

The phrase “Safety, Reliability, Environment” appears consistently in PG&E documents, regulatory filings and public pronouncements. Members of the Electric Transmission Asset Management interviewed said safety, reliability and environment are the criteria by which all project decisions are judged. The Senior Director of Transmission Asset Management testified:

“In terms of how PG&E quantifies consequences, we usually categorize it in a number of areas focused on safety, impact reliability, impact to the environment are some examples.”

“An analysis starts with defining a risk event, and that's really defining what is that event that we believe could have exposure from a public safety reliability environmental standpoint, and then quantifying the potential drivers for that event, and the associated consequences for that event.”

¹¹⁵ The tower department deals solely with the steel transmission structures. Employees are called Towermen.

¹¹⁶ The line department deals with energized components (conductor, insulators, hot and cold attachment hardware) of the transmission system. Employee are called Linemen.

All members of TAM were asked which of the three criteria was considered the most important. They unanimously replied safety. The evidence, however, contradicted that assertion. The evidence showed disparate treatment of transmission assets based upon the reliability metrics.

The most basic example of disparate treatment based upon reliability metrics was the 500kV transmission lines. According to PG&E personnel the 500kV lines are the backbone of the electrical transmission system and an outage on a 500kV can potentially affect millions of customers. According to the ETPM, all 500kV structures were subjected to detailed ground inspections every three years. “Critical” 500 kV structures were subjected to climbing inspections every three years and as triggered. “Non-Critical” 500 kV structures were subjected to climbing inspections every twelve years and as triggered. All 500 kV structures were also subjected to yearly patrols. In contrast, 115 kV structures were subjected to detailed ground inspections every five years, air patrols in non-detailed ground inspection years and are never subjected to climbing inspections.

Another example of disparate treatment based upon reliability metrics established by evidence developed during this investigation was the Bay Waters power towers. Since 2005, the Bay Waters towers had their own classification in the ETPM. Although the ETPM refers to the Bay Waters Foundation Inspection, numerous PG&E documents and TAM personnel established the special treatment extended to the entire tower. Some documents limited the Bay Waters towers to only towers that were actually in the water but other documents and information from some TAM personnel indicated the Bay Waters towers included all towers in the Bay Area. The justification given by TAM personnel for the special treatment of the Bay Waters towers is the highly corrosive effect of salt on steel structures. When asked why special treatment was afforded to Bay Area steel towers but not steel towers along the Sonoma, Mendocino, Humboldt, Monterrey and San Luis Obispo coasts, TAM personnel were unable to explain the difference.

The final example of disparate treatment based upon reliability metrics established by the evidence arose out of a 2018 PG&E Lab Report on the hanger plates from the Parkway-Moraga 230 kV transmission line. According to the Lab Report, the hanger plates were submitted by the Supervisor, T-Line Construction, T-Line M&C Central-Bay Maintenance. When questioned, the supervisor stated wear was observed on the hanger plates while replacing insulators on the Parkway-Moraga line in the spring of 2018. There was no mention made of the C hooks and none were preserved. According to the supervisor a tower on the Parkway-Moraga was damaged in a mudslide and needed to be repaired. In order to repair the tower the line had to be de-energized. While the line was de-energized, a decision was made to proactively replace all of the “old” insulators and hardware. The Parkway-Moraga line was built after World War II in 1946. The insulators and hardware were assumed, because PG&E has no definitive records, to be 72 years old. In contrast, the Caribou-Palermo line was 91 years old when it was de-energized for over a month in December 2012 and January 2013 as a result of tower collapse. There is no record of PG&E doing any preventative or proactive maintenance on the Caribou-Palermo line while it was de-energized. According to PG&E, the reason no preventative or proactive maintenance was done was that the winter weather was not conducive to working in the Feather River Canyon.

A former PG&E Transmission Line Supervisor who, during his career in transmission lines, worked in almost all of the transmission line maintenance districts was asked if he had noticed a difference in the way transmission lines were inspected and maintained based upon a local population base. The former supervisor responded “We’re kind of out-of-sight, out of mind up there,” “We’re always fighting the political battle,” “But if something flips the screen down there [the Bay Area] they get a lot of attention.”

XIII. RISK MANAGEMENT

Prior to the Camp Fire, risk management for electric transmission was supervised by TAM. During his testimony the Senior Director of Transmission Asset Management at the time of the Camp Fire, stated that the formulation of strategies by TAM relied, in part, on the assessment of risk. He defined “Risk” as “the probability and consequence of an event occurring.” He defined probability as the “likelihood of something happening” and consequence as “the impact of that event occurring.” He defined consequence as the result of an event occurring measured by impact on safety, impact on reliability and impact on the environment.

The Camp Fire investigation focused on two types of risk; risk of equipment failure and risk of fire.

A. Risk of Equipment Failure

The recommendations of the 2010 Quanta reports focused on ways to minimize the risk of equipment failure. In summary, the Quanta reports stated wear is a product of age and failure is a product of wear. All of the complex statistical analysis in the Quanta reports boiled down to the fact a large percentage of PG&E’s transmission assets were very old and needed extra attention. Despite hiring Quanta to assess and analyze its transmission assets and make recommendations, PG&E ignored those recommendations. According to internal PG&E documents, in 2010 a committee was assigned to review and comment on the Quanta reports. Numerous current and former TAM personnel who were part of that committee were interviewed. None of the former committee members could recall who made the decision to disregard the recommendations of Quanta or why. The Senior Director of Transmission Asset Management, who was not on the committee and was not assigned to TAM in 2010 testified regarding the Quanta reports:

“The Quanta study did not look at asset data from those utilities but rather business practices from those utilities. The only age information and corresponding failure data that was used in that study was associated with the subset of assets that failed in a two-year period within PG&E and made some assumptions that made the statistical analysis incorrect. So it wasn't sufficient for us to justify significant amounts of investments in the future, and we needed to do additional analysis in order to build the case for our regulators to be able to justify requesting authorization to be able to make additional investments in the infrastructure based on the results of that bullet point at a later date.”

Although the Senior Director of Transmission Asset Management was dissatisfied with the Quanta reports, information from the Quanta reports was used and cited in numerous subsequent TAM documents, including documents produced by himself.

PG&E internal documents and reports and a report filed with the CPUC clearly established PG&E was aware of the risk of equipment failure. In an undated internal PG&E draft report entitled “Transmission Overhead Conductors¹¹⁷” it was stated, “The major root cause of conductor failures is Equipment Failure (35%).” The report also stated inspections and maintenance performed according to the ETPM “are not preventing equipment failure due to wear, corrosion and other factors on conductors and associated equipment (splices).” The report also addressed the use of infrared inspections on transmission conductor: “In most cases, Infrared Inspections identify faults with components just prior to failure. Ariel (sic) inspections are conducted annually. This proactive approach yields little results.” No final copy of this report was located and it is unknown why this report was drafted and to whom this report was distributed.

In another undated, unattributed internal report entitled “EO¹¹⁸ Transmission OH¹¹⁹ White Paper¹²⁰” the effects of equipment failure was again discussed. Whereas the Transmission Overhead Conductors was focused on conductor failure and how to mitigate/reduce the number of conductor failures, the EO Transmission OH White Paper focused on outages and how to reduce outages to improve reliability metrics. According to the OH White Paper, at the time of writing, conductors 105 years old were still in service. According to the OH White Paper, “The root causes of about 85% of the outages due to conductors from 2007 to 2012 can be attributed to trees, hardware, conductor, wind and snow...” Under the heading “Existing Conductor Strategy” the report reflects the strategy “is primarily Run to Failure (RTF), supplemented by” “periodic condition assessment and maintenance” and “program of targeted reliability improvements focusing on poorly performing lines which contribute the most to SAIFI.”

In November, 2017 PG&E filed the 2017 Risk Assessment and Mitigation Phase Report (RAMP)¹²¹ with CPUC. Chapter 10 of the RAMP was dedicated to, non-wildfire risks of the electric transmission overhead system. The RAMP looked at the known risks (identified as risk drivers) to the electric transmission system and explains how PG&E is mitigating those risks. The RAMP identified “Equipment Failure – Connectors/Hardware” as a significant risk. “Deterioration of connectors, splices or other connecting hardware that results in wire down events. This driver was associated with 28 out of 279 (10.0 percent) wire down events from 2012-2016, or an average of 5.7 events per year.” Efforts to mitigate the risk of Equipment Failure – Connectors/Hardware are divided into past (2016), present (2017-2019) and future

¹¹⁷ The author of the report is not identified and was not identified during the investigation. Based upon content it appears the report was written in 2013

¹¹⁸ EO is the PG&E abbreviation for Electric Operations.

¹¹⁹ OH is the PG&E abbreviation for Overhead.

¹²⁰ The author of the report is not identified and was not identified during the investigation. Based upon content it appears the report was written in 2014

¹²¹ Although not specific to equipment failure, the RAMP stated “Much of PG&E’s transmission infrastructure was constructed in the years following WWII. As such, many assets are nearing “end of useful life”. As these of assets near the end of their expected useful lives, PG&E will need to increase its level of asset replacements to avoid degradation in overall customer reliability and system performance.” Construction of the Caribou-Palermo line began in the months (six months) following WW1.

(2020-2022). The mitigations listed are “Inspection and Maintenance,” “Overhead Conductor Replacement” and “Insulator Replacement.”

The 2018 AMP also addressed equipment failure. The 2018 AMP used and defined the term “Risk Driver.” The definition includes reference to equipment failure:

“A risk driver is defined as an element which alone or in combination with other drivers has the intrinsic potential to give rise to risk (which can be a single risk or multiple risks). There are 83 risk drivers related to transmission overhead line assets. Though there are many risk drivers, common drivers for transmission line overhead assets include equipment failure, vegetation, natural hazards (wind, snow, earthquakes, etc.) and third-party contact. These risk drivers enable PG&E to evaluate the controls that are in place and to strategically allocate resources to programs that strengthen these controls or create new controls to mitigate these risks.”

According to the 2018 AMP “Conductor or connector/hardware failures account for 37% of all wire down events.” The AMP also stated 25% (26 of 103) of wire down events 2013-2017 were caused by failure of “connector/hardware and 42% (44 of 103) of wire down events 2013-2017 were caused by conductor failures.

The documents prove beyond any doubt that PG&E was aware of the risk of equipment failure causing conductor failure or “wire down events.” The undated draft Transmission Overhead Conductors established that at least one person within PG&E TAM was aware that inspections and patrols being done pursuant to the ETPM were doing very little to identify and prevent equipment failures.

B. Risk of Fire

Since, at least 2007, fire has been identified as the number one risk for PG&E. Chapter 11 of the 2017 RAMP stated:

“PG&E defines wildfire risk as: PG&E assets may initiate a wildland fire that endangers: the public, private property, sensitive lands, and/or leads to long-duration service outages.

PG&E has designated wildfire as an enterprise risk (in addition to being a top safety risk) since 2006. This risk is reviewed annually by the Safety, Nuclear and Operations, Committee of PG&E’s Board of Directors. PG&E’s exposure to wildfire risks continues to escalate despite increasing investment in compliance and public safety programs given various environmental and human factors. The most notable investments are the T&D routine VM work and the CEMA VM work related to the drought and the ongoing tree mortality state of emergency.

The CEMA work investment alone amounts to \$190 million in 2016 and \$208 million in 2017.¹⁴ Environmental variations, such as drought conditions or periods of wet weather that drive additional vegetation growth and wildfire fuel increases, can influence both the likelihood and severity of a wildfire event.

Although vegetation management is rightfully a focus of PG&E's fire mitigation efforts, equipment failure was also identified as a significant fire risk. According to PG&E statistics included in the RAMP, 33% of fires initiated by PG&E assets were caused by equipment failure. Vegetation management caused 37% of fires initiated by PG&E assets. The RAMP breaks equipment failure into three categories: 1) conductor; 2) connector/hardware; and, 3) other. Equipment failure – connector/hardware is defined in the RAMP as “Failure of connectors, splices, or other connecting hardware resulting in wire down and fire ignition.” Equipment Failure – Connector/Hardware risk driver accounts for 6 percent of 243 ignitions, or 15.5 per year.

Similar to Chapter 10 discussed above, Chapter 11 of the RAMP identified fire mitigation efforts as past (2016), present (2017-2019) and future (2020-2022). Although the RAMP listed extensive fire mitigation efforts done, being done, or planned to be done, none directly addresses the risk of connecting hardware failure.

The 2017 RAMP was not the first PG&E document that connected equipment failure – connectors/hardware to fire. The draft Transmission Overhead Conductors cited fire risk in a discussion of the “Bolted Connector Program.” The Bolted Connector Program was apparently¹²² a name given to the replacement of bolted, parallel groove connectors, which began prior to 2009. As to the Bolted Connector Program the report sets forth: “M&C¹²³ only replacing bolted connectors during routine or emergency work with to those components identified during infra-red inspection or in areas identified as high fire risk.”

PG&E records also document a previous equipment failure – connector/hardware on the Caribou-Palermo line. The 2007 Rock Fire was caused by the failure of a connector on a Caribou-Palermo line.

The evidence clearly establishes, beyond a doubt, PG&E was aware of the causal relationship between fire and equipment failure on transmission towers. The vast majority of PG&E initiated fires were caused by something (a tree, an animal, a person, the ground, or a steel structure) coming into contact with an energized conductor. The entire purpose of the electric transmission system is to move electricity from point A to point B through the conductor. The entire purpose of all of the components of the overhead transmission system, except the conductor, is to keep the conductor safely hanging in the air. Essential to keeping the conductor hanging in the air is the hardware that connects the conductor to the structure. PG&E knows that if that hardware breaks the result is a wire down event. Despite all of this knowledge PG&E did absolutely nothing to identify and replace the worn hardware essential to keeping the conductor safely in the air.

¹²² This is the only reference to the Bolted Connector Program found in records provided by PG&E. Based upon the description of the program it refers to the replacement of bolted, parallel groove connectors.

¹²³ Maintenance and Construction

XIV. San Bruno

Early in the Camp Fire Investigation, San Mateo County District Attorney Stephen M. Wagstaffe generously and graciously assigned Senior Inspector James Haggarty to assist in this investigation. Senior Inspector Haggarty was the lead investigator on the San Bruno explosion and an expert on investigating PG&E. Senior Inspector Haggarty immediately began seeing parallels between PG&E Gas Transmission operations prior to the San Bruno explosion and PG&E Electric Transmission operations prior to the Camp Fire.

On September 9, 2010, a PG&E gas transmission line buried beneath a residential neighborhood in the City of San Bruno ruptured and exploded. The explosion and ensuing fire killed eight people, destroyed 35 structures and damaged many more. In 2014, after three years of investigation by city, county, state and federal law enforcement PG&E was federally indicted for multiple federal felony counts. PG&E was later found guilty of five felony counts by a federal jury in the Northern District of California. A transcript of the jury trial testimony and copies of all admitted exhibits were obtained from the Federal District Court in San Francisco. During that trial, testimony established two relevant factual issues: 1) PG&E record keeping was flawed; and, 2) PG&E inspection policies for the gas transmission lines were budget dependent.

During the San Bruno investigation and subsequent trial, the flaws in PG&E's historical records were exposed. Evidence established that for many of the older gas transmission lines PG&E had few records. Many of those gas transmission lines had been acquired from other gas companies and PG&E never made an effort to examine, evaluate and catalogue the components of those lines. Instead, PG&E used "assumed values" instead of inspecting the actual line to determine true values.

Similarly, during the Camp Fire investigation the evidence established that the Caribou-Palermo line was purchased from Great Western Power in 1930, and PG&E never made any effort to examine, evaluate and catalogue the line components.¹²⁴

The San Bruno investigation also established that PG&E was making inspection policy decisions based on budget. Testimony and documents presented during the Federal jury trial clearly established in the years prior to the San Bruno explosion, PG&E used the least expensive inspection method to inspect older gas transmission lines, including the San Bruno line that ruptured and exploded. The chosen inspection method was less expensive in two ways: 1) it was less expensive to execute; and, 2) it was not designed to actually detect pipe integrity flaws that would require immediate and costly repair or replacement. Prior to the Camp Fire, for the Caribou-Palermo line PG&E utilized the least expensive inspection method (air patrols) in a

¹²⁴ In a written response to a CPUC data request PG&E states "PG&E has not historically maintained an inventory of suspension hooks or their manufacturers, age or material composition. As a result, PG&E does not have an inventory of all transmission and distribution facilities in the entire PG&E service territory organized by location and the presence of suspension hooks similar to the Incident Location 1 suspension hook. Suspension hooks are common hardware on transmission structures and occasionally are used on distribution structures. In PG&E's service territory, there are in excess of 50,000 steel transmission structures, most of which have multiple suspension hooks of some type supporting insulators and other equipment. There are also suspension hooks on many of the nearly 100,000 non-steel transmission structures in PG&E's service territory. There are more than two million distribution poles in PG&E's service territory."

manner guaranteed not to detect any problems that would require immediate and costly repairs. Because troubleshooters were not finding safety problems requiring repairs, PG&E was able to devote capital budget funds to projects focused on improving reliability metrics.

The evidence uncovered during the investigation and presented during trial clearly established the San Bruno explosion was the direct result of the fact that, because of faulty record keeping, PG&E was unaware of the potential threat/defect in the San Bruno pipe. Because PG&E intentionally used an inspection method that could not detect the potential threat/defect, the threat/defect was not found.

XV. THE BUTTE FIRE

On September 9, 2015, a pine tree fell onto an energized PG&E distribution line in Amador County sparking the Butte Fire. The Butte Fire burned over 70,000 acres in Amador and Calaveras Counties, killed two people and destroyed hundreds of structures. Cal Fire conducted an investigation of the origin and cause of the Butte Fire. PG&E was not criminally prosecuted for the Butte Fire. A civil suit was brought against PG&E by the victims of the Butte Fire in the Sacramento County Superior Court. Early in the Camp Fire Investigation, records from the Butte Fire civil suit, including investigative reports and deposition transcripts, were obtained and reviewed.

The investigation into the Butte Fire focused on the PG&E vegetation management practices in the Stockton Division. Similar to the ETPM in the transmission division, PG&E had written policies for distribution vegetation management. Much like the Camp Fire investigation, the evidence uncovered during the Butte Fire investigation established as a result of reductions of the vegetation management budget, the written vegetation management policies were not being followed; vegetation management inspections and patrols were being conducted by unqualified, untrained, inexperienced personnel;¹²⁵ and PG&E was instructing those tree inspectors to ignore all but the most dangerous conditions. Additionally the evidence established PG&E had no quality assurance programs to monitor and evaluate the vegetation management program. As with the transmission inspection and patrol policies in effect at the time of the Camp Fire, PG&E relied solely on the observations of unqualified, untrained and inexperienced inspectors to identify dangerous conditions.

XVI. DROUGHT AND WIND

Since at least 2013, PG&E was aware of increased risk of catastrophic wildfires. Chapter 11 of the 2017 RAMP begins:

“Extreme weather, extended drought and shifting climate patterns have intensified the challenges associated with wildfire management in California. Environmental extremes, such as drought conditions followed by periods of wet weather, can drive additional

¹²⁵ The vegetation management program was conducted by hired contractors.

vegetation growth (fuel) and influence both the likelihood and severity of extraordinary wildfire events.

Over the past five years, as we have seen across California, inconsistent and extreme precipitation, coupled with more hot summer days, have increased the wildfire risk and made it increasingly more difficult to manage.

The risk posed by wildfires has increased in PG&E's service area as a result of an extended period of drought, bark beetle infestations in the California forest and wildfire fuel increases resulting from record rainfall following the drought, among other environmental factors. Other contributing factors include local land use policies and historical forestry management practices. The combined effects of extreme weather and climate change also impact this risk."

According to the United States Geological Survey¹²⁶ three of the five worst droughts¹²⁷ in California history have occurred since 2001. The three droughts listed are 2001-2002, 2007-2009 and 2012-2016. According to the U.S Drought Monitor¹²⁸ in 2012 the Feather River Canyon was classified as "Abnormally dry." By 2013 the Feather River Canyon was classified as "Severe Drought." By 2014, and through 2015, the Feather River Canyon was given the highest drought classification: "Exceptional Drought"

According to an internal PG&E presentation from late 2013 entitled "Wild Fire –Enterprise Risk", PG&E was already aware of the heightened fire risk. "Wild Fire risk in California is increasing due to weather conditions and resulting record low fuel moisture content. Fire activity has seen a significant increase in 2013 as compared to 2012 with PG&E responding to 36% more fires YTD. Acreage impact as compared to 2012 is almost doubled."

According to the presentation PG&E created "administrative zones for areas at highest risk of a major wildland fire and proactively addresses these areas through operational and asset management standards. Current administrative wildland fire boundaries encompass geographies which exhibit a combination of active fire history, fire prone vegetation, terrain that promotes rapid fire spread, and/or locations specified by existing regulations for special treatment." The presentation includes a map of "Wildfire Administrative Areas at PG&E." The Feather River Canyon, from approximately Beldon to Lake Oroville appears to fall within a Wildfire Administrative Area. Under the title "Lessons Learned: Previously-Approved Mitigation Activities" bolted connector inspection/replacement is listed with the note "Wild Fire zones are now a consideration for program rollout prioritization."

Also in 2013 PG&E published the "Wild Fire Administrative Zones in PG&E's Service Area" map. According to this map the Feather River Canyon is falls within an "Other Wildfire Area." In 2014 PG&E Transmission Asset Strategy compiled a list of all transmission structures located within the boundaries of a designated wild fire area. Approximately 85 towers on the Caribou-Palermo line between the Butte-Plumas County line and the Big Bend Substation were included

¹²⁶ ca.water.usgs.gov

¹²⁷ measured by precipitation and runoff

¹²⁸ <https://droughtmonitor.unl.edu>

on the list. Tower 27/222 for some unknown reason was not on the list, but Towers 22/187 through 23/192 (which did not exist in 2014 because they had collapsed in 2012) were listed.

According to PG&E documents, including publicly available reports, PG&E has its own meteorological department and continuously monitors data from both its own weather stations and government weather stations. The closest weather station to Tower 27/222 is the Jarbo Gap RAWS¹²⁹. Meteorologist Kris Kuyper analyzed data from the Jarbo Gap RAWS, as well as other government sources including the National Oceanic and Atmospheric Administration and the U.S. Drought Monitor and PG&E. According to Kuyper's analysis, although the winter of 2016-17 was very wet and broke the 2012-16 drought, the winter of 2017-18 was dry "abnormally dry." Although the season as a whole was abnormally dry, March and April were wet. As a result of spring rains, native grasses grew in abundance. In May the rain disappeared.¹³⁰ From June 1, 2018 through November 8, 2018, there was no measurable rain in Paradise.¹³¹

Because of the lack of rain, by November 8, 2018 the EDDI¹³² listed the Feather River Canyon in the ED3 or ED2 drought categories¹³³. Based upon the lack of rain and the EDDI statistics, Kuyper opined that the dry air was "taking moisture from the plants, draining the plants of their moisture, making them even drier than they should have been." As a result, on November 8, 2018 the Feather River Canyon was approaching "record dry levels of fuel (trees, shrubs, bushes, grasses)."¹³⁴

According to data from the Jarbo Gap RAWS station from 9:13pm on November 7, 2018 until 5:13am on November 8, sustained winds were between 24 mph and 32 mph with gusts between 41 mph and 52 mph. According to Kuyper this wind pattern was not unusual for Jarbo Gap. Based upon analyzing six years of wind data from the Jarbo Gap RAWS Kuyper determined that Jarbo Gap experiences this wind pattern approximately 20 times per year,¹³⁵ the majority of which occur from October through February.¹³⁶

According to Kuyper, the Jarbo Gap winds occur as the result of a difference in atmospheric pressure between east of the Sierra Nevada and west of the Sierra Nevada. Higher pressure over the Great Basin in Nevada forces air west, towards lower pressure on the west side of the Sierra Nevada. The Sierra Nevada blocks this, except through gaps and passes such as the Feather River Canyon. The air is then channeled through the gaps and passes, which accelerates the flow of air. Cold air flowing downhill also causes acceleration.

¹²⁹ Remote Automated Weather Station

¹³⁰ Average rainfall in Paradise area in May is approximately .5". May, 2018 rainfall for Paradise was .14".

¹³¹ Average rainfall in Paradise area in October is approximately 3".

¹³² Environmental Demand Drought Index, esrl.noaa.gov

¹³³ On a scale of 0 – 4. 0 being normal, ED2 is defined as "Severe Drought." ED3 is defined as "Extreme Drought." 4 being "Exceptional Drought."

¹³⁴ <https://gacc.nifc/once/fuelsFireDanger.php>

¹³⁵ From 2013-2019, 118 individual events with wind gusts over 45mph, 66 individual events with wind gusts over 50 mph.

¹³⁶ October averages more than 5 events per month, November averages under 2.

Internal PG&E records established PG&E has known since the mid-1980s that high winds constitute a serious threat to its electric transmission assets. In 1990, PG&E Research and Development published the “Extreme Wind Speed Estimates Along the PG&E Transmission Line Corridors” report. The report was the result of a five year study, recommended by the CPUC, “to assess the adequacy of PG&E’s power wind loading design criteria” after five separate incidents in which transmission line assets were toppled during wind storms in 1982 and 1983. The report mainly focused on the 500kV transmission line corridors. According to the report “Electric transmission lines in the PG&E service area were originally designed to withstand wind loadings associated with 1-minute average gusts to 57 miles per hour (mph). The report concludes the original PG&E wind loading criteria for transmission lines was inadequate at some locations and needed upgrade. According to the reports, from November 1984 through November 1985 PG&E had wind meters installed at the Cresta Reservoir and the Rock Creek Reservoir in the Feather River Canyon. Both locations recorded gusts in excess of 50 mph hour in November, 1984 (54.6 mph) and February, 1985 (70.9 mph).

In 1999, PG&E Technical and Ecological Services published an updated “Extreme Wind Speed Estimates Along the PG&E Transmission Line Corridors.” The report stated “Electric transmission lines throughout the PG&E service area were originally designed to withstand wind loadings of 70 miles per hour.” No explanation was given as to why the original wind loading design increased from 57 miles per hour (as stated in the 1990 report) to 70 miles per hour between 1990 and 1999. Although not stated as a justification for the update, the report did note that severe storms in January, March and December of 1995 caused approximately \$100 million damage to electrical transmission and distribution systems. The report mainly focused on the 500kV transmission line corridors and Bay Area, while noting a lack of wind data from the Sierra Nevada and northeastern areas. The report did include the 1984-85 wind speed data from the Rock Creek and Cresta reservoirs.

The 1999 report included a section entitled “Santa Ana Type Winds.” According to the report Santa Ana type winds occur because “High pressure frequently forms in the Great Basin area of the Rockies in the vicinity of Utah and Nevada during winter months. When pressure builds beyond a critical point, air spills through the mountain gaps, gaining momentum as it flows to lower elevations.” The report recognized although mainly thought to be a Southern California phenomenon, Santa Ana type winds do occur in Northern California, mainly in the Tehachapi region near Bakersfield.

In 2015, PG&E Applied Technology Services published the “Extreme Wind Speed Estimates Across the PG&E Service Territory” report. This report updated and built upon the previous wind reports. According to the report “major wind storms” occurred in December, 2005, January, 2008, October, 2009 and January 2010. The report did not mention the December, 2012 wind event that toppled five Caribou-Palermo line towers.¹³⁷

The 2015 wind report refers to “Offshore/Northerly Wind Events.” According to the report:

¹³⁷ According to historical wind data for RAWS available at <https://wrcc.dri.edu> the maximum wind gust speed recorded by Jarbo Gap RAWS on December 21, 2012 was 30 miles per hour.

These events occur when surface high pressure develops north or east of the territory, which sometimes occurs as storm systems bypass California to the north and drop southeast of the territory generally east of the Sierra Nevada. This pattern produces a northerly to easterly pressure gradient and offshore winds. When flowing downhill these winds are known as ‘katabatic’ winds and are also named by geographic location in some instances (e.g. Diablo, Mono).

The wind report does not recognize the Feather River Canyon/Jarbo Gap winds. The wind report does conclude:

“The quality and precision of the data is proportional to the density of weather stations in the analysis and is generally higher in the Bay Area and Central Valley where station coverage is robust and lower in the Sierra Nevada and Coastal Ranges. Since wind speeds were produced from the RAWS in the more remote terrain in the Sierra Nevada and north and south Coast Ranges and since RAWS are more often located in more exposed terrain, the isotachs¹³⁸ ... typically represent ridge top winds.”

According to the report the “most notable offshore wind event in recent history occurred on November 30 to December 1, 2011, which produced katabatic winds across the Sierra Nevada and the elevated terrain of the Bay Area and Central Coast. Wind gusts from 40-60 mph were observed across the central and southern Sierra Nevada foothills...” According to historical wind data from the National Oceanic and Atmospheric Administration gusts of 66 mph were recorded at Jarbo Gap on November 30, 2011.

The report also concluded “Offshore or Northerly wind events are typically associated with extreme fire danger and can be strong enough to produce widespread damage to distribution and transmission infrastructure.”

This natural phenomenon has been occurring for many years. Exponent also analyzed the wind in the Feather River Canyon. According to the Exponent Report, the Caribou-Big Bend section of the line experienced the highest average wind speed, the highest average time at high wind conditions and the highest percentage of towers that experience more than 605 hours of high wind conditions per year of the comparison transmission lines.

During its investigation, the CPUC asked PG&E if PG&E had “ever done a wind loading study” on Tower 27/222. In its written response¹³⁹ PG&E stated “A wind loading study was completed as part of the initial installation of the transmission line between 1919 and 1921” and “PG&E’s understanding based on its records is that no additional wind loading studies were performed on the two towers (27/222 and 27/221) since the installation of the transmission line between 1919 and 1921. PG&E’s transmission line design criteria do not require analysis on structures for which no significant work is proposed.” According to the design criteria listed in PG&E’s written response, the towers were designed to withstand winds of approximately 56 miles per hour. During the short period of time that wind meters were installed at the Cresta Reservoir and

¹³⁸ An isotachs is a line on a map connecting points of equal wind speed.

¹³⁹ CPUC Data Request SED-002, Question 27.

the Rock Creek Reservoir in the Feather River Canyon, PG&E recorded wind gusts over 70 miles per hour. From 2013 to 2019 the Jarbo Gap RAWS station recorded wind gusts over 50 miles per hour over 60 times. Despite the fact the towers of the Caribou-Palermo line were routinely subjected to winds at or near their design criteria, PG&E never inspected or tested any of the towers or components for wind damage.

Based upon the meteorological data, PG&E knew that the Feather River Canyon was a drought ravaged tinderbox. Based on their own reports, PG&E also either knew or should have known the Feather River Canyon experiences katabatic winds during the fall when the fire danger is highest. Despite its own meteorological data, PG&E chose not to replace the aged and deteriorating conductor and components on the Caribou-Palermo line.

XVII. PUBLIC SAFETY POWER SHUT-OFF

On November 6, 2018, PG&E issued a Public Safety Power Shut-Off (PSPS) notice to approximately 70,000 PG&E customers in nine California counties, including Butte. The PSPS notified customers of potential de-energization of power lines on November 8, 2018, based upon meteorological forecasts. On November 6 and November 7 PG&E went to great lengths to notify customers in the nine counties of the potential de-energization¹⁴⁰ on November 8, 2018. On November 8, 2018 PG&E decided not to de-energize power lines.

An initial focus of the Camp Fire Investigation was the decision by PG&E not to de-energize power lines in the Feather River Canyon prior to ignition of the Camp Fire on November 8, 2018.

The PG&E PSPS Policy was enacted in September, 2018. A PSPS guide was published on the PG&E website {[Attachment - Public-Safety-Power-Shutoff-Policies-and-Procedures-September-2018](#)} in September 2018. PG&E's PSPS Policy was enacted based upon a CPUC decision in July, 2018¹⁴¹ to allow electrical utilities to pro-actively de-energize¹⁴² at-risk power lines during wind events. The PSPS guide publicly available on the PG&E website broadly described the meteorological conditions necessary for de-energization. The publicly available PSPS guide used the term "power lines" and did not differentiate between distribution and transmission lines or by voltage or area.

Based upon the meteorological data, {[Attachment - Jarbo Gap Weather Station Readings](#)} the conditions in the Feather River Canyon in the hours prior to the failure of the C hook on Tower 27/222 exceeded the wind conditions necessary for de-energization under the publicly posted PSPS guidelines.

However, the Butte County DA obtained copies of the PSPS policy filed by PG&E with the CPUC. The actual PSPS policy was much more detailed and specific than the guide published

¹⁴⁰ In layman's terms shutting off the power.

¹⁴¹ CPUC Resolution ESRB-8.

¹⁴² In layman's terms shutting off the power during high wind events to avoid fires caused by contact between energized power lines and objects such as vegetation.

on PG&E's public website. As opposed to the publicly posted PSPS guide, the official PG&E PSPS policy differentiated between transmission and distribution lines. The actual policy specifically and explicitly exempted all 115kV, 230kV and 500kV transmission lines from the PSPS. After comparing the PSPS guide published on the website with the actual PSPS policy, it appears the authors of the public PSPS guide, in an effort to make the guide understandable to the average PG&E customer, simplified the policy to an extent that became misleading.

Additionally, the transmission and distribution lines in the Feather River Canyon were not within the area of PSPS program. According to internal PG&E documents, inclusion of 115kV transmission lines in the new PSPS program was initially considered. The committee drafting the PSPS policy explored three transmission line options: 1) all 70kV and below; 2) all 115kV and below; 3) all 70kV and below and some 115kV depending upon factors such as location within high fire threat areas. Ultimately the committee settled on all 70kV transmission lines and below and exempted all 115kV transmission lines from the PSPS program. PG&E did not provide any written documents explaining or justifying this decision. However, based upon all the documents provided, there was no evidence the decision to exempt all 115kV transmission lines and above was reckless or criminally negligent. Based upon the 2018 PG&E PSPS policy, the Caribou-Palermo line was not subject to de-energization prior to the ignition of the Camp Fire and was therefore not included in any PSPS. However if PG&E had included 115 kV lines, the Caribou-Palermo line should have been included based on the extreme wind conditions in the Feather River Canyon.

XVIII. KNOWLEDGE OF RISK/CONSEQUENCE

Internal PG&E documents show that by 2006 PG&E was aware that equipment failure (risk) causes fires. According to the October 2006 Risk Analysis of Urban Wild land Fires, written by the PG&E Enterprise Risk Management Committee, in 2005 PG&E electrical equipment failures caused 20 fires. That same document defined the Urban Wild Land Interface area as the "geographical area where structures and other human development meets or intermingles with wild land or vegetative fuels" and lists aging infrastructure as a potential "gap" in PG&E's fire mitigation efforts. Another potential gap identified by PG&E is "our asset strategy to address urban wildland fires is limited." To mitigate this potential gap the report included the following "Proposed Solutions:"

- Identify urban wildfire geographic area
- Identify quick result items such as:
 - Perform patrols/inspections just before fire season
 - Replace parallel groove (PG) connectors
 - Inspect equipment that could be high risk.

The 2009 Enterprise Risk Management Urban Wildland Fire Risk Review report written for the Executive Management Committee specifically listed as fire risk drivers:

- Failure to perform quality inspections or workmanship
- Inadequate procedures relating to fire danger
- Failure to consider local conditions in design standards

Improperly maintained equipment
Failure to replace aging equipment.

Under “Current Mitigation Activities,” the report specifically listed “Equipment maintenance and replacement programs, including patrols and inspections.”

These themes were repeated in Enterprise Risk Management (ERM) reports for several years.

“EMC: Electric T&D Asset Road Map,” an internal PG&E document believed to have been published within the company in 2010, stated:

“For more than twenty years, PG&E’s asset management practices have focused on maximizing the utilization of T&D¹⁴³ assets and reducing capital investments to the greatest extent possible. Only recently has the Company utilized an alternate approach that places a higher value on reliability and operational flexibility of the electric T&D system. It is recommended that PG&E continue this current approach to pursue a combination of measures designed to upgrade and modernize its aging electric T&D assets.”

In the section of the document entitled “Aging Assets” it is stated:

“While much has been done in the last several years to improve the design, maintenance and operations of the system, the Company’s electric T&D assets comprise an aging system that it operated close to its design capacity limits. Many of our electric T&D facilities were installed in the 1950s and planned lifetime design for these facilities is 40 years. Continuing to rely on aging facilities has increased the Utility’s risk of equipment failure and extended service interruptions. Additionally, the repair time and costs for failed equipment is much higher than planned replacement.”

In December 2018, in response to questions from the Honorable William Alsup, Judge of the United States District Court, Northern District of California, PG&E submitted to the Federal District Court a list of all fires caused by PG&E 2014-2017. 2017 { [Attachment – PGE caused fire 2014-17](#) }. According to the list there were eighteen fires caused by equipment failures on transmission lines.

The list submitted to the Federal District Court did not include the 2008 Rock Fire and the 2018 Murphy Fire,¹⁴⁴ both of which occurred in the Feather River Canyon and both of which were caused by equipment failures on transmission lines. The Rock Fire was caused by the failure of a connector on a tower on the Caribou-Palermo line. The Murphy Fire was caused by the failure of a connector on a tower on the Caribou-Table Mountain 230kV transmission line. In both fires the failure of a connector allowed an energized jumper conductor to make contact with the steel tower structure and sent a shower of molten metal onto dry vegetation at the base of the tower.

In the 2017 RAMP, PG&E clearly identified equipment failure as a known cause of fire. According to section C of Chapter 11, Drivers and Associated Frequency, there were an average of 243 fires per year during 2015-16 caused by PG&E. Of those 243, on average 82.5 (33%)

¹⁴³ PG&E abbreviation for Transmission and Distribution

¹⁴⁴ The Murphy Fire occurred on August 6, 2018. The origin of the fire was directly below a PG&E transmission tower – not the Caribou-Palermo line – just west of Belden in the Feather River Canyon. The fire was caused by equipment failure – specifically failure of a connector – which allowed an energized 230kV conductor to come into contact with steel tower structure.

were caused by equipment failure. Equipment failure caused fires are broken down into Conductor (29.5 per year), Connector/Hardware (15.5 per year) and Other (37.5 per year).

The evidence clearly established PG&E has been aware of the risk/consequence connection between equipment failure and fire since at least 2005. Similarly, the evidence also clearly establishes that PG&E was aware of the risk/consequence connection between aging infrastructure and equipment failure.

In 2009 PG&E retained Quanta Technologies to review, assess and critique the electrical transmission system. In 2010 Quanta submitted to PG&E the Transmission Line Component Management Report. The report was divided into a series of individual reports. Each report focused on a component of the electrical transmission system. Not all of the reports were relevant to the risk of equipment failure on transmission towers.

Relevant individual reports and information in those reports was summarized:

Transmission Line Component Management Executive Summary

“As part of a comprehensive effort to manage its infrastructure PG&E Transmission Asset Management has begun study of all components of transmission line infrastructure, both overhead and underground, to develop an understanding of the component behavior over its installed service life. The intent of this effort is to ultimately develop an understanding of what the expected service life of line components should be, given normal operating and maintenance practices of the service life. This understanding also drives decisions of what the “normal” operating and maintenance practices should be to allow a component to survive to an “end of service life” condition, barring external events that cause sudden or catastrophic failure of a component (e.g. severe weather event, vehicular impact).”

“Certain aspects of a utility maintenance program can be characterized as following a “run to failure” philosophy. The practice of allowing equipment to fail often applies to utility equipment that is large in total population but low in overall impact to the system and/or customer reliability.”

“Run to failure as a maintenance philosophy has a place in the overall maintenance program of a utility. The equipment managed under this philosophy, however, is generally high volume, low risk facilities. Operational risk, technical effectiveness, and financial considerations drive the determination.”

Conductor and Fittings

“Based on PG&E conductor inventory data, the average age of 115 kV copper conductor on the PG&E system is 75 years. Conductor other than copper at 115 kV averages 36 years of age.¹⁴⁵”

“The overall age of conductor is a concern to most utility asset managers and the concern is based primarily in lack of knowledge of what is to be expected from aging conductor.”

¹⁴⁵ The conductor on Tower 27/222 was aluminum.

“Greatest risk of failure in transmission conductors is thought to be with the oldest steel reinforced conductors¹⁴⁶.”

Insulators

“...the failure rate of porcelain increases at a faster rate as they age beyond 50 or so years. Nonetheless, even with increasing failure rate, porcelain is only projected to a rate of 0.06 failures per at age 60.”

“Industry has come to expect a service life for porcelain and glass insulators beyond 50 years. The service life is contingent of course on the original quality and proper application of the units.”

“...lack of data consistency and accuracy result in the need for many assumptions to address data voids. Accurate information on insulator type (porcelain, glass, poly), vintage, manufacture, date of installation, and location is critical to building a dataset that will facilitate meaningful statistical analysis over the service life of the material.”

Structures

63% of the 104 electrical utilities surveyed utilized routine climbing inspections as part of inspection policy. The average inspection period for climbing inspections was 4.2 years.

44.4% of PG&E 115kV structures were installed prior to 1931.

Component service life was calculated based upon condition and environment. Environment was further divided by “Mild,” “Avg.” and “Severe.” For “Twr attachments : Susp/Jumper.” for the condition “Wear” and environment “Wind run” the component life in years is Mild – 80 years, Avg – 57 years, and Severe – 35 years.

“With recognition of the issues associated with aging infrastructure, more attention is expected to be given to steel tower condition throughout the industry.”

“Inspection, repair, and refurbishment of steel structures and associated components (guys, anchors, foundations, etc.) are a critical part of the ongoing maintenance and management of the transmission infrastructure. Normal aging and deterioration, coupled with years of inadequate inspection and maintenance, put many structure at a point of less than desired structural integrity.”

“A comprehensive maintenance and inspection program for an aging structure population should include a diagnostic testing component, particularly when structures reach and age threshold that is appropriate. That threshold varies by many factors: geographic location and associated environmental conditions, age of infrastructure, proximity to other infrastructure, historical performance of similar vintage structures in the company, etc.”

¹⁴⁶ Steel reinforced conductor has a solid steel core to increase the strength of the conductor. The conductor on Tower 27/222 was steel reinforced.

“An effective strategy for structure and foundation management would include elements such as:

Routine visual inspections by ground patrol and aerial patrol as part of general line inspection process,

Comprehensive climbing inspection at 3-5 year intervals,

....

Laboratory testing of components removed from service as part of repair or replacement work to determine overall condition and remaining strength of material.”

“For a population of structures and foundations such as exists at PG&E, the leading criterion for determining inspection and testing targets, would initially be age. With a structure population age span of over 100 years (according to inventory records), a programmed sampling of the population over 80 years of age to test structure and foundation integrity would be an appropriate beginning.”

According to Figure 9.1¹⁴⁷ the only structures still in use at the time of the report that were built prior to 1923 (87 years of age at time of report) were 115kV structures. According to a footnote to Figure 9.1 and subsequent figures in section 9, there are 6908 115kV structures for which PG&E has no age data. According to other PG&E reports there are 18,800 115kV structures in the PG&E inventory.

The evidence developed during this investigation clearly establishes that PG&E essentially ignored the recommendations of the Quanta Reports. PG&E did not adopt any new policies or procedures for inspection of the oldest transmission assets. There is no evidence of a programmed sampling of the oldest structures and foundations. Even the collapse of five Caribou-Palermo line structures in 2012 did not cause PG&E to take a closer look at one of their oldest transmission assets. In 2010 the TLine Structures Committee met to review the Quanta Reports. Neither The Senior Engineer nor the former Transmission Specialist, members of the TLine Structures Committee and “Required Attendees” of the 2010 meeting, had any recollection of the alleged meeting or any recommendations regarding the Quanta Reports made by the committee. Neither was able to shed any light on the question as to why the recommendations of the Quanta Reports were not adopted. According to the Senior Director of Transmission Asset Management, who was not involved in the TLine Structure Committee at the time of Quanta Reports, the recommendations of the Quanta Reports were ignored because “we could not rely on the information in the Quanta study.” The Senior Director explained:

“The Quanta study did not look at asset data from those utilities but rather business practices from those utilities. The only age information and corresponding failure data that was used in that study was associated with the subset of assets that failed in a two-year period within PG&E and made some assumptions that made the statistical analysis incorrect. So it wasn't sufficient for us to justify significant amounts of investments in the

¹⁴⁷ A line graph displaying the age distribution of PG&E transmission structures.

future, and we needed to do additional analysis in order to build the case for our regulators to be able to justify requesting authorization to be able to make additional investments in the infrastructure based on the results of that bullet point at a later date.”

The Senior Director of Transmission Asset Management also stated “I didn't have high confidence in the Quanta study so we intended to do additional benchmarking and collaboration in the industry in order to come up with more robust information.”

In addition to general knowledge of the problems of wear and failure in aging infrastructure, PG&E had specific knowledge that C hooks and hanger holes suffer rotational body on body wear as far back as 1987.

According to internal PG&E documents, in 1987 a transmission line crew noticed concerning wear patterns on both the C hooks and the hanger holes on the Oleum-G transmission line¹⁴⁸. The transmission line supervisor removed the C hooks and hanger holes from the tower structure and sent them to the PG&E Lab for analysis. The PG&E lab evaluated the C hooks (referred to as J hooks in the report) and hanger holes (referred to as attaching plates) and issued a Laboratory Test Report on February 9, 1987. According to the report “Both of the J-Hooks and their attaching plates had grooves worn in them and there was concern that they may not be able to hold the weight of insulator strings that are suspended from them.” The lab report included photographs of the C hooks and the hanger holes. Figure 1 of the report is a picture of one of the C hooks. According to the caption to Figure 1 “As shown in the Figure above a wear pattern was formed in the bowl-saddle of the J-hook. This was possibly caused by the insulator string swinging in the wind over a period of time.” Figure 2 of the report is a photograph of one of the hanger holes. According to the caption to Figure 2 “This figure shows the key-hole wear in the plate eye caused by the J-hook while in service.”

In 2011, PG&E transmission line crews working in the South Bay, observed similar wear on hanger holes on the Jefferson-Hillsdale transmission line. Photographs were taken of the wear and sent to PG&E engineers. After reviewing the photographs a Supervising Engineer responded via email “Looking at the photo of the hanger plate. I would recommend changing it to a new plate. It appears that there is a groove cutting into the plate probably caused by years of rubbing between the c-hook and the plate.”

In March of 2018, PG&E transmission line crews working on a transmission line in the East Bay observed similar wear on hanger holes. The transmission line supervisor, removed the hanger plates from service and sent them to the PG&E Lab for review and analysis. On June 20, 2018, the PG&E Lab issued a report entitled “Metallurgical Evaluation of Insulator Suspension Plates from the Parkway-Moraga 230 kV line at structure 020/115. The report found that “the wear was attributed to wind-driven swinging of the insulators (wind-sway).” The report opined a wear rate of .007” per year and a useful life of the hanger plates of 97-100 years based upon the wear rate and the expected strength of the remaining metal.

The evidence establishes that PG&E is aware that wear increases with age, the possibility of equipment failure increases relative to the amount of wear, and, ignition of a fire is a definite

¹⁴⁸ The Oleum-G transmission line is located in Contra Costa County, just south of the Carquinez Bridge and near the community of Valona. The Oleum-G line is one of the segments of the original Caribou-Valona line still in service. It is believed, but not confirmed that the tower from which the C hooks and hanger holes were removed was an original, 1921 Caribou-Valona tower and the worn C hooks were vintage 1921.

possible consequence of equipment failure. It is clear, based upon the internal PG&E documents that PG&E has clearly understood, at least since 2006, the correlation between aging infrastructure and fire.

The Quanta Reports and internal PG&E reports clearly established a connection between wear and inspection/patrol. From the October 2006 Risk Analysis of Urban Wild land Fires through the 2017 RAMP inspection and patrol are specifically listed mitigation to fire threat. Since 2005 PG&E electric transmission inspection, patrol and maintenance policies are set out in the Electric Transmission Preventative Maintenance Manual (ETPM). According to section 1.2 of the ETPM “Inspection and patrol procedures are a key element of the preventive maintenance program. The actions recommended in this manual reduce the potential for component failure and facility damage and facilitate a proactive approach to repairing or replacing identified, abnormal components.”

XIX. PERSONAL LIABILITY FOR PG&E EXECUTIVES

During the course of the Camp Fire investigation, many witnesses from PG&E were interviewed and examined under oath by the Grand Jury. Many, many internal discussions were had as to whether there was sufficient evidence to indict any individual PG&E personnel or executives. It was finally determined based on the current state of the law in California and the facts discovered during the investigation that there was insufficient evidence to proceed against individuals.

A. The Law:

Many people have heard of or understand the concept of “Respondeat superior” (Latin for “Let the Master answer”) in which an organization’s top executives are held **vicariously liable** for the actions/omissions of their subordinates regardless of the executive’s personal participation or knowledge. However this is a **civil concept** that does not apply in **criminal** cases. The leading California case in the area of **corporate officer criminal liability** is *Sea Horse Ranch, Inc. v. Superior Court* (1994) 24 Cal. App. 4th 446, which states: “[A]n officer of a corporation is not criminally answerable for any act of a corporation in which he [or she] is not personally a participant. In the context of negligent homicide such an officer would be said not to be liable unless he or she was personally aware of the omissions or other behavior that gives rise to the criminal negligence. The decisions involving criminal liability of corporate officers, either expressly or impliedly, focus either on the officer’s direct participation in illegal conduct, or his or her knowledge and control of the illegal behavior. **The mere fact of the officer’s position at the apex of the corporate hierarchy does not automatically bestow [criminal] liability.**”

B. The Facts:

Based upon the forensic analysis of the failed “C” hook from the suspect tower, it was the opinion of the experts consulted that the wear which caused the hook to break occurred gradually over almost 100 years. It is our belief the wear had been visible for at least 50 years. Over the past 50 years scores of PG&E employees should have been in a position to observe the wear. However, none of the employees documented the wear. Since nobody apparently noticed the wear, it would be impossible to prove any single person was negligent. Additionally PG&E

culture made decision-making “by committee” a standard, virtually eliminating individual responsibility. A “silo mentality” also pervaded the company in which departments and management groups did not share information, goals, tools, priorities and processes with each other. (E.g. The PG&E Tower Division took responsibility for maintenance of the steel tower structures. The PG&E Line Division took responsibility for the maintenance of the power lines. The “C” hooks seemed to fall between their two responsibilities – i.e. neither took responsibility for the hooks, assuming the other division was responsible, which left the hooks as orphan equipment.)

C. Conclusion:

Many of the decisions that ultimately lead to the Camp Fire were made in the 1980s, 1990s and 2000s. It would be almost impossible to prove a person making decisions in 1995 knew the decision was creating the risk of a catastrophic fire over 20 years later and either disregarded or ignored that risk. **But the corporation as an entity is tasked with that knowledge and reckless behavior and was so indicted.**

XX. ELEMENTS OF THE OFFENSES

Unlawfully Causing a Fire to a Structure/Forest land (Pen Code § 452(c))

- a. PG&E set fire to, or burned, or caused the burning of a structure or forest land or property;
- b. PG&E did so **recklessly**;
- c. The fire burned an inhabited structure or the fire caused great bodily injury to another person.

Definition of Recklessly

A corporation acts recklessly when:

- a. It is aware that its actions present a substantial and unjustifiable risk of causing a fire.
- b. It ignores that risk
- c. Ignoring the risk is a gross deviation from what a reasonable person would have done in the same situation.

Involuntary Manslaughter (Pen. Code §192(b))

- a. PG&E had a legal duty to the decedents
- b. PG&E failed to perform that legal duty;
- c. PG&E’s failure was **criminally negligent**;
- d. PG&E’s failure caused the death of decedents

Definition of Criminal Negligence

- a. Criminal negligence involves more than ordinary carelessness, inattention, or mistake in judgment. A corporation acts with criminal negligence when:

- i. It acts in a reckless way that creates a high risk of death or great bodily injury;
- ii. A reasonable person would have known that acting in that way would create such a risk.
- b. In other words, a corporation acts with criminal negligence when the way it acts is so different from how an ordinarily careful person would act in the same situation that its act amounts to disregard for human life or indifference to the consequences of that act.

XXI. DUTY

On September 24, 2016, the Governor signed 2016 Cal SB 1028. SB 1028 added Chapter 6 to division 4.1 of the California Public Utilities Code. One of the newly created sections was 8386, which took effect on January 1, 2017. Section 8386 created a statutory duty on electrical utility companies. Section 8386(a) states “Each electrical corporation shall construct, maintain, and operate its electrical lines and equipment in a manner that will minimize the risk of catastrophic wildfire posed by those electrical lines and equipment.”

California Public Utilities Code section 451, enacted in 1951 and amended in 1977, states “Every public utility shall furnish and maintain such adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities, including telephone facilities, as defined in Section 54.1 of the Civil Code, as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public.”

The California Public Utilities Commission promulgates regulations known as General Orders (GO). GO 165 section IV states “Each utility shall prepare and follow procedures for conducting inspections and maintenance activities for transmission lines.”

GO 95 includes multiple rules that apply to electrical transmission line safety, including:

- 1) Rule 31.1
Electrical supply and communication systems shall be designed, constructed, and maintained for their intended use, regard being given to the conditions under which they are to be operated, to enable the furnishing of safe, proper, and adequate service. For all particulars not specified in these rules, design, construction, and maintenance should be done in accordance with accepted good practice for the given local conditions known at the time by those responsible for the design, construction, or maintenance of communication or supply lines and equipment.
- 2) Rule 31.2
Lines shall be inspected frequently and thoroughly for the purpose of ensuring that they are in good condition so as to conform with these rules. Lines temporarily out of service shall be inspected and maintained in such condition as not to create a hazard.
- 3) Rule 18
Each company (including electric utilities and communications companies) is responsible for taking appropriate corrective action to remedy potential violations of GO 95 and Safety Hazards posed by its facilities.

4) Rule 44.3

Lines or parts thereof shall be replaced or reinforced before safety factors have been reduced (due to factors such as deterioration and/or installation of additional facilities) in Grades “A” and “B” construction to less than two-thirds of the safety factors specified in Rule 44.1 and in Grade “C” construction to less than one-half of the safety factors specified in Rule 44.1. Poles in Grade “C” construction that only support communication lines shall also conform to the requirements of Rule 81.3A. In no case shall the application of this rule be held to permit the use of structures or any member of any structure with a safety factor less than one.

XXII. CONCLUSION

The evidence developed during this investigation clearly established that the reckless actions of PG&E created the risk of a catastrophic fire in the Feather River Canyon, that PG&E knew of that risk and PG&E ignored the risk by not taking any action to mitigate the risk.

The C hook that broke was at least 97 years old. The exact age of the C hook is unknown because PG&E has no record of the hook. Ninety-seven (97) years is assumed because the Caribou-Valona transmission line, of which the Caribou-Palermo line is a segment, went into service in 1921. The records from the Great Western Power Company establish the entire line was built between 1918 and 1921. There are no records of when each tower was built. It is possible Tower 27/222 was built in 1918 and the C hook had been hanging for 100 years as of November 8, 2018. The same is true of the insulator string and the jumper conductor hanging from the C hook.

PG&E also has no records, and no idea, by whom the C hook was made, and more importantly, of what type of metal and how the C hook was made. The type of metal and the process of manufacture are what determines the hardness of metal. The transposition towers were designed to allow for movement of the conductor and insulator. The fact the C hook was constantly rubbing back forth against the hanger hole was known. The concept of body-on-body wear from constant rubbing together of two metals is a long established and well known phenomenon. Also long established and well known is the fact the various hardness of the metals rubbing together plays a key role in the body-on-body wear. The fact that PG&E relied on a 97-100 year old C hook it knew nothing about to hold an energized 115kV conductor is, by itself, negligent and reckless.

It is also disturbing that PG&E’s only information of the composition of the conductor running through Tower 27/222 comes from a 1922 article in an engineering journal. A conductor is the wire that carries electricity from Point A to Point B. A conductor is the most important component of the transmission system. Everything else in the transmission system is designed around the conductor. PG&E has owned the Caribou-Palermo line since 1930. Based upon the lack of records PG&E has never made any attempt to inventory and catalogue the conductor. The fact that PG&E was using a 97-100 year old conductor for which they knew almost nothing is evidence of absolute indifference on the part of PG&E.

Perhaps even more disturbing is the fact the conductor was aluminum reinforced with a steel core. 452.3 kcmil Aluminum Conductor Steel Reinforced to be exact. According to the Quanta report the average age of non-copper conductor was 36 years and the “greatest risk of failure in transmission conductors is thought to be with the oldest steel reinforced conductors” Although PG&E knew almost nothing about the conductor they did know it was at least 97 years old and made of steel reinforced aluminum. Despite this knowledge, PG&E did nothing and made no plans to replace that conductor. Even though because of updated NERC guidelines, PG&E was forced to replace conductor on some segments of the Caribou-Big Bend section, they elected to leave in place the 97-year-old aluminum steel reinforced conductor in other areas. The fact that the Senior Director of Transmission Asset Management preached the cost effective value of bundling projects but had no plans through 2022 to replace the 97-year-old aluminum, steel-reinforced conductor speaks volumes. What it says is that PG&E fully intended to run that conductor to failure. A reasonable person doesn’t need an electrical engineer or Quanta Technologies to tell him that failure of an energized 115kV is extremely dangerous. PG&E’s decision to leave the 97-year-old aluminum, steel-reinforced conductor in service was extraordinarily reckless.

In addition to basic engineering principles and common sense, PG&E had actual knowledge that both the C hooks and the hanger holes suffer wear and would eventually break if not replaced. At some unknown point between 1921 and 2018 somebody added the hanger plate brackets to Tower 27/222. Although there are no records of when or why the hanger plate brackets were added the only reasonable conclusion, based upon the wear observed on the original hanger holes, is somebody noticed the wear and was concerned enough to take action.

In 1987 PG&E had absolute knowledge of the wear to both the C hooks and hanger holes. The photographs in the 1987 Laboratory Report document channeling on the C hooks and key holing on the hanger holes similar to what was found on the Caribou-Palermo line. The similarities are not surprising because the transmission line on which the C hooks and hanger holes were found, the Oleum G line, was also part of the original Caribou-Valona line. The fact PG&E chose to only perform tensile strength testing in 1987 and did not subject the hooks and hanger plates to metallurgical analysis tends to show PG&E was not concerned with the wear or the expected useful life of the hooks and holes. Although in 1987 the evidence indicated at least some action was taken based upon the observed wear on the C hooks and hanger holes, when similar wear was found on hanger holes on the Jefferson-Hillsdale transmission line in 2011 the only action taken was the replacement of the hanger plates. According to the email string a PG&E Engineer correctly surmised that this wear was “probably caused by years of rubbing between the c-hook and the plate.” Based upon the reaction, or lack thereof, to the photographs of the wear it appears that the wear was neither a surprise nor was it considered a major issue by PG&E engineers.

In 2018 the discovery of keyhole wear on hanger plates on the par transmission line caused enough concern that the Transmission Line Supervisor sent the plates to the PG&E lab for analysis and evaluation. Unlike in 1987, in 2018 the lab actually did a metallurgical evaluation. A PG&E lab scientist, with a PhD in Material Science and Engineering, used the available data

to opine the keyhole wear was occurring at a rate of .007 inches per year. Based upon the average wear rate, the PG&E lab scientist determined the useful life of those hanger plates to be between 97 and 100 years. PG&E now had scientific confirmation of the body-on-body wear caused by the constant movement of the C hooks within the hanger holes and had an estimate of average wear per year. Nothing was done. The report was not distributed through the company and no targeted inspections of older C hooks and hanger holes were ordered. Based upon this report, a reasonable person, knowing they had C hooks which were 90+ years old hanging in hanger holes that were 90+ years old would have taken immediate action to determine the condition of those hooks and holes. The fact PG&E did nothing is evidence of complete and absolute indifference to the inherent danger of a C hook or hanger hole breaking.

Knowledge of the danger inherent in a C hook or hanger hole breaking is firmly established in PG&E documents. Since at least 2006, PG&E has recognized bad things, especially fire, happen when equipment failures occur on transmission lines. Everything in the overhead electric transmission system is designed to keep the conductor hanging in the air and away from persons or objects it could harm. Despite this knowledge PG&E put almost no effort into ensuring the components that keep the extremely dangerous overhead transmission lines hanging safely in the air were safe. Based upon the assertions of the PG&E personnel assigned to inspect and patrol the Caribou-Palermo line, it was not possible to assess the condition of the C hooks and hanger holes from either the ground or a helicopter flying 30 to 40 miles per hour a couple hundred feet above the line. Although claims it was impossible to assess the condition of the C hooks and hanger holes from a helicopter were completely discredited by BCDA investigators, the results of the post Camp Fire “enhanced” inspections and the Exponent Report clearly establish this was not solely a Caribou-Palermo line or Table Mountain Headquarters problem. This was a systemic PG&E problem.

During the post Camp Fire inspections, worn C hooks and worn hanger holes were found throughout the PG&E Overhead Transmission System. Despite the knowledge C hooks and hanger holes wear over time and despite the knowledge of the danger inherent in the failure of a C hook or hanger hole, the evidence clearly established nobody in PG&E was inspecting C hooks and hanger holes.

Despite the efforts of PG&E personnel to distance the company from the “Run to Failure” model, the evidence clearly establishes quite the opposite. PG&E had knowledge of the potential consequences of failure of the nearly 100-year-old C hooks, yet PG&E continued its policy of “Run to Failure.”

Because nobody was looking at and assessing the C hooks and hanger holes, there were very few, if any, notifications/tags generated for worn C hooks or hanger holes. As a result, the need for replacement of C hooks and hanger holes never came to the attention of Transmission Asset Management. The lack of verified records for many of the older, acquired transmission lines made the problem worse. In large population areas PG&E was staffed by experts, trained and qualified engineers and specialists having decades of experience. In less populated areas, Transmission Line Management was almost completely dependent upon less qualified Troublemakers, Linemen and Towermen and other personnel. For approximately ten years the

M&C engineer assigned to the rural northern area was not an actual engineer and had no engineering education, training or background.

Very little effort was made to audit the lack of findings of line personnel. Equipment failure related outages were repaired as they occurred and no effort was made to investigate the root cause of the failure. Transmission Asset Management essentially employed a strategy of either intentional or incompetent ignorance.

In essence, in 1930 PG&E blindly bought a used car. PG&E drove that car until it fell apart. The average reasonable person understands the basic proposition that older equipment needs more attention. A reasonable person doesn't buy a used car blindly and without at least a test drive. A reasonable person doesn't drive that used car for 200,000 miles without, at the very least, changing the oil and rotating the tires. A reasonable person has the common sense to know that service and maintenance become more important as the car ages and the miles accumulate.

This is, in essence what PG&E did. PG&E bought a used transmission line in 1930. PG&E knew next to nothing about the transmission line and made no attempt to learn about the line. PG&E ran the line for 88 years with minimal maintenance and repair. But for the Camp Fire, PG&E would have continued using the line with minimal maintenance and repair. Catastrophic failure of the Caribou-Palermo line was not an "if" question; it was a "when" question.

Although Quanta Technologies is well known and well respected in electrical utilities circles, the conclusions and recommendations of the 2010 Quanta Reports were essentially common sense findings. The basic findings of Quanta were that PG&E's infrastructure was aging and continued use required increased inspections and maintenance. According to the Senior Director of Transmission Asset Management, the Quanta Reports were discredited because of issues with tower failure data. The PG&E criticisms of the Quanta Reports may have been well founded, but the areas criticized have very little relevance to the ultimate conclusion that the transmission assets were old and needed more attention and care. PG&E obviously didn't take issue with the Quanta conclusions about the age of the transmission infrastructure. Transmission Asset Management continued to cite the Quanta age data and conclusions in subsequent internal and regulatory documents for the next seven years.

The evidence established that despite common sense and the Quanta Report, PG&E went the opposite direction. PG&E internal emails and documents established that by 2007 PG&E was aware of the aging electric transmission infrastructure problem. Former employees of the predecessor departments to the current Transmission Asset Management established PG&E was aware of its aging electric transmission infrastructure problem by the early 1990s.

Despite its knowledge that many of its assets were built prior to World War 2 and despite its lack of knowledge of the components of acquired electric transmission lines, PG&E had consistently reduced the frequency and thoroughness of inspections and patrols on those lines. In other, more populated areas, PG&E routinely used the fact that transmission lines were built after World War 2 to justify repair and replacement.

The 2014 RIBA process demonstrated how PG&E manipulated data to achieve desired results. It is beyond reasonable comprehension that a project to replace temporary poles not expected to stand through the winter scored lower for safety than an unnecessary project proposed solely to allow PG&E to transfer money spent from the expense budget to the capital budget. The fact that PG&E minimized and, ultimately, ignored a serious safety issue is reckless and negligent. The fact that they did so in the middle of a historic drought in an area known for consistent, extreme winds, is criminally negligent.

Despite its knowledge that its transmission assets were nearing the end of useful life and deteriorating PG&E decreased the expertise of the persons doing the inspections. This pattern continued after and in spite of the Quanta Reports. This is the exact opposite of how a reasonable person would have been expected to respond. The evidence clearly demonstrated PG&E understood the relationships between age of components and wear, wear and equipment failure and equipment failure and fire, but unlike a reasonable person, devoted less time and qualified personnel to inspecting the oldest assets.

This trend continued even in the face of the devastating effects of climate change. According to data from the US Geological Survey three of the four worst droughts in the recorded history of California have occurred since 2001. PG&E risk analysis reports, both internal and regulatory have consistently identified wildfire as the number one enterprise risk since 2006. The evidence clearly established PG&E was aware of the drought and the danger of catastrophic fire by 2013. Internal PG&E documents established that in 2013 PG&E identified the Feather River Canyon as a high fire danger area. Despite its knowledge of the increasing risk, the evidence established PG&E not only did nothing to mitigate the fire risk in the Feather River Canyon, it ignored known fire dangers for years.

Prior to 2006 PG&E had identified parallel groove connectors as a fire danger. In PG&E's 2006 "Risk Analysis of Urban Wild land Fires", the replacement of the parallel groove connectors is listed as a proposed mitigation. Unfortunately the proposal was only applied to Urban-Wildland Interface areas, which PG&E limited to the Bay Area. In the Feather River Canyon hundreds of known fire threats were left in transmission towers until 2016. Although the parallel groove connectors were ultimately replaced before causing a known fire, the fact those connectors remained in use for ten years, through two historic droughts, shows the complete disregard and indifference to the potential consequences by PG&E.

PG&E electrical transmission policies and records prior to the Camp Fire mirrored PG&E gas transmission policies prior to the San Bruno catastrophe. The investigation of the San Bruno catastrophe established that prior to the explosion, PG&E gas transmission had made very little effort to investigate and catalogue the components of the acquired gas transmission assets. Instead PG&E relied on assumed values. The San Bruno investigation also established PG&E intentionally was using the least expensive method of inspection in the least expensive manner. The chosen inspection method also saved money because problems that are not found do not need to be repaired. The investigation also established records relating to inspections, both justifying methods of inspection and the inspection reports, were fraudulent.

Somehow, the lessons of San Bruno were not learned on the electric transmission side. The evidence established that despite the lessons of San Bruno on the electrical transmission side, since 2010 PG&E has continued to rely on assumed values, the least expensive method of inspection and done nothing to ensure the veracity of inspection reports. The tragedy of San Bruno somehow had no effect on the electric transmission division. The five felonies for which PG&E was convicted changed nothing on the electric transmission side.

The philosopher George Santayana is credited with saying “Those who cannot remember the past are condemned to repeat it.” By ignoring the lessons of San Bruno PG&E condemned itself to another catastrophe. Based upon its own history PG&E knew it was creating a high risk of causing a catastrophic fire but, unlike a reasonable person, chose to ignore that risk.

Because of PG&E’s reckless and negligent decisions to unreasonably ignore risk, 18,804 structures, including almost 14,000 residential structures were destroyed – and 84 Butte County citizens needlessly lost their lives.

XXIII. SENTENCING

The court’s sentencing options are limited. As a corporation PG&E cannot be incarcerated and PG&E has indicated that it will decline probation. The only punishment available to the court is to fine PG&E. The maximum fine for a violation of Penal Code section 192(b) is \$10,000. The maximum fine for a violation of Penal Code section 452 is \$50,000. Based upon the foregoing the People urge the court to impose the maximum possible fines.

A. RESTITUTION

The People request that the court reserve jurisdiction over restitution and set a hearing in six months to review restitution in light of PG&E’s bankruptcy proceedings. In the wake of the Camp Fire many civil suits were filed against PG&E by the victims of the Camp Fire. Subsequently PG&E filed for bankruptcy in the Federal Bankruptcy Court in San Francisco. All Camp Fire civil suits and claims have been transferred to the Federal Bankruptcy Court. As of December 31, 2019, it is estimated that over 90% of the eligible Camp Fire victims have filed claims in the Federal Bankruptcy Court. PG&E has entered into a settlement agreement with all claimants in the Federal Bankruptcy Court.

Based upon consultation with bankruptcy experts in the California Attorney General’s Office, the People believe any restitution order issued by this court would be discharged in the bankruptcy proceedings. PG&E filed for bankruptcy under Chapter 11. A Chapter 11 reorganization produces a plan detailing how much various debts will be reduced. (11 U.S.C. § 1123(a)(3).) The plan applies to all debts that “arose before the date” of the confirmation of the plan by the bankruptcy court. (11 U.S.C. § 1141(d)(1)(A).) A debt arises at the time of the “conduct giving rise to the debt.” (4 Collier Bankruptcy Practice Guide (2018) § 76.03A.)

The Supreme Court has ruled that criminal restitution qualifies as a debt for bankruptcy purposes. (See *Pennsylvania Dept. of Public Welfare v. Davenport* (1990) 495 U.S. 552, 564.) Thus, restitution may be reduced or discharged in a Chapter 11 plan unless an exception applies. An exception exists for criminal fines and restitution. (11 U.S.C. § 523(a)(7); *Kelly v. Robinson* (1986) 479 U.S. 36, 53.) But the exception applies only to “individual” debtors. (11

U.S.C. § 1141(d)(2).) And exceptions for individual debtors do not apply to corporate debtors. (See *Garrie v. James L. Gray, Inc.* (5th Cir. 1990) 912 F.2d 808; *In re Spring Valley Farms* (11th Cir. 1989) 863 F.2d 832, 834; *Yamaha Motor Corp. v. Shadco* (8th Cir. 1975) 762 F.2d 668, 670.) As one bankruptcy court put it, “It is almost undebateable and universally held that a corporate Chapter 11 debtor is not subject to the” exceptions that apply to individual Chapter 11 debtors. (*In re Push & Pull Enterprises, Inc.* (N.D.Ind. 1988) 84 B.R. 546, 548 (N.D.Ind. 1988).)

Of the exceptions that apply to corporations, none includes criminal restitution. The closest exception deals with debts owed on money or property obtained by fraud. (11 U.S.C. § 1141(d)(6).) In short, criminal restitution owed by a corporation for a crime committed before the bankruptcy petition is filed is a debt that may be reduced or discharged as part of a Chapter 11 reorganization. The one court to have considered this issue reached the same conclusion. (See *In re Wisconsin Barge Lines, Inc.* (E.D. Mo. 1988) 91 B.R. 65, 67-68.)

Thus, any restitution owed by PG&E to persons harmed by the Camp Fire will be subject to reduction or discharge in a Chapter 11 reorganization. Any restitution order by this court is limited in fact, if not in law, to the final order of the Federal Bankruptcy Court and this court should await the outcome of the pending Bankruptcy proceedings.

B. Factors In Aggravation

California Rule of Court 4.421 defines factors the court may consider in making a sentencing determination. Under Rule 4.421 the court may consider the following relevant factors:

(a) Factors relating to the crime

- (1)** The crime involved great violence, great bodily harm, threat of great bodily harm, or other acts disclosing a high degree of cruelty, viciousness, or callousness;

PG&E is pleading to 84 felony counts of Involuntary Manslaughter in violation of Penal Code section 192(b) and one count of Unlawfully Causing a Fire in violation of Penal Code section 452. PG&E is also admitting Special Allegations involving Great Bodily Injury to a firefighter and two civilian victims.

The facts establish a callous disregard for the safety and property of the citizens of Butte County.

- (3)** The victim was particularly vulnerable;

There are almost 50,000 victims of the Camp Fire. All of those people relied upon PG&E to provide safe electric power. Despite years of extreme drought, consistently high down canyon winds and the knowledge equipment failure on high voltage transmission lines can

cause fires, PG&E ignored warning signs and did the absolute minimum to mitigate the fire danger.

The most vulnerable population were the mobility challenged and the elderly. People like Rafaela Andrade, Andrew Downer, Rose Farrell, Helen Pace, Ethel Riggs and Kimber Wehr had no ability to escape the fire. Those and other lives depended upon PG&E doing its statutory and moral duty.

(4) The defendant induced others to participate in the commission of the crime or occupied a position of leadership or dominance of other participants in its commission;

PG&E, although an inchoate entity, nonetheless operates only through the actions of its employees. Through a corporate culture of elevating profits over safety by taking shortcuts in the safe delivery of an extremely dangerous product – high-voltage electricity – PG&E certainly lead otherwise good people down an ultimately destructive path.

(9) The crime involved an attempted or actual taking or damage of great monetary value;

By saving money on needed maintenance, repairs, replacements was able to generate profits in the billions of dollars.

(11) The defendant took advantage of a position of trust or confidence to commit the offense.

PG&E was entrusted by the People of the State of California to provide safe and reliable electricity. PG&E took advantage of that position of trust and was able to generate billions of dollars in profit.

(b) Factors relating to the defendant

(2) The defendant's prior convictions as an adult or sustained petitions in juvenile delinquency proceedings are numerous or of increasing seriousness;

In 2016 PG&E was convicted of multiple federal felonies as a result of the 2010 explosion of a PG&E gas transmission pipe in the City of San Bruno. The San Bruno explosion killed eight people, destroyed 35 residential structures and damaged many additional residential and commercial structures. The felonies for which PG&E was convicted related to inspection policies, procedures and record keeping. Eight years later, as a result of similar reckless and criminal inspection policies, procedures and record keeping PG&E stands convicted of 84 counts of manslaughter.

(4) The defendant was on probation, mandatory supervision, post release community supervision, or parole when the crime was committed;

PG&E was on federal probation on November 8, 2018. On January 26, 2017, PG&E was granted five years' probation in United States District Court, Northern District of California case number 0971 3:14CR00175-001 TEH.

(5) The defendant's prior performance on probation, mandatory supervision, post release community supervision, or parole was unsatisfactory.

Special condition of probation number 1 states “While on probation, PG&E shall not commit another Federal, State, or local crime.” While on probation, as a result of policies similar to those for which PG&E was convicted, PG&E has continued to cause disasters, including the 2015 Butte Fire, the 2017 Wine Counties Fire, the 2017 Honey Fire, the Camp Fire and, most recently, the Kincaide Fire in 2019.

C. Factors in Mitigation

a) Factors relating to the crime Factors relating to the crime include that:

(1) The defendant was a passive participant or played a minor role in the crime;

Not applicable

(2) The victim was an initiator of, willing participant in, or aggressor or provoker of the incident;

Not applicable

(3) The crime was committed because of an unusual circumstance, such as great provocation, that is unlikely to recur;

Not applicable

(4) The defendant participated in the crime under circumstances of coercion or duress, or the criminal conduct was partially excusable for some other reason not amounting to a defense;

Not applicable

(5) The defendant, with no apparent predisposition to do so, was induced by others to participate in the crime;

Not applicable

(6) The defendant exercised caution to avoid harm to persons or damage to property, or the amounts of money or property taken were deliberately small, or no harm was done or threatened against the victim;

Not applicable

(7) The defendant believed that he or she had a claim or right to the property taken, or for other reasons mistakenly believed that the conduct was legal;

Not applicable

(8) The defendant was motivated by a desire to provide necessities for his or her family or self; and

Not applicable

(9) The defendant suffered from repeated or continuous physical, sexual, or psychological abuse inflicted by the victim of the crime, and the victim of the crime, who inflicted the abuse, was the defendant's spouse, intimate cohabitant, or parent of the defendant's child; and the abuse does not amount to a defense.

Not applicable

(b) Factors relating to the defendant Factors relating to the defendant include that:

(1) The defendant has no prior record, or has an insignificant record of criminal conduct, considering the recency and frequency of prior crimes;

Not applicable

(2) The defendant was suffering from a mental or physical condition that significantly reduced culpability for the crime;

Not applicable

(3) The defendant voluntarily acknowledged wrongdoing before arrest or at an early stage of the criminal process;

PG&E plead guilty as charged to the Indictment at arraignment.

(4) The defendant is ineligible for probation and but for that ineligibility would have been granted probation;

Not applicable

(5) The defendant made restitution to the victim; and

PG&E has agreed to restitution to victims of the Camp Fire as part of a civil settlement in the Federal Bankruptcy Court.

(6) The defendant's prior performance on probation, mandatory supervision, postrelease community supervision, or parole was satisfactory.

Not applicable

(c) Any other factors statutorily declared to be circumstances in mitigation or which reasonably relate to the defendant or the circumstances under which the crime was committed.

Not Applicable

D. Conclusion

The factors in aggravation greatly outweigh the factors in mitigation. For this reason the court should impose the greatest sentence allowed under the law – the maximum fines of \$10,000 for each of the 84 counts of manslaughter and the maximum fine of \$50,000 for the count of Unlawfully Causing a fire.

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COMPANY

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

UNITED STATES OF AMERICA,

Plaintiff,

v.

PACIFIC GAS AND ELECTRIC COMPANY,

Defendant.

Case No. 14-CR-00175-WHA

**PG&E'S RESPONSE TO PEOPLE'S
STATEMENT OF FACTUAL BASIS
IN SUPPORT OF THE PLEAS AND
SENTENCING STATEMENT**

Judge: Hon. William Alsup

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INTRODUCTION

PG&E accepts responsibility for the 2018 Camp Fire that killed 85 people and destroyed homes, communities and wildlife. PG&E pleaded guilty to the charges brought by the Butte County District Attorney and agreed that the grand jury investigation established a factual basis for those charges. PG&E should have found and replaced the worn C-hook that broke and caused the catastrophic fire.

Following the Camp Fire, PG&E began accelerated and enhanced safety inspections in high fire-threat areas. As PG&E acknowledged a year ago, the number of safety issues found as a result of those inspections was unacceptable. In addition to overhauling its inspection process, the Company is hardening its energy system to make it more resilient and is incorporating advanced technology to predict and detect extreme weather conditions. The increased wildfire risk in California demands, and PG&E is working to deliver, industry-leading wildfire prevention programs.

The Court has instructed PG&E to respond to the Butte County District Attorney's detailed Statement of Factual Basis ("SOFB"), accepting what is true, and indicating disagreement with those statements it believes to be contrary to the evidence. None of the assertions below is in any way intended to diminish PG&E's acceptance of, and accountability for, the Camp Fire and the devastation it caused.

I. INITIAL TIMELINE

PG&E admits all of the statements in this Section of the Statement of Factual Basis, except lacks sufficient information to admit or deny that a second fire (the "Camp B Fire") ignited as a result of vegetation contact with PG&E's facilities.¹ PG&E lacks access to the relevant physical evidence, as well as the relevant reports from the California Department of Forestry and Fire Protection ("CAL FIRE") and its experts.

¹ Where PG&E states that it does not have sufficient information to admit or deny an allegation, it should have the effect of a denial of the allegation. *See* Fed. R. Civ. P. 8(b)(5) ("A party that lacks knowledge or information sufficient to form a belief about the truth of an allegation must so state, and the statement has the effect of a denial.").

II. ORIGIN AND CAUSE INVESTIGATIONS

PG&E admits all of the statements in this Section, except lacks sufficient information to admit or deny statements regarding the Camp B Fire other than to admit that PG&E's Big Bend 1101 12 kV Distribution Circuit experienced an outage at 6:45 a.m. on November 8, 2018. PG&E does not have access to the analyses, reports, data and physical evidence on which these conclusions regarding the Camp B Fire are based, including relevant reports from CAL FIRE and its experts and the Ponderosa pine tree examined by CAL FIRE's retained arborist.

III. INJURIES AND LOST LIVES

PG&E admits all of the statements in this Section.

IV. BACKGROUND OF THE FAILED COMPONENT

A. History of the Caribou-Palermo 115 kV Transmission Line

PG&E admits that, at the time of the Camp Fire, structures on the section of the Caribou-Palermo Line from the Caribou Powerhouse to the Big Bend Switching Station (the "Caribou-Big Bend section") had components of original vintage. PG&E records indicate that insulators were replaced on transmission towers on the Caribou-Palermo Line in the decade preceding the Camp Fire, including on the Caribou-Big Bend section. As to statements to the effect that PG&E did not "catalogue" components before the Camp Fire, PG&E clarifies that it identified splices on the Caribou-Palermo Line conductor and recorded changes in conductor size and type in various locations.

PG&E does not have sufficient information to admit or deny that "the transposition components on Tower [:]27/222, including the transposition arms, C hooks, insulator strings and jumper conductor, were original components in service since 1921", or that the "insulator string hanging from the C hook that broke on November 8, 2018 was an original 1921 insulator", as the available records and evidence are not conclusive as to their date of installation. (SOFB at 17.)

PG&E denies that it “had little or no information” regarding the “conductor and the hooks, original hanger holes and bolted-on hanger hole plates supporting that conductor”. (*Id.*) PG&E produced engineering drawings and manufacturer catalogs that include information on the characteristics of these components.

B. C Hook and Hanger Hole Wear

PG&E admits that transposition runner arms, hanger plates, insulators and C-hooks were removed from Towers :27/222, :20/160, :24/199, :32/260 and :35/281 on the Caribou-Palermo Line and collected as evidence by investigators with CAL FIRE and the Butte County District Attorney’s Office. PG&E admits that C-hooks and hanger plates removed from Towers :27/222, :20/160, :24/199 and :35/281 were worn. PG&E admits that it does not have records of work done on the jumper conductor on Tower :24/199 to “shorten[it] and splice[it] together using a parallel groove connector”, (SOFB at 19), and PG&E therefore lacks sufficient information to admit or deny that any such work was done.

PG&E cannot admit or deny the remainder of this Section of the Statement of Factual Basis. It consists of observations, conclusions, analyses, inferences, testing results and opinions attributed to an FBI metallurgist, investigators with CAL FIRE and the Butte County District Attorney’s Office, and a meteorologist and engineer retained by the Butte County District Attorney, none of which are matters within PG&E’s knowledge. PG&E does not have access to the physical evidence or the analyses, tests, models and data on which the conclusions in this Section are based, including the FBI’s metallurgical tests on components removed from Towers :27/222 and :24/199, Light Detection and Ranging scans of Towers :27/222 and :24/199 taken by CAL FIRE, the referenced “computer model of Tower [:]27/222” and “wind load model of the Feather River canyon”, (*id.* at 20), and components from Towers :27/222, :20/160, :24/199, :32/260 and :35/281 that were seized by CAL FIRE and the Butte County District Attorney’s Office.

PG&E denies that “[t]he hooks were intended to fit snugly into the holes”. (*Id.* at 18 n.25.) As the Statement of Factual Basis notes, there was “space between [t]he top of the C hook and the top of the hole”. (*Id.* at 18.)

V. INSPECTION AND PATROL POLICIES

PG&E unreservedly accepts responsibility for the Camp Fire, but denies certain allegations in the Statement of Factual Basis concerning its past inspection and patrol policies. As to certain other allegations, PG&E does not have sufficient information to admit or deny them. Those statements are identified and addressed below.

PG&E denies that it “did not, in fact, follow the procedures and requirements established in the [Electric Transmission Preventive Maintenance (‘ETPM’) Manual]” and that “sections of the ETPM relating to inspections and patrols of overhead electric transmission lines were simply a façade created to meet the requirements of the regulators and the CAISO”. (SOFB at 25.) PG&E personnel formulated the procedures and requirements in the ETPM Manual in good faith to maintain PG&E’s transmission system. PG&E instructed its employees to follow the ETPM Manual.

PG&E does not have sufficient information to admit or deny that a PG&E troubleman who worked in the Feather River Canyon between 1987 and 1995 “established the Caribou-Palermo line was considered a ‘Class B Circuit’” and, as a result, was “required to be patrolled three times each year”. (*Id.*) PG&E has not identified any documents from that period that support the troubleman’s assessment of the Caribou-Palermo Line as a Class B Circuit or otherwise permit a determination that the line was so classified.

Similarly, PG&E does not have sufficient information to admit or deny the accuracy of the following statement:

“Former PG&E Transmission Line Supervisors from 1987 noted the checklist inclusion of ‘worn hardware’ was a result of a 1987 PG&E Laboratory Test Report documenting a worn C hook and hanger hole from a Bay Area transmission tower. Photos of the worn C hooks and holes were distributed to troublemen in all of the PG&E regions for training purposes, and inspection of C hooks and hanger holes was made a specific priority during inspections/patrol.”

(*Id.* (footnotes omitted).) The referenced testimony cites events that occurred more than 30 years ago, including photographs that may have been distributed to troublemen and specific priorities during inspections and patrols. It does not appear that any documents corroborating this testimony were presented to the grand jury, and PG&E cannot independently verify the accuracy of the statement given the passage of time.

VI. REDUCTION OF UNIT COSTS FOR INSPECTIONS AND PATROLS

PG&E acknowledges that it established a committee in 2013 to explore opportunities to make transmission inspections more cost-efficient. As the Statement of Factual Basis itself makes clear, PG&E ultimately did not reduce the frequency of its transmission inspections and patrols as a result of that evaluation. (SOFB at 26.)

PG&E admits that it used “unit cost measurement” to calculate the costs of inspections and patrols. Unit cost measurement is a tool commonly used in many industries to measure production costs. PG&E determined unit costs for inspections and patrols based on the time spent by troublemen inspecting or patrolling each structure. Unit costs were determined for each maintenance headquarters based on the hours typically charged by that headquarters for inspections and patrols in past cycles, without regard to factors specific to each transmission line. PG&E denies that a reduction of unit costs for inspections and patrols was intended to be “accomplished by reducing the thoroughness of the inspections and patrols” or that the reduction of unit cost targets resulted in “less thorough and less complete inspections and patrols” of the Caribou-Palermo Line. (*Id.* at 27.)

Before the Camp Fire, PG&E’s Business Finance Department sent transmission line maintenance supervisors and superintendents color-coded monthly budget reports that tracked unit costs for inspections and patrols in their regions. The Business Finance Department did not, however, send such reports to the troublemen who conducted inspections. Unit costs were one of many factors that influenced incentive compensation for transmission line

supervisors and superintendents, together with achievement of the Company's safety, reliability, affordability and customer satisfaction goals.²

VII. TROUBLEMEN AND TRAINING

Before the Camp Fire, C-hook wear was not a commonly reported failure mode and failures of C-hooks in the field were relatively rare. Since the Camp Fire, PG&E has conducted a risk-based analysis of component types and introduced, along with drone technology and digital inspection forms, new training programs that guide inspectors and post-inspection review teams on how to identify and assess wear, including on C-hooks and hanger plates.

For certain findings in this Section of the Statement of Factual Basis, PG&E either denies the findings, states that it has insufficient information to admit or deny the findings, or offers additional context. These findings are identified and addressed below.

PG&E denies that it "eliminat[ed]" or "dropped" training requirements for troublemen. (SOFB at 28-29.) The Statement of Factual Basis notes that "the evidence does show that PG&E had created a Troubleman training program." (*Id.* at 28.) The Statement of Factual Basis cites the paraphrased testimony of a former employee in support of the statements that "a decision was made in 2005 to eliminate direct training of Troublemen" and that "Transmission Line Supervisors were provided training and expected to train the Troublemen under their supervision". (*Id.* at 29.) PG&E is not aware of any such decision to eliminate direct training. As noted below, troublemen have continued to receive formal training on how to conduct inspections and patrols.

PG&E denies statements to the effect that troublemen did not "receiv[e] any formal training", that there was a "lack of specific training and records", and that training concerning inspections was "limited to filling out reporting forms and notifications" and "informal mentoring". (*Id.* at 29-30.) Before the Camp Fire, PG&E administered training to troublemen through a combination of on-the-job learning and formal educational modules that

² PG&E no longer sends these color-coded monthly budget reports to supervisors and superintendents and no longer considers adherence to unit cost targets in determining incentive compensation for these personnel.

1 included exemplar photographs of conditions to be identified and reported. The notion that
2 troublemen in general, and the troublemen who inspected the Caribou-Palermo Line in
3 particular, received no “formal training on how to perform an inspection or patrol” is
4 contradicted by PG&E training records and testimony elicited during the grand jury proceedings.
5 For example, one troubleman testified that he received additional training on how to inspect
6 transmission lines when he was promoted to the position of transmission troubleman and that
7 ongoing training was regularly provided. Another troubleman who patrolled the
8 Caribou-Palermo Line testified that he had received training in the ETPM Manual, including
9 guidance on conditions to be identified and their prioritization. That same troubleman testified
10 that the training materials included photographs of specific conditions to look for during
11 transmission inspections and patrols. Moreover, PG&E records indicate that troublemen who
12 inspected or patrolled the Caribou-Palermo Line completed formal training on inspections.

13 PG&E disagrees with the unsupported statement that troublemen’s lack of
14 knowledge of size differences in working eyes “contributed greatly” to the failure to identify and
15 replace the C-hook on Tower :27/222. (*Id.* at 30.)

16 PG&E also denies the following statements:

17 “The evidence established that, despite the lofty goals of the
18 originators of the troubleman position, and the designation of QCR
19 by PG&E, by 2007 the inspections and patrols of the
20 Caribou-Palermo line were being conducted by inexperienced,
21 untrained and unqualified troublemen. Both of the Detailed
22 Ground Inspections (2009 and 2014) and seven of the ten Annual
23 Air Patrols on the Caribou Palermo were completed by
24 troubleman [sic] who had little or no prior transmission experience,
25 and no formal training on performing inspections and patrols. This
26 is contrary to the third Revision of the ETPM which requires that
27 the ‘QCRs must be thoroughly familiar with all of the facilities,
28 equipment, safety rules and procedures associated with the
facilities and equipment.’ The majority of the
troubleman [sic] sent to inspect and patrol the Caribou-Palermo
line had no idea what the C hooks and hanger holes were supposed
to look like. Because of their lack of knowledge, experience, and
training, the troubleman [sic] could not have been expected to
identify the wear. The overwhelming evidence clearly established
that troublemen and linemen inspecting and patrolling the

Caribou-Palermo line did not meet the standards established in the ETPM.”

(*Id.* at 30-31.) As noted above, PG&E records confirm that the troublemen who patrolled and inspected the Caribou-Palermo Line had received formal training in inspections. Further, the troublemen with experience working on distribution lines had skills and knowledge that were transferable to their work on transmission lines. A number of other troublemen who inspected and patrolled the Caribou-Palermo Line had relevant experience working on transmission lines. Several previously served on linemen crews that performed routine maintenance on transmission lines, including replacements of insulators and C-hooks.

VIII. FAILURES IN MAINTENANCE, REPAIR AND REPLACEMENT RECORD KEEPING ON THE CARIBOU-PALERMO LINE

A. Hanger Brackets

PG&E admits that hanger brackets were added to the transposition runner arms of Towers :27/222 and :24/199 and that it is reasonable to infer they were added to address wear observed on the original hanger plates. PG&E acknowledges that whoever did this work likely would have been aware of material loss on the original hanger plates. PG&E admits that it was unable to locate any records of when, why and by whom the hanger brackets were installed.

B. Parallel Groove Connectors

PG&E does not have sufficient information to admit or deny the following statements concerning parallel groove connectors and other equipment removed from Tower :24/199, a tower miles away from the Camp Fire ignition point:

“As previously mentioned, during the inspection of Tower [:]24/199 investigators noticed a parallel groove connector on the jumper conductor. It appeared to investigators that, at some previous time the jumper conductor had been shortened and spliced together using the parallel groove connector. Investigators also observed that the right phase insulator string appeared to be less aged than the left phase insulator and, as a result of the shorter jumper conductor, was not hanging plumb. From the ground, investigators also observed black marks on the tower leg nearest the right phase insulator string. On the ground below Tower [:]24/199, investigators found an old insulator string. The old insulator string was complete except for the C hook.

1 “Based upon the observations of investigators, the only reasonable
2 conclusion that could be drawn is that at some time in the past the
3 jumper conductor made contact with the tower leg, causing the
4 blackening observed on the tower leg. This damaged the jumper
5 conductor, necessitating the removal of a portion and replacement
6 of the insulator. It was also clear, based upon the change in the
7 wear pattern on the C hook observed by the FBI metallurgist, the
8 C hook was not replaced when the jumper conductor was
9 shortened and the insulator changed.”

10 (SOFB at 32.) These are opinions that a series of events occurred at Tower :24/199 “at some
11 time in the past”, as well as an FBI metallurgist’s observations of a “change in the wear pattern”
12 on a C-hook on that tower. Investigators for the Butte County District Attorney took custody of
13 the equipment on Tower :24/199 described above. PG&E does not have access to the equipment
14 or the analyses on which the investigators based their conclusions. Moreover, the observations
15 and inferences of the District Attorney’s investigators are not matters within PG&E’s knowledge
16 and cannot be admitted or denied.

17 The Statement of Factual Basis recounts that “as part of a scheduled Detailed
18 Ground Inspection in 2009, the troubleman assigned to complete the inspection of the
19 Caribou-Palermo line was instructed to document all towers with parallel groove connectors and
20 create work orders for replacement of the parallel groove connectors.” (*Id.*) PG&E clarifies that
21 the troubleman was tasked with documenting the existing three-bolt connectors on the
22 Caribou-Palermo Line in advance of their replacement with a different type of connector.
23 Three-bolt connectors and parallel groove connectors are different types of connectors. Neither
24 type of connector is the same type of hardware that failed and caused the Camp Fire.

25 According to the Statement of Factual Basis, “[t]he question of how a troubleman
26 flying in a helicopter could assess the wear inside the bolted connectors was never answered.”
27 (*Id.* at 33.) PG&E denies the implication that the purpose of the 2011 Annual Air Patrol was to
28 identify “wear inside the bolted connectors” as opposed to the conditions of the connectors and
other equipment more generally, including any outward signs of degradation. PG&E performed
five separate infrared inspections of the Caribou-Palermo Line after the connectors were

1 identified for replacement in 2009. As the Statement of Factual Basis notes, such inspections
2 can identify “excessive heat” caused by “[i]nterior wear” in a connector. (*Id.* at 33 n.69.)

3 PG&E denies statements to the effect that Priority Code F “did not come into
4 existence until January 2011”. (*Id.* at 34.) Although Priority Code F did not appear in the
5 ETPM Manual until the January 2011 revision of that document, the priority code itself was
6 active in PG&E’s systems prior to that time and available for use as of October 2009. PG&E
7 further denies the conclusion that “[t]his raised serious questions as to the accuracy of the few
8 maintenance/repair/replace records PG&E was able to locate.” (*Id.*) There is no identified
9 inaccuracy in the records cited.

10 As to the time taken to replace the connectors, PG&E denies the inference that
11 any “explanation for the extended amount of time” was required by the ETPM Manual. (*Id.*
12 at 34.) As stated in the “Reassessments” section of the 2011 ETPM Manual, certain types of
13 Priority Code F “conditions do not require reassessment in the field because they do not change
14 over time, do not pose an immediate impact to circuit reliability, or are used primarily to
15 document field conditions for programmatic use by the asset strategy group.”

16 PG&E admits that one of the connectors on Tower :24/199 “was not replaced
17 when all of the other parallel groove connectors in the tower were replaced in 2016”. (*Id.* at 32.)
18 Photographs of Tower :24/199 taken after the Camp Fire show that other three-bolt connectors
19 on the tower were replaced with parallel groove connectors, consistent with a June 18, 2016
20 Corrective Work Form documenting the replacement.

21 PG&E does not have sufficient information to admit or deny the accuracy of the
22 following observations made by the Butte County District Attorney’s investigators:

23 “While inspecting the Caribou-Palermo line in February and
24 March 2019 investigators noted another tower in which the
25 insulator strings had recently (post Camp Fire) been changed but
26 the C hooks were re-used.”
27
28

(*Id.* at 32 n.65.) Absent further investigation, and without additional information such as the tower number, PG&E cannot determine when the insulator string on this unspecified tower was replaced or whether the C-hook was reused as alleged.

C. The “Deteriorated Transmission Equipment Replacement Program”

PG&E denies that it misrepresented the purpose of any programs for transmission lines. Based on the cited testimony of one of the employees familiar with the program, there were unclaimed funds in the Deteriorated Transmission Equipment Replacement Program that were available for use to replace capital assets more generally. The employee further testified that it was not unusual for PG&E to make unused funds available for other capital projects within the Company’s five-year plan for transmission assets.

D. The Caribou-Palermo 7/55-8/64 Replacement Towers Project

Caribou-Palermo Towers :7/55 to :8/64 were at one time slated for relocation due to access issues. PG&E ultimately determined that relocation of these specific structures was unnecessary because they could be made accessible through roadwork. The towers within the scope of this project were miles away from the tower at which the Camp Fire originated.

PG&E denies any implication that the structures slated for relocation were at imminent risk of failure. As the Statement of Factual Basis notes, the authors of the quoted emails disavowed that interpretation of their communications. (SOFB at 36.) PG&E further denies the implication that it failed to address the condition of the towers that remained in place. After the decision was made not to relocate the towers, PG&E replaced insulators and conductor hardware on the tower spans.

PG&E denies that the Maintenance and Construction Engineer who worked on the relocation project had “no engineering . . . experience”. (*Id.* at 35 n.71.) While he did not have formal engineering qualifications, he had years of experience working on a variety of electric transmission projects.

1 **E. The Rock Fire**

2 PG&E denies that it had a “practice” of “not conduct[ing] climbing or aerial
3 inspections on other Caribou-Palermo line towers with similar connectors”. (SOFB at 37.) The
4 Caribou-Palermo Line was subject to yearly aerial patrols and regular infrared patrols by air that
5 are capable of detecting connector abnormalities. At least five infrared patrols were conducted
6 after the Rock Fire in September 2008, including one that occurred less than three weeks after
7 the Rock Fire. PG&E disagrees with the statement that no records of a root cause investigation
8 were found. PG&E produced to the grand jury an October 6, 2008 Electric Event Report
9 concerning the Rock Fire.

10 **F. Tower Collapse**

11 PG&E admits that five towers on the Caribou-Palermo Line collapsed during a
12 storm in December 2012, and that a sixth tower sustained damage that necessitated its
13 replacement. PG&E denies that “[t]he evidence established none of the other Caribou-Palermo
14 line tower foundations were inspected”. (SOFB at 37.) In the time between the collapse of the
15 towers in December 2012 and their permanent replacement in 2016, structures on the
16 Caribou-Palermo Line were subject to a detailed inspection, three routine aerial patrols, five
17 non-routine ground patrols, eight non-routine aerial patrols, and two emergency ground patrols.
18 The ETPM Manual instructs personnel performing such inspections and patrols to inspect tower
19 foundations for abnormalities, and notifications were generated after the 2012 tower collapse for
20 foundation conditions on the Caribou-Palermo Line. Based on this evidence, PG&E denies the
21 allegation that PG&E had a “practice of not following up on clearly established potential safety
22 and/or maintenance issues”. (*Id.* at 38.)

23 **G. Center Phase Conductor on Tower :24/200**

24 PG&E denies the statements in this Section concerning Tower :24/200, a tower
25 miles away from the Camp Fire origin point. As indicated on the work order produced to the
26 Butte County District Attorney, the damaged conductor on Tower :24/200 was identified on
27 January 10, 2017 and repaired on May 1, 2017, not in 2014, as stated in the Statement of Factual
28

1 Basis. (SOFB at 38.) Based on the referenced photograph, which shows pitting damage to the
 2 conductor, PG&E denies the implication that the “corona shield specifically” and “hot end
 3 attachment hardware generally” also warranted replacement. (*Id.*) PG&E further denies the
 4 implication in the Statement of Factual Basis that it should have conducted “a root cause analysis
 5 . . . to determine the cause of the damage to the conductor and corona shield”. (*Id.*) As indicated
 6 on the face of the records, the conductor was damaged during a storm.

7 **H. Broken J Hook**

8 PG&E admits that, in October 2016, a contractor aloft Tower 11/99 nearly lost his
 9 footing when a corroded J-hook broke. The J-hook that failed did not support an insulator or any
 10 energized equipment. Rather, it was used to connect flat bracing to the tower leg. PG&E denies
 11 that it had a “practice” of not inspecting equipment on similar towers after an equipment failure.
 12 (SOFB at 38.) PG&E records show that PG&E investigated the incident and sent an alert to
 13 employees advising them to exercise caution when working on or near towers fitted with J-hook
 14 hardware and to take “[s]pecial care to inspect the condition of the hardware prior to applying
 15 force”.

16 **IX. INSPECTION AND PATROL OF THE CARIBOU-PALERMO LINE**

17 PG&E denies that “[t]here is no record of any climbing inspections . . . conducted
 18 on the Caribou-Big Bend section of the [Caribou-Palermo 115 kV] transmission line.” (SOFB
 19 at 39.) PG&E records produced to the grand jury indicate that more than 30 of the 80
 20 Caribou-Palermo towers subject to climbing inspections before the Camp Fire were on the
 21 Caribou-Big Bend section of the line. Moreover, in March 2010, PG&E personnel conducted
 22 climbing inspections of the 10 towers identified for relocation, all of which are on the
 23 Caribou-Big Bend section.

24 The Statement of Factual Basis states that the 2014 detailed ground inspection
 25 was completed by “a troubleman and a lineman”. (*Id.*) PG&E clarifies that the inspection was
 26 performed by a transmission troubleman with years of experience and a temporary troubleman
 27 who qualified for the position by virtue of his experience as a journeyman transmission lineman.
 28

PG&E denies the following statement:

“The lineman assigned to assist with the 2014 Detailed Ground Inspection of the Caribou-Palermo line had previously completed some troubleman training but focused mainly on ‘Switching.’ The lineman did not recall receiving any training on performing inspections and patrols other than informal training by troublemen. No evidence was found to establish the four other linemen who performed inspections had previously completed any training on inspection and patrol.”

(*Id.* at 40.) As stated above, PG&E had programs in place for the formal training of transmission troublemen. PG&E training attendance records indicate that the temporary troubleman in question completed formal training on overhead transmission patrols and inspections in December 2013 (before the detailed ground inspection of the Caribou-Palermo Line in August 2014). The four linemen who assisted with the 2014 detailed inspection completed that same training between 2013 and 2016. PG&E understands that the participation of three of these four linemen in the 2014 ground inspection was limited to providing transportation and support at a helicopter landing zone.

PG&E denies the accuracy of the following statements:

“Written documents clearly establish the Table Mountain Transmission Line Supervisor knew the dates inspected on the Transmission [Line] Object List were wrong. Written documents also clearly established that he knew that for some of the towers the name of the inspector conducting the inspection was wrong. The evidence also establishes he knew the line clearance measurements did not occur on the dates listed on the Transmission [Line] Object List. Despite specific knowledge the report was not accurate; the transmission line supervisor approved and signed the report.”

(*Id.* at 41.) PG&E is not aware of any “written documents” that “clearly establish” the Transmission Line Supervisor had “specific knowledge” of inaccuracies in the Transmission Line Object List for the 2014 detailed inspection when he “approved and signed the report”. No such documents are cited, and the District Attorney did not elicit any testimony from the Transmission Line Supervisor in question that supports this statement.

1 PG&E admits that records for the 2012 annual aerial patrol did not identify a
2 second troubleman who assisted with that patrol when the originally assigned troubleman went
3 out on leave, but denies the suggestion that the records were “inaccurate” in other respects or had
4 other unspecified “issues”. (*Id.* at 41-42.)

5 PG&E does not have sufficient information to admit or deny that “[t]he evidence
6 established the thoroughness of the aerial patrols declined through the years”. (*Id.* at 42.) This
7 statement is based in part on “helicopter flight records for 2011 through 2018 for
8 Caribou-Palermo line aerial patrols [that] were obtained from a local helicopter company
9 contracted by PG&E to assist with aerial patrols.” (*Id.*) Those records have not been provided to
10 PG&E. This statement is also based in part on the memories of two former troublemen who
11 conducted aerial patrols 19 or more years ago. (*Id.*)

12 PG&E does not have sufficient information to admit or deny the following
13 statements:

14 “One former troubleman admitted he did not like flying the Feather
15 River Canyon transmission lines and, whenever possible, assigned
16 an available lineman to complete the routine air patrols.
17 According to the former troubleman, after the lineman completed
18 the air patrol the troubleman would use the lineman’s notes to
19 complete the patrol report and submit the report as if the former
20 troubleman had personally completed the patrol.”

21 (*Id.*) Based on review of the grand jury transcripts, PG&E cannot identify the paraphrased
22 testimony of the former troubleman in question. Absent further investigation and without details
23 sufficient to identify the records at issue, PG&E cannot admit or deny the accuracy of the former
24 troubleman’s account.

25 PG&E does not have sufficient information to admit or deny that a “recently
26 retired troubleman” who conducted aerial patrols “was only confirming the structures and
27 components were ‘standing upright’”. (*Id.* at 43.) Based on review of the grand jury transcripts,
28 PG&E cannot identify the paraphrased testimony.

1 PG&E denies that “even if the troublemen had looked at the C hooks and hanger
2 holes, without knowledge as to their respective sizes, the troublemen would not have been able
3 to assess wear”. (*Id.* at 44 n.89.) That statement lacks a basis in the evidence.

4 Contrary to the Statement of Factual Basis, the occurrence of a “trigger” as
5 defined in the ETPM Manual does not “require” a climbing inspection. Rather, “triggers are
6 specific conditions that require *follow-up inspections and/or maintenance* scheduled by the
7 supervisor, independent of the routine schedule”. (*Id.* at 44 (emphasis added).) Such “follow-up
8 inspections and/or maintenance” may include, but are not limited to, climbing inspections. Other
9 forms of “follow-up inspections and/or maintenance” include non-routine ground and aerial
10 patrols, infrared patrols, and repairs.

11 PG&E further denies that “storm related interruptions”, “equipment failures” and
12 other events on the Caribou-Palermo Line from 2008 to March 2018 were “sufficient to trigger
13 climbing inspections”. (*Id.* at 45.) As noted above, the occurrence of a “trigger” did not require
14 climbing inspections where other forms of “follow-up inspections and/or maintenance . . .
15 independent of the routine schedule” were sufficient to address the triggering event. Events
16 identified as triggers in the Statement of Factual Basis did prompt follow-up inspections or
17 maintenance outside the routine schedule, consistent with the ETPM Manual. After the collapse
18 of five towers on the Caribou-Palermo Line in December 2012, PG&E performed a non-routine
19 ground patrol of the affected area. Concerns relating to connector types led PG&E to replace
20 three-bolt connectors on the Caribou-Palermo Line with parallel groove connectors. PG&E
21 replaced the conductor on Tower :24/200 that was damaged during a storm in January 2017. In
22 response to the failure of a connector that was identified as a potential cause of the
23 September 2008 Rock Fire, PG&E investigated the cause of the failure and conducted an
24 infrared patrol of the Caribou-Palermo Line three weeks later.

25 PG&E denies the following statements:

26 “Although several PG&E transmission line employees referred to
27 the ETPM as ‘The Bible’ and asserted strict compliance with the
28 standards and policies of the ETPM, the totality of the evidence
shows that on the Caribou-Palermo line, the ETPM was not

1 followed. Because PG&E had inexperienced, untrained and
2 uninformed personnel conducting inspections and patrols under
3 unrealistic time constraints, the inspections and patrols did not spot
defects and wear.”

4 (*Id.* at 45-46.) PG&E agrees that past inspections failed to identify defects that were found in
5 enhanced inspections in 2019. However, the cited evidence does not show that failure resulted
6 from personnel not following the ETPM Manual. As noted above, the troublemen who inspected
7 and patrolled the Caribou-Palermo Line were not “inexperienced, untrained and uninformed”.

8 PG&E does not have sufficient information to admit or deny that “a PG&E Tower
9 Department supervisor” who was interviewed by the District Attorney “could not provide any
10 reason or rationale for the work order” calling for non-routine climbing inspections of the
11 Caribou-Palermo Line. (*Id.* at 46.) PG&E has not been provided with a transcript or record of
12 the interview and thus cannot admit or deny the reported account of the interview. PG&E denies
13 that “PG&E was unable to provide any further information” regarding the non-routine climbing
14 inspections and that it “has no explanation for how or why or by whom the decision to conduct
15 climbing inspections was made”. (*Id.*) As PG&E explained in a written response to the CPUC
16 that was produced to the District Attorney, the non-routine climbing inspections were “part of an
17 effort to assess the condition of its transmission lines and help inform its broader asset
18 management strategy”. In addition, PG&E produced emails identifying the individuals who
19 selected lines for climbing inspections as part of this effort.

20 PG&E denies the following statements:

21 “As to many decisions and policies, PG&E was unable to provide
22 any documentation as to who made the decision, how the decision
23 was made and upon what the decision was based. This inability to
24 determine who made decisions and upon what those decisions
25 were based, frustrated efforts to identify individuals potentially
personally liable for policies that lead [sic] to the conditions which
caused the Camp Fire.”

26 (*Id.* at 46-47.) PG&E cooperated fully with the grand jury investigation, including by making
27 witnesses available for voluntary interviews and providing extensive document discovery in
28

1 response to informal requests and grand jury subpoenas. Many of the produced emails and other
 2 documents described capital projects and maintenance work on the Caribou-Palermo Line,
 3 memorialized decisions regarding that work, and identified the relevant decision makers.

4 **X. COMPARISON OF CARIBOU-PALERMO WITH OTHER TRANSMISSION**
 5 **LINES**

6 The Exponent Report does not support the conclusion that “the Caribou-Palermo
 7 line was only marginally worse than other comparison transmission lines”. (SOFB at 47.) That
 8 conclusion does not appear in the Exponent Report. Exponent concluded that the
 9 “Caribou-Palermo line and other North Fork Feather River Canyon lines appear to have a unique
 10 set of factors that contributed to increased rates of high-priority cold-end hardware tags relative
 11 to other comparison lines”. (CPUC Incident Investigation Report, Nov. 8, 2019, Attachment N,
 12 Exponent Report on PG&E Caribou-Palermo Asset Condition Investigation, Nov. 1, 2019,
 13 at 76.) As enumerated in the report, that unique set of factors included “design (link connectors
 14 and a relatively large number of non-tensioned insulated conductors), long-duration exposure to
 15 higher winds, age, and historical inspection methodologies”. (*Id.*)

16 PG&E admits that its 2019 Wildfire Safety Inspection Program (“WSIP”)
 17 identified thousands of conditions in need of repair on PG&E’s system that had not been
 18 previously identified. (SOFB at 47.) As PG&E has acknowledged, the number of safety issues
 19 identified was unacceptable. However, PG&E denies as vague, overbroad and unsupported the
 20 statements that “PG&E’s problems were systemic as opposed to local”, (*id.*); that “the
 21 Caribou-Palermo line specifically and the Table Mountain District in general are not outliers”,
 22 (*id.* at 51); that “the lack of thorough inspections and patrols on the Caribou-Palermo line was a
 23 systemic problem not a local problem”, (*id.*); that “the local Table Mountain District troublemen
 24 and linemen were not doing less than the troublemen and linemen assigned to other districts
 25 involved in the study”, (*id.* at 49); and that “inspections and patrols on other lines are only
 26 marginally more thorough than those done on the Caribou-Palermo line”, (*id.* at 51).

PG&E further denies that past inspections were not conducted in accordance with the ETPM Manual. There are reasons other than past non-adherence to the ETPM Manual why conditions would be identified for the first time during the enhanced WSIP inspections. For example, the enhanced inspection methods may have provided a better vantage point for detecting the condition; the risk-based assessment of components and new inspection forms may have helped focus the inspectors' attention on the condition; or post-inspection review teams may have found conditions not identified in the field.

XI. BUDGETARY CONSIDERATIONS

A. Expense Budget

PG&E agrees that it "consistently increased its budget for maintenance, repair and replacement of transmission assets" from 2007 through 2018. (SOFB at 51.) PG&E disagrees with the generalized assertion in the Statement of Factual Basis that "PG&E was **not** using the money to replace the oldest and most deteriorated transmission assets". (*Id.* at 52 (emphasis in original).) PG&E denies the related suggestion in the Statement of Factual Basis that senior leaders in Transmission Asset Management gave incorrect testimony before the Federal Energy Regulatory Commission ("FERC") regarding PG&E's use of funds to replace aging and deteriorating assets. (*Id.*) PG&E's filings with FERC corroborate the quoted testimony and show that PG&E spent significant sums to replace aging and deteriorated transmission equipment. The Statement of Factual Basis alleges that PG&E did not fund replacement of the "most deteriorated" assets, but does not define what is meant by "most deteriorated" in this context. Moreover, the quoted testimony did not address the issue of prioritization among various types of deteriorated or aging assets.

PG&E notes that many of the allegations in this Section of the Statement of Factual Basis are based upon the misconception that while "the capital budget for the electric transmission division of PG&E was funded through customer rates which were determined by FERC 'rate cases'", "[t]he expense budget was funded by the company". (*Id.*) In fact, utility rates are set to permit recovery of both capital investments and expenses. PG&E is permitted to

1 seek, and has sought, rate recovery not only for its capital projects, but also for the costs of
 2 expense work on its transmission assets, including routine repairs and maintenance. PG&E
 3 typically seeks recovery of such costs under the broad FERC category of Operations &
 4 Maintenance (“O&M”).

5 For example, in its last three rate cases filed before the Camp Fire, Transmission
 6 Owner (“TO”) Tariff rate cases TO 18, TO 19 and TO 20, PG&E sought FERC authorization to
 7 recover the costs of routine transmission repairs and maintenance, as documented in written
 8 testimony submitted with each filing. (*See, e.g.*, TO 18, Ex. PGE-0006 (July 29, 2016) at 1
 9 (testimony “to demonstrate that PG&E’s expense forecasts for ET Operations and Maintenance
 10 (O&M) expense are reasonable and should be approved by the Federal Energy Regulatory
 11 Commission”); TO 19, Ex. PGE-0008 (July 26, 2017) at 2 (“testimony . . . to support PG&E’s
 12 Period II (2018) expense forecasts for Transmission Operations and Maintenance (O&M)
 13 expense”); TO 20, Ex. PGE-0006 (Oct. 1, 2018) at 2 (“testimony explain[ing] how PG&E’s
 14 proposed formula rate determines the transmission O&M expense component of the Prior Year
 15 Transmission Revenue Requirement (TRR) in this twentieth Transmission Owner (TO20) Tariff
 16 Application”).) PG&E has sought authorization to recover O&M expenses in FERC rate cases
 17 dating back to 1998.

18 Accordingly, PG&E denies any allegations in the Statement of Factual Basis that
 19 proceed from the mistaken premise that PG&E cannot seek or has not sought FERC
 20 authorization to recover costs incurred for routine transmission repairs or other work charged to
 21 expense accounts, including any allegation that PG&E improperly or inappropriately
 22 “bootstrapp[ed] expense budget projects on to capital budget projects”, (SOFB at 55); “achieved
 23 expense budget cost savings by reducing the thoroughness of inspections and patrols”, (*id.*);
 24 “look[ed] for ways [to] charge expense budget projects to the capital budget”, (*id.*); or “blur[red]
 25 the lines between repair and replace to allow some repairs to be charged to the capital budget”,
 26 (*id.*).

1 Based on a review of his grand jury transcript, PG&E denies the accuracy of the
 2 paraphrase of testimony by a former Transmission Line Supervisor that his district was
 3 “constantly under pressure to limit the hours necessary to complete thorough inspections and
 4 patrols”. (*Id.* at 53.)

5 Based on review of the grand jury transcript, PG&E denies the accuracy of the
 6 following paraphrase of the testimony of a former Maintenance & Construction engineer:

7 “When asked about these emails, the former M&C Engineer
 8 denied he was instructed to find ways to capitalize the money
 9 already spent and asserted that he was lying in the emails in order
 10 to get necessary work done quickly. As to the 2013 and 2014
 11 emails, he stated the recipient of the emails, the Transmission Line
 12 Supervisor at Table Mountain Headquarters, distrusted engineers,
 13 so he lied and put blame on Asset Management in order to avoid
 14 argument. When asked about the 2016 email, which was directed
 15 to an engineer in Asset Management, the former M&C Engineer
 16 replied that the Sr. Director of Transmission Asset Management
 17 was not involved in the project and he invoked the name of the
 18 Sr. Director of Transmission Asset Management to speed up the
 19 process. This person is the same former M&C Engineer who
 20 wrote the original AA and the approved AA and now claims that
 21 his description of the condition of the relevant Caribou-Palermo
 22 line structures and conductor was unsupported and exaggerated for
 23 the purpose of securing funding for the project.”

24 (*Id.* at 57.)

25 PG&E denies that “[t]he evidence established the maintenance/repair/replace
 26 budget was primarily based upon ‘reliability metrics’”. (*Id.* at 52.) While reliability was an
 27 important and appropriate factor in PG&E’s decision making, no evidence is cited in support of
 28 this statement. PG&E weighed a variety of factors in its decision-making process, including
 asset condition, public safety, inspection and maintenance history, operating environment and
 reliability impacts.

This Section of the Statement of Factual Basis quotes from emails sent by a
 Maintenance & Construction engineer between 2013 and 2016, an email sent by a civil engineer
 in 2018, and an email sent by “a manager in Business Finance” in August 2016, all relating to a
 project to relocate 10 towers on the Caribou-Palermo Line. (*Id.* at 53-55.) These towers were

not involved in the Camp Fire. Without additional investigation, PG&E does not have a sufficient basis to admit or deny the accuracy of the interpretations of, or inferences drawn from, those emails. In addition, this Section of the Statement of Factual Basis paraphrases and draws inferences from the Butte County District Attorney's interviews of "a former employee of the PG&E Business Finance Department" and "Transmission Line Supervisors and Superintendents". (*Id.* at 53.) Without additional investigation or records of the interviews, PG&E does not have sufficient information to admit or deny the accuracy of the paraphrased statements or the inferences drawn from the interviews.

B. Capital Budget and Comparative Risk Analysis (RIBA)

PG&E admits that in 2014 it began using Risk-Informed Budget Allocation ("RIBA") to prioritize funding for capital projects based on risk. Subject-matter experts worked with the RIBA team to assign projects RIBA scores based on the safety, reliability and environmental risks associated with continued operation of the relevant assets in their current state. These risk scores accounted for the likelihood and impact of the worst probable event that may occur if the project was not completed as proposed. As part of a standard calibration process, RIBA scorers presented their methodology and findings to the broader RIBA team to ensure standard application of the scoring matrix and consistent scoring across the distribution and transmission portfolios and within each of the project categories.

PG&E admits that RIBA scores depended, in part, on judgments as to the safety, reliability and environmental risks associated with the projects under consideration. PG&E denies the generalized allegations in the Statement of Factual Basis that it abused, "manipulated" or knowingly tolerated manipulation of the RIBA scoring process. PG&E also denies that RIBA scorers engaged in a "manipulation of facts" to justify RIBA scores, (SOFB at 61); that risk scores "are easily manipulated", (*id.*); that the "2014 RIBA process exposes the manipulation of comparative risk analysis by PG&E personnel", (*id.* at 62); that "[t]he inherent weakness of comparative risk analysis is its subjective nature", (*id.*); and that "[d]ata can be manipulated to achieve a desired result", (*id.*). Contrary to these allegations, PG&E conducted multiple

1 calibration sessions to minimize individual variations in the RIBA scoring process and drive
2 more consistent RIBA scores.

3 PG&E denies the following statement:

4 “RIBA scoring determined whether a project that is not mandated
5 by a regulator was funded for the coming year, RIBA scoring and
6 ranking was independent from and occurred after a project had
7 been included in a FERC rate case. Based upon the evidence,
8 projects were used in FERC rate cases to justify rate increases and
9 then, later, not funded because of a low RIBA score.”

10 (*Id.* at 58.) Projects generally received initial or calibrated RIBA scores prior to the TO rate
11 cases in which they were included. Projects originally included in a rate case may be
12 reprioritized or remain open in the year recovery is sought for a variety of reasons unrelated to
13 their RIBA scores, including permitting, engineering and environmental issues.

14 PG&E does not have sufficient information to admit or deny the allegation that it
15 was “highly motivated to complete the TL Relocate 10 Towers project in order to be able to
16 charge the budget overruns, money already spent, to the capital budget”. (*Id.* at 61.) The towers
17 considered for relocation were situated many miles away from the tower at which the Camp Fire
18 ignited. Accordingly, this project was not a focus of PG&E’s investigation. As explained in
19 prior filings, PG&E ultimately determined that the project was unnecessary because the towers
20 could reasonably be accessed through additional roadwork, and the condition of the towers could
21 be addressed through maintenance. (Dkt. 1078 at 28.)

22 This Section of the Statement of Factual Basis also includes the opinions that
23 “any[] or all of those poles” comprising the shoo-fly on the Caribou-Palermo Line “could
24 reasonably be expected to fall down within a year”, (SOFB at 61), and that the Butte County
25 District Attorney was unable to locate records to “support” the testimony of certain PG&E
26 personnel, (*id.* at 60). PG&E disagrees with these non-factual statements of opinion, which are
27 not supported by the record.
28

1 **C. Transmission Asset Management**

2 PG&E denies that “until 2017 PG&E had no consistent and comprehensive risk
3 database or policy for evaluating risk”. (SOFB at 63.) In fact, PG&E had systems, policies and
4 procedures in place before 2017 for evaluating risks associated with transmission assets. As
5 noted, in 2014, PG&E began using the RIBA scoring process to prioritize capital projects on
6 transmission lines based on evaluation of the safety, reliability and environmental risks. PG&E’s
7 policies for evaluating risk in its transmission system prior to 2017 are described in its asset
8 management plans and asset strategies for specific component types, which were updated
9 periodically. For example, PG&E’s September 2015 Transmission Line Conductor Asset
10 Strategy adopted a risk-informed strategy for conductor replacement based on factors such as
11 age, conductor size, splice count, and location in a coastal area or region prone to snow, ice or
12 high winds. Similarly, PG&E’s February 2015 Transmission Line Insulator Asset Lifecycle
13 Strategy adopted a risk-informed strategy for insulator replacement based on factors such as age,
14 line voltage, and location in a coastal region.

15 PG&E denies the inference, based on isolated uses of the phrases “run to failure”
16 and “run to maintenance”, that “PG&E was employing a run to failure strategy on the entirety of
17 the Caribou-Big Bend section of the Caribou-Palermo line”. (*Id.* at 67.) None of the cited
18 documents references or recommends application of a run-to-failure strategy to the
19 Caribou-Palermo Line. PG&E denies any implication in the Statement of Factual Basis that it
20 intentionally allowed C-hooks or hanger plates to remain in place on transmission towers until
21 those components broke or otherwise failed.

22 PG&E denies that “performance information played an oversized role and patrol
23 and inspection findings were insignificant”. (*Id.* at 65.) PG&E further denies that “decisions
24 were being made solely on asset performance information”. (*Id.*) Asset management personnel
25 weighed a variety of factors in their decision-making process, including asset condition, public
26 safety, inspection and maintenance history, operating environment and reliability impacts.

PG&E further denies the broad assertion that there were “years of reductions of frequency and thoroughness of patrols and inspections”. (*Id.*) Program changes from decades prior reduced the frequency of inspections, as noted above. More recently, however, “there were no changes to the frequency of inspections and patrols between . . . 2005 and 2018”, as the Statement of Factual Basis notes. (*Id.* at 25). Nor is there any evidence that PG&E sought to reduce the thoroughness of inspections that did occur. Statements to the effect that “problems were not being identified” are overbroad. (*Id.* at 65.) Problems were being identified before the Camp Fire, although inspections conducted after the Camp Fire showed that an unacceptable number had not been discovered in past inspections.

Based on review of the grand jury transcript, PG&E disagrees with the following paraphrase of the testimony of the Senior Director of Transmission Asset Management:

“Specifically he conceded that because nobody was looking for wear on cold end attachment hardware and therefor, no notifications/tags were being generated for replacement of cold end attachment hardware there were, as of November 8, 2018, no projects in the foreseeable future for the replacement of cold end attachment hardware.

(*Id.* at 66.)

“Although there were no specific plans to replace cold end attachment hardware the Senior Director of Transmission Asset Management asserted that plans were being made to perform preventative maintenance on the Caribou-Palermo line. According to the Senior Director of Transmission Asset Management, the NERC Project included non-NERC required preventative maintenance on the Caribou-Palermo line. When confronted with the Project Scope document for the NERC Project the Senior Director of Transmission Asset Management was unable to identify any non-required work. According to the Senior Director of Transmission Asset Management the non-required preventative maintenance was not included in the Project Scope document but that plans were being made to perform the preventative maintenance.”

(*Id.*)

For the reasons explained above under “Expense Budgets”, PG&E denies the allegation that PG&E inappropriately “bundled expense budget projects with capital budget projects in order to charge the expense budget costs to the capital budget project”. (*Id.* at 67.) Bundling projects for efficiency and to avoid repeated service disruptions is appropriate, and it is reasonable to structure capital projects in ways that avoid or reduce expenses.

PG&E cannot assess the various non-factual expressions of opinion and assessments of witness credibility in this Section of the Statement of Factual Basis, including the characterization of a chart as “appear[ing] to summarize PG&E TAM risk strategy”, (*id.* at 63); the characterization of something as “[t]he most relevant difference between” a 2017 chart and a 2018 chart, (*id.* at 64); the suggestion that Transmission Asset Management employees who “tended to distance themselves from the phrase [run to failure] and criticize the phrase as being undefined” were not credible, (*id.*); and the opinion that “it appears that the change from failure to maintenance was semantical only”, (*id.*). To the extent such statements include factual content, PG&E denies them as without sufficient support in the record.

XII. SAFETY, RELIABILITY AND ENVIRONMENT

PG&E denies that “[t]he evidence . . . contradicted [the] assertion[s]” of PG&E employees that safety was the most important consideration to PG&E employees. (SOFB at 67-68.) The evidence cited does not support that conclusion.

PG&E denies that 115 kV structures “are never subjected to climbing inspections”. (*Id.* at 68.) The Statement of Factual Basis acknowledges that 115 kV structures are subject to climbing inspections as triggered by specific events and that “climbing crews from the PG&E Tower Department climbed and inspected 80 towers on the Caribou-Palermo line” in the three months preceding the Camp Fire. (*Id.* at 46.)

PG&E further denies the statement that “[w]hen asked why special treatment was afforded to Bay Area steel towers but not steel towers along the Sonoma, Mendocino, Humboldt, Monterrey and San Luis Obispo coasts, TAM personnel were unable to explain the difference.” (*Id.* at 68.) A former transmission executive and the Senior Director of Transmission Asset

1 Management gave evidence that Bay Waters towers experienced levels of corrosion not seen in
2 other areas.

3 PG&E denies that the events described in “a 2018 PG&E Lab Report on the
4 hanger plates from the Parkway-Moraga 230 kV transmission line” exemplified “disparate
5 treatment based upon reliability metrics”. (*Id.*) There is no evidence that PG&E’s proactive
6 replacement of worn hanger plates on the Parkway-Moraga 230 kV Transmission Line was
7 “based upon reliability metrics”. The Transmission Line Maintenance and Construction
8 Supervisor who oversaw the work testified that the hanger plates were identified for replacement
9 during routine maintenance.

10 **XIII. RISK MANAGEMENT**

11 **A. Risk of Equipment Failure**

12 PG&E denies the following summary of the Quanta Report in this Section of the
13 Statement of Factual Basis:

14 “In summary, the Quanta reports stated wear is a product of age
15 and failure is a product of wear. All of the complex statistical
16 analysis in the Quanta reports boiled down to the fact a large
17 percentage of PG&E’s transmission assets were very old and
18 needed extra attention. Despite hiring Quanta to assess and
19 analyze its transmission assets and make recommendations, PG&E
20 ignored those recommendations. . . . None of the former
21 committee members could recall who made the decision to
22 disregard the recommendations of Quanta or why.”

23 (SOFB at 70.) PG&E denies this characterization of the Quanta Report as overly simplified and
24 refers to the Quanta Report itself for Quanta’s findings. PG&E did not make a “decision to
25 disregard the recommendations of Quanta” or “ignore[] those recommendations”. (*Id.*) The
26 Statement of Factual Basis acknowledges that “in 2010 a committee was assigned to review and
27 comment on the Quanta reports”, and that the Senior Director of Transmission Asset
28 Management at the time used and cited “information from the Quanta reports . . . in numerous
subsequent TAM documents”. (*Id.*) As recounted by the Senior Director of Transmission Asset
Management, PG&E ultimately determined that incorrect statistical analysis in the Quanta

1 Report diminished its usefulness, that further industry benchmarking should be done, and that
 2 more robust analysis was needed to build the case to PG&E’s regulators for replacement of aging
 3 infrastructure. (*See id.*)

4 PG&E admits that it “was aware of the risk of equipment failure causing
 5 conductor failure or ‘wire down events’” and “the causal relationship between fire and
 6 equipment failure on transmission towers”, but denies that “[t]he undated draft Transmission
 7 Overhead Conductors [report] established that at least one person within PG&E TAM was aware
 8 that inspections and patrols being done pursuant to the ETPM were doing very little to identify
 9 and prevent equipment failures”. (*Id.* at 72-73.) The Statement of Factual Basis quotes a
 10 passage in the referenced document that reads: “Inspections are not preventing equipment
 11 failure due to wear, corrosion and other factors on conductors and associated equipment
 12 (splices).” (*See id.* at 70.) However, the next sentence in the document clarified that
 13 “[i]nspections are identifying vegetation issues and equipment needing repair or vandalized”.

14 **B. Risk of Fire**

15 PG&E denies the assertion that “[d]espite all of this knowledge PG&E did
 16 absolutely nothing to identify and replace the worn hardware essential to keeping the conductor
 17 safely in the air”. (SOFB at 74.) As explained in PG&E’s prior filings, (*see* Dkt. 1128 at 7-8),
 18 reports of wear on C-hooks and hanger plates were infrequent before the Camp Fire, and PG&E
 19 followed up on instances of wear that were reported.

20 PG&E denies that the “extensive fire mitigation efforts” listed in the 2017 Risk
 21 Assessment and Mitigation Phase (“RAMP”) Report did not “directly address[] the risk of
 22 connecting hardware failure.” (*Id.* at 73.) As noted in the referenced RAMP Report, the
 23 “Overhead Conductor Replacement” mitigation identified in the RAMP as a fire mitigation
 24 measure for 2016 “reduces exposure primarily to the Equipment Failure – Conductor and
 25 Equipment Failure – Connector/Hardware risk drivers”.

1 **XIV. SAN BRUNO FIRE**

2 PG&E acknowledges that the method it frequently used to inspect gas
3 transmission lines at the time of the San Bruno explosion—External Corrosion Direct
4 Assessment, or ECDA—was the least expensive of the available inspection methods. PG&E
5 also recognizes that ECDA is not designed to detect manufacturing defects. However, PG&E
6 believes that the characterization of ECDA as “not designed to actually detect pipe integrity
7 flaws that would require immediate and costly repair or replacement” is not accurate. (SOFB
8 at 75.) ECDA is used to detect external corrosion, which is one component of pipe integrity, and
9 operators must take specific actions based on the results of ECDA assessments, ranging from
10 immediate excavation to monitoring.

11 PG&E denies that “the evidence established” that “PG&E never made any effort
12 to examine, evaluate and catalogue the line components” on the Caribou-Palermo Line. (*Id.*)
13 Prior to the Camp Fire, the Caribou-Palermo Line was subject to multiple inspections and patrols
14 during which components were examined and evaluated. In addition, PG&E cataloged splices
15 on the Caribou-Palermo Line conductor and recorded changes in conductor size and type in
16 various locations.

17 PG&E denies the following statements:

18 “Prior to the Camp Fire, for the Caribou-Palermo line PG&E
19 utilized the least expensive inspection method (air patrols) in a
20 manner guaranteed not to detect any problems that would require
21 immediate and costly repairs. Because troublemen were not
22 finding safety problems requiring repairs, PG&E was able to
devote capital budget funds to projects focused on improving
reliability metrics.”

23 (*Id.*) There is no evidence that PG&E selected an inspection method “guaranteed not to detect
24 any problems that would require immediate and costly repairs”. PG&E’s aerial patrols did detect
25 problems and lead to repairs, and PG&E did not rely exclusively on such patrols. PG&E also
26 performed detailed ground inspections at regular intervals and infrared patrols to identify
27 conditions not visible during ground or aerial inspections. PG&E disagrees with the statement
28

that “troublemen were not finding safety problems requiring repairs”. Although enhanced inspections after the Camp Fire identified problems that past inspections did not, it is not the case that inspections before the Camp Fire identified no problems.

XV. BUTTE FIRE

PG&E denies the following statements in this Section:

“Much like the Camp Fire investigation, the evidence uncovered during the Butte Fire investigation established as a result of reductions of the vegetation management budget, the written vegetation management policies were not being followed; vegetation management inspections and patrols were being conducted by unqualified, untrained, inexperienced personnel; and PG&E was instructing those tree inspectors to ignore all but the most dangerous conditions. Additionally the evidence established PG&E had no quality assurance programs to monitor and evaluate the vegetation management program. As with the transmission inspection and patrol policies in effect at the time of the Camp Fire, PG&E relied solely on the observations of unqualified, untrained and inexperienced inspectors to identify dangerous conditions.”

(SOFB at 76.) In the year preceding the Butte Fire, the area of origin was inspected five times, including as recently as two months before the fire. On each of those occasions, well-trained and experienced inspectors determined that the subject tree—located many feet away from power lines—was green and not a hazard. PG&E also disagrees that it “had no quality assurance programs to monitor and evaluate the vegetation management program”. (*Id.*) PG&E did have a Quality Assurance program for vegetation management at the time of the Butte Fire.

XVI. DROUGHT AND WIND

PG&E became aware before the Camp Fire that Northern California faced a heightened risk of catastrophic wildfires driven, in substantial part, by extreme weather, extended drought and climate change. PG&E also was generally aware before the Camp Fire of higher-than-average winds in the Feather River Canyon and the potential for high winds to damage electric assets, but disagrees with the characterization that it “knew that the Feather River Canyon was a drought ravaged tinderbox”. (SOFB at 81.)

1 This Section of the Statement of Factual Basis includes various weather-related
 2 opinions of Kris Kuyper, a meteorologist retained by the Butte County District Attorney.
 3 Without further investigation, PG&E is not in a position to agree or disagree with Mr. Kuyper's
 4 opinions.

5 The Statement of Factual Basis states that "in 2013 PG&E published the 'Wild
 6 Fire Administrative Zones in PG&E's Service Area' map" and that "[a]pproximately 85 towers
 7 on the Caribou-Palermo line between the Butte-Plumas County line and the Big Bend Substation
 8 were included on the list". (*Id.* at 77.) PG&E drew up the Wild Fire Administrative Zones to
 9 identify lines its service territory at higher risk of wildfire. The Wild Fire Administrative Zones
 10 predated the CPUC and CAL FIRE's joint development of the High Fire-Threat District
 11 ("HFTD") area map that today guides PG&E's wildfire mitigations. The Wild Fire
 12 Administrative Zones consisted of Urban Wild Fire ("UWF"), Other Wild Fire ("OWF") and
 13 "Santa Barbara Wild Fire" ("SBWF") Areas. The Statement of Factual Basis states that
 14 "Tower [:]27/222 for some unknown reason was not on the list". (*Id.* at 77-78.) PG&E clarifies
 15 that Tower :27/222 did not appear on the list of Wild Fire Administrative Zones because it was
 16 not within the UWF, OWF or SBWF Areas. By contrast, the Caribou-Palermo towers included
 17 on the list were situated in the OWF Area, as determined by a multi-factor relative risk score.

18 PG&E denies the statement that "the towers of the Caribou-Palermo line were
 19 routinely subjected to winds at or near their design criteria". (*Id.* at 81.) The Statement of
 20 Factual Basis states that the Caribou-Palermo "towers were designed to withstand winds of
 21 approximately 56 miles per hour" and that "[f]rom 2013 to 2019 the Jarbo Gap RAWS station
 22 recorded wind gusts over 50 miles per hour over 60 times". (*Id.*) But there is no basis to
 23 conclude that, for example, Tower :27/222 on the Caribou-Palermo Line experienced the same
 24 wind speeds, which vary based on topography, as those recorded at the Jarbo Gap weather
 25 station miles away.

26 PG&E denies that it "never inspected or tested any of the towers or components
 27 for wind damage" or "chose not to replace the aged and deteriorating conductor and components
 28

on the Caribou-Palermo line”. (*Id.* at 81-82.) PG&E’s numerous inspections and patrols of the Caribou-Palermo Line were intended to identify damage to towers and components, including damage caused by wind. Any suggestion that PG&E knew of and refrained from replacing equipment that needed to be replaced is not accurate.

XVII. PUBLIC SAFETY POWER SHUTOFF

PG&E admits that, at the time of the Camp Fire, transmission lines operating at 115 kV and above were not within the scope of PG&E’s Public Safety Power Shutoff (“PSPS”) program. Following the Camp Fire, PG&E has expanded its PSPS program so that overhead power lines at all voltage levels, including 115 kV lines, are now considered for proactive de-energization.

PG&E disagrees with the following non-factual statement of opinion in this Section of the Statement of Factual Basis: “After comparing the PSPS guide published on the website with the actual PSPS policy, it appears the authors of the public PSPS guide, in an effort to make the guide understandable to the average PG&E customer, simplified the policy to an extent that became misleading.” (SOFB at 82-83.) The referenced PSPS guide conveyed accurate, basic and non-technical information of relevance to PG&E customers. PG&E does not believe it was misleading.

PG&E denies the hypothetical and non-factual statements of opinion concerning what would or should have happened on November 8, 2018 if the Caribou-Palermo Line were within the scope of the PSPS program, including the statement that “conditions in the Feather River Canyon in the hours prior to the failure of the C hook on Tower [:]27/222 exceeded the wind conditions necessary for de-energization under the publicly posted PSPS guidelines”. (*Id.* at 82.) The Caribou-Palermo Line was not within the scope of PG&E’s PSPS program in 2018.

PG&E denies that “PG&E did not provide any written documents explaining or justifying [its] decision” to exclude 115 kV transmission lines from the PSPS program. (*Id.* at 83.) PG&E produced contemporaneous presentations, emails and other documents to the Butte

County District Attorney that explained PG&E's rationale at the time for excluding 115 kV transmission lines from the scope of its PSPS program.

XVIII. KNOWLEDGE OF RISK/CONSEQUENCE

PG&E admits being aware before the Camp Fire "that equipment failure (risk) causes fires". (SOFB at 83.) PG&E also was aware of "the connection between aging infrastructure and equipment failure", and for that reason sought authorization from its regulators to set rates at levels adequate to support replacement of aging infrastructure over time. (*Id.* at 85.) PG&E admits that, beginning in at least 2006, its Enterprise Risk Management Committee explored a number of initiatives to reduce the fire risk presented by aging assets, including replacement and inspection of high-risk equipment in high-risk areas. PG&E further admits that it identified the Urban Wildland Interface Area—where structures and human development meet with wildland and vegetative fuels—as a particular geographic area in which to concentrate its efforts.

PG&E has insufficient information to admit or deny the following statements concerning the Murphy Fire:

"The Murphy Fire was caused by the failure of a connector on a tower on the Caribou-Table Mountain 230kV transmission line. In both fires the failure of a connector allowed an energized jumper conductor to make contact with the steel tower structure and sent a shower of molten metal onto dry vegetation at the base of the tower.

"The Murphy Fire occurred on August 6, 2018. The origin of the fire was directly below a PG&E transmission tower – not the Caribou-Palermo line – just west of Belden in the Feather River Canyon. The fire was caused by equipment failure – specifically failure of a connector – which allowed an energized 230kV conductor to come into contact with steel tower structure."

(SOFB at 85 & n.144.) The cause of the Murphy Fire is listed as "Unknown" on CAL FIRE's website. Equipment collected from the tower of interest remains in the possession of the United

1 States Forest Service and PG&E is not in a position to admit or deny the conclusions in this
 2 Section regarding the alleged cause of the fire.³

3 PG&E denies the following statements:

4 “The evidence developed during this investigation clearly
 5 establishes that PG&E essentially ignored the recommendations of
 6 the Quanta Reports. PG&E did not adopt any new policies or
 7 procedures for inspection of the oldest transmission assets. There
 8 is no evidence of a programmed sampling of the oldest structures
 and foundations. Even the collapse of five Caribou-Palermo line
 structures in 2012 did not cause PG&E to take a closer look at one
 of their oldest transmission assets.”

9 (*Id.* at 87.) PG&E did not “ignore the recommendations of the Quanta Reports”. As noted in the
 10 Statement of Factual Basis, it convened an internal committee to consider the recommendations
 11 and ultimately determined that further and better analysis was necessary for effective asset
 12 management decisions, as explained above.

13 PG&E admits that it was “aware that wear increases with age, the possibility of
 14 equipment failure increases relative to the amount of wear, and ignition of a fire is a definite
 15 possible consequence of equipment failure.” (*Id.* at 89.) As stated in prior filings, PG&E was
 16 aware before the Camp Fire that cold-end hardware, like many transmission line components,
 17 wears at least to some degree with age. (Dkt. 1146 at 17.) PG&E was also aware that age is but
 18 one of a number of factors that influence wear and the overall condition of cold-end hardware
 19 and other tower components. (*Id.*) The occasions on which PG&E records noted wear on
 20 C-hooks or working eyes were limited in the context of the overall number of such components
 21 in PG&E’s system, and PG&E followed up on identified issues. (Dkt. 1128 at 10-11.)

22 **XIX. ELEMENTS OF THE OFFENSES**

23 PG&E does not dispute the recitation of elements of offenses in this Section.
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 25

26
 27 ³ PG&E clarifies that it did not include the Murphy Fire in its December 2018 filing with the
 28 Court because then, as now, the cause of the Murphy Fire and the role of PG&E’s equipment in
 that ignition had not been determined.

XX. DUTY

PG&E does not dispute the recitation of legal duty in this Section.

XXI. CONCLUSION

The Conclusion sets forth the District Attorney's arguments, opinions, inferences and legal conclusions based on various factual assertions that PG&E has either admitted or denied in the preceding Sections. PG&E has acknowledged that it should have identified and replaced the worn C-hook that failed and started the Camp Fire, and PG&E has pleaded guilty to felony charges and accepted criminal responsibility for the Camp Fire. But PG&E disagrees with the arguments, opinions, inferences and legal conclusions set forth in the Conclusion, which PG&E respectfully believes are not supported by the evidentiary record.

With respect to factual assertions in the Conclusion that are the same as or substantially the same as factual assertions in the preceding Sections, PG&E denies those factual assertions to the same extent they are denied in those preceding Sections.

PG&E admits the following new factual assertions in the Conclusion:

- "The exact age of the C hook is unknown because PG&E has no record of the hook", (SOFB at 92);
- "The records from the Great Western Power Company establish the entire line was built between 1918 and 1921", (*id.*);
- "There are no records of when each tower was built", (*id.*);
- "A conductor is the wire that carries electricity from Point A to Point B", (*id.* at 93);
- "PG&E has owned the Caribou-Palermo line since 1930", (*id.*);
- "According to the Quanta report the average age of non-copper conductor was 36 years and the 'greatest risk of failure in transmission conductors is thought to be with the oldest steel reinforced conductors'", (*id.*);
- "[F]ailure of an energized 115kV [line] is extremely dangerous", (*id.* at 94);
- "According to the email string a PG&E Engineer correctly surmised that this wear was 'probably caused by years of rubbing between the c-hook and the plate'", (*id.*);

- 1 • “In 2018 the discovery of keyhole wear on hanger plates on the par [sic]
2 transmission line caused enough concern that the Transmission Line Supervisor
3 sent the plates to the PG&E lab for analysis and evaluation”, (*id.*);
- 4 • “A PG&E lab scientist, with a PhD in Material Science and Engineering, used the
5 available data to opine the keyhole wear was occurring at a rate of .007 inches per
6 year”, (*id.*);
- 7 • “Knowledge of the danger inherent in a C hook or hanger hole breaking is firmly
8 established in PG&E documents. Since at least 2006, PG&E has recognized bad
9 things, especially fire, happen when equipment failures occur on transmission
10 lines. Everything in the overhead electric transmission system is designed to keep
11 the conductor hanging in the air and away from persons or objects it could harm”,
12 (*id.* at 95);
- 13 • “During the post Camp Fire inspections, worn C hooks and worn hanger holes
14 were found throughout the PG&E Overhead Transmission System”, (*id.*);
- 15 • “Transmission Asset Management continued to cite the Quanta age data and
16 conclusions in subsequent internal and regulatory documents for the next seven
17 years”, (*id.* at 97);
- 18 • “According to data from the US Geological Survey three of the four worst
19 droughts in the recorded history of California have occurred since 2001”, (*id.* at
20 98);
- 21 • “The evidence clearly established PG&E was aware of the drought and the danger
22 of catastrophic fire by 2013. Internal PG&E documents established that in 2013
23 PG&E identified the Feather River Canyon as a high fire danger area”, (*id.*); and
- 24 • “Prior to 2006 PG&E had identified parallel groove connectors as a fire danger. In
25 PG&E’s 2006 ‘Risk Analysis of Urban Wild land Fires’, the replacement of the
26 parallel groove connectors is listed as a proposed mitigation”, (*id.*).

27 PG&E denies all other statements in the Conclusion because, as written, they are
28 not supported by the developed record.

29 **XXII. SENTENCING**

30 PG&E admits that facts presented to the grand jury provide a sufficient factual
31 basis for PG&E’s guilty plea. For reasons already stated in this submission, PG&E denies the
32 allegations that it had a callous disregard for safety, ignored warning signs, elevated profits over
33 safety, did the absolute minimum to mitigate fire danger, and took advantage of a position of
34 trust. (SOFB at 101-102.) PG&E further denies the allegation that it caused the 2019 Kincadee
35

1 Fire. (*Id.* at 103.) The Kincade Fire remains under investigation and, to PG&E's knowledge,
2 causation has not been determined by the grand jury or any other agency.

1 Dated: July 1, 2020

Respectfully Submitted,

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