IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF SONOMA

HON. MARK A. URIOSTE COURTROOM THREE

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THE PEOPLE OF THE STATE OF CALIFORNIA,) No. SCR-745228-1
)
Plaintiff,)
)
vs.)
)
PACIFIC GAS AND ELECTRIC COMPANY, aka PG&E, PACIFIC GAS AND ELECTRIC,)
)
)
Defendant.)
)

REPORTER'S TRANSCRIPT OF PROCEEDINGS

HAD AT TIME OF PRELIMINARY HEARING

FEBRUARY 9, 2022

- - -

Appearances:

For the People: WILLIAM BROCKLEY
MATTHEW HENNING
MATT CHEEVER
Deputy District Attorneys

For the Defendant: BRAD BRIAN
JONATHAN KRAVIS
JANE GASKELL
MEGAN MCCREADIE
Attorneys at Law

Reported by:

BECKI PETERSON, CSR NO. 8973

I N D E X

WITNESSES

EXHIBITS

NO.	DESCRIPTION	MKD.	REC'D.
72	Document		276
91	Photograph		283
92 - 94	Photographs		285

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P R O C E E D I N G S

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THE COURT: Good morning. Let's go on the record in People versus Pacific Gas and Electric. The parties are all present and in their places. If it's all right with all of you I'll just make that general broad statement each morning rather than having each of you announce your presences each morning.

MR. HENNING: That works.

THE COURT: The witness is on the stand.

Good morning to you, sir.

Before we get started or resuming the testimony, I understand that several parties have arranged to have the transcript of the day's testimony broadcast to them each day, which is fine, but the Court is going to modify its order regarding the exclusion of the witnesses to include an order that no potential witness is to receive or review in any way the testimony or transcript of any other witness until excused as a witness from this hearing.

With that, are we prepared to continue with Mr. Uboldi's testimony?

MR. HENNING: We are, your Honor. Thank you.

THE COURT: Sir, I'll remind you that you are still under oath.

Mr. Henning.

MR. HENNING: Thank you.

DIRECT EXAMINATION (RESUMED)

BY MR. HENNING:

Q. When we were wrapping up at the end of the day yesterday, Mr. Uboldi, I was about to ask you about the general origin area investigation that you did with respect to the Sawmill Fire. And I'll just put back up People's 46.

It's hard to discern, but can you see there's red flags depicted on the ground in People's 46?

A. Yes, I do.

Q. Are these flags flags that you used in your general origin area investigation, similar to what you described with respect to Kincade?

A. Yes, they were.

Q. And could you just generally for us describe your -- the investigation that you conducted back in September of 2016 at the base of these three poles?

A. Once we arrived up there, we secured the area and ended up moving our trucks back up to a better location. I leapfrogged. I remained at scene, my boss went down. Chief Baldwin went down, moved his truck up. And we flip-flopped that way. To ensure the security for the scene.

Before we started throwing flags, putting flags out, we photographed the whole area, as it was undisturbed. And then we began to attempt to identify the fire pattern indicators around the area, which again brought us back to the three wooden power poles.

Placing flags out, we both worked together. One from the east, one from the west. We worked our way back to the power poles.

At that point, we ended up finding the wire on the ground, and then we further investigated -- did a visual inspection of the poles themselves.

Q. And I'm going to ask you another question in a moment.

Your Honor, the TV feels, at least from my point of view, less tilted than it was yesterday. Is this good enough for you, for the Court?

THE COURT: Thank you for asking. It's fine.

MR. HENNING: Thank you.

BY MR. HENNING:

Q. A question about these three poles. Are they connected in any way?

A. Yes, they were.

Q. Can you describe that?

A. Their connection was the three poles going vertically up, and then across the top was an I-beam, metal eye beam, connecting all three poles together. And they were connected to grounding wire, which grounded the whole structure itself back to earth.

Q. That connection that you just described, is that depicted in People's 46?

A. You can see components of it.

Q. Would it be fair to say that most of that connection is out of view on People's 46?

A. Yes.
Q. Okay. Please describe for us what you did next.
A. Upon our visual inspection of the poles, we located an area on pole 02 A, which is the farthest pole to the left, and went sequentially. 02 A, B, and C, sequentially up the hill.
On top of A we noticed there was a missing section of wire on the top portion of the pole. It was unlike the other poles, B and C. B and C had that wire in place. A had that wire missing, and we found a wire that was similar to that laying on the ground.
Q. Okay. The wire that you found that appeared similar, is this the wire that we talked about yesterday that's depicted, for example, here in People's 49?
A. Yes, it is.
Q. So just to be clear, this wire that you found on the ground, it appeared to be similar to which wires?
A. The grounding wires that ran from the insulator hardware up to the top, steel crossmember that connected all three poles.
Q. And were there particular poles where you saw this grounding wire?
A. Excuse me?
Q. Were they particular poles?
A. A, B and C.
Q. So on all three of them are you saying that they had this wire?
A. With the exception of A. A was missing its wire.

B and C had the wire attached on the pole.

Q. That's what I wanted to clarify.

And with respect to where you saw the wires on B and C, were they in the same approximate location on the respective poles?

A. Yes, they were.

Q. And where you saw the absence of wire on pole A, did that correspond to where you saw wires on B and C?

A. Yes.

Q. I'm going to show you --

Madam clerk, were People's 50 through 55 received in evidence yesterday?

THE CLERK: Yes.

MR. HENNING: Thank you.

BY MR. HENNING:

Q. I'm going to show you People's 50. Do you recognize what's depicted here?

A. Yes, I do.

Q. Can you describe what's depicted in People's 50?

A. This is the upper section of poles 02 A.

Q. And you were earlier describing an area on pole A where there was no wire, where you had seen corresponding wire on pole B and C. Is that area where there was no wire depicted here in People's 50?

A. Yes, it is.

Q. Can you use that pointer to try to draw the approximate area where there was no wire?

A. It went from here up to here (indicating).

Q. Okay. And I know this is not the best photo to use, but is there any wire that's visible in that approximate location on pole A?

A. Yes, there is.

Q. Can you try to use the pointer to point out where there is wire that you see?

A. We located two cut ends of wire. The first one, the bottom one was right here, and the top one was up in this area.

Q. Okay. And I don't think -- do you have a pen up there?

A. Yes, I do.

Q. Take your time, because I know this is a difficult photo. But if you can, can you use a red sharpie to circle those two areas that you just described on People's 50?

A. (Indicating)

MR. HENNING: Your Honor, does the Court want to see this up close?

THE COURT: Sure. Thank you.

Do you want to show that to counsel?

MR. HENNING: I will. Thank you.

BY MR. HENNING:

Q. The wires that you saw on pole A that you circled on People's 50, did they appear to be similar in terms of what -- the wire that's at the bottom that you circled versus the wire that's at the top?

A. Yes.

Q. And I go back to People's 49. This wire that you found on the ground, could you describe again for us approximately where you found this wire in relation to pole A?

A. Just at the base of it, within -- I believe it was I would say about 12 feet. 12, 15 feet away from the pole, within the general vicinity of pole A on the ground.

Q. Okay. And I thought yesterday at some point you mentioned 20 feet. Is there -- is that also within the approximate range of where you found this pole?

A. Yes. It was right around that general vicinity around the base of the pole.

Q. Okay. And you told us that the two wires that you circled on People's 50, one near the bottom and the one near the top, appeared to be similar to each other. Did these two wires appear to be similar in any way to the wire that you had found that's depicted in People's 49?

A. Yes.

Q. Yes, they did?

A. Yes.

Q. What about the amount of space there? The distance between where you circled at the bottom and circled at the top, did that appear in any way to correspond to the length of wire that you found that's depicted in People's 49?

A. Yes, it did.

Q. So having made this observation, or collected this wire and made this observation with respect to pole A, what did you do next?

A. We collected the wire. Left it in its original form so not to bend it. We secured that in my vehicle and then photographed it.

And when PG&E got there. They were there to check on -- they were attempting to reenergize the lines and do the repairs. We were unable to climb that pole and gain access to the top of the pole to do a visual inspection. We didn't have the equipment.

So when PG&E field personnel went up there to make the repair, I had them photograph it in place. And then when they went to go make the repair, they cut those two ends that we have that I circled right there. I had them wrap a piece of tape on it and put on the bottom one B, on the top one T, on a piece of tape so we could identify the top and bottom.

Additionally I had them put the tape near the original broken end that he made a cut on both sections, and he dropped them down separately to me in a bucket. We took these out and sealed those up, so we had those two ends also.

And then he proceeded to -- he took several other more pictures, and then he replaced a wire that went from those two locations. He put a new section of wire in.

Q. Okay. So let's talk about -- you said PG&E, a

PG&E crew arrived at one point?

A. Yes.

Q. Is that the first day you got out there or a later day?

A. I believe it was a later day.

Q. Okay. And when you say a later day --

A. It was the next day.

Q. Okay. So you first went out to the fire September 25, 2016. The following day, September 26, a PG&E crew is coming out?

A. Yes.

Q. And how did you know they were PG&E?

A. They identified themselves as PG&E. They were driving PG&E trucks, they had PG&E clothing on, ID. Yeah, they identified themselves as PG&E.

Q. Was there anything -- do you recall, was there anything about the poles themselves that had any markings to indicate that they were PG&E poles?

A. When we contacted PG&E, they acknowledged that these were their poles, versus CalPine equipment that was also near it.

Q. Okay. And so just to be clear, could you just describe for the Court what CalPine is again?

A. CalPine is the electric company for the area up there, that manages geothermal plants in that area also.

Q. Do they own multiple power plants up at the Geysers?

A. Yes, they do.

Q. And you had mentioned yesterday for reference this fire was in the vicinity of unit 5 and 6. Is that a CalPine power plant?

A. I believe so.

Q. Okay. And so you described for us the PG&E crew. They get there, and I believe you said they were there to reenergize the line?

A. Yes.

Q. Were you there the entire time that the PG&E crew was there?

A. Yes.

Q. Were you the only one taking photos that day?

A. I was taking photos, and an individual by the name of I believe Keith Parker, who was with PG&E, he was also taking photos. And I believe Mr. Fechter, who was a lineman with PG&E, I gave him my camera and had him take the camera up the pole, because I was not able to go up to the top of the pole. He took it to the top and took pictures for me.

Q. Is Fechter F-E-C-H-T-E-R?

A. Yes, it is.

Q. So you gave Mr. Fechter your camera and you watched him climb this pole?

A. Yes, I did.

Q. Did you watch him take photos?

A. Yes, I did.

Q. Did you have an opportunity to review the photographs taken by Mr. Fechter?

A. Yes, I did.
Q. While reviewing those photographs, did you observe anything that you felt was significant to your investigation regarding the Sawmill Fire?
A. Yes, I did.
Q. What was that?
A. When he -- may I show with the pointer?
Q. Sure. Yes, please. On People's 50.
A. While he was up there he took a photo while on this side of the pole, facing this way, and took a picture of the clamp that's on the insulator on this conductor right here.
Q. Describe what was it about that photo that was significant to your investigation?
A. What was significant about that photo is -- what we see is an oxidized piece of conductor with new arc marks. Freshly made arc marks along that that did not have any oxidization, any weathering. They looked very recent.
Q. All right. I'm going to show you a series of photos. I'm going to start with -- some of these have two photos on a page, so please take your time.
Starting with People's 51 -- first looking at People's 50, can you describe how People's 51 corresponds to People's 50?
Let me try to move it up. I'm out of real estate. Are you able to read that?
A. Yes. So describe the difference or the

similarities between 50 and 51, is what you're --
Q. Yeah. The photo we just looked at, People's 50, are we looking at the same thing in People's 51?
A. Yes, we are.
Q. And I see on the bottom photo there's some print superimposed?
A. Yes.
Q. You can't read that, so I'm going to approach.
Do you know how this print got on People's 51?
A. Yes.
Q. How?
A. I placed it there.
Q. Okay. And it looks like there's an orange line?
A. Yes, sir.
Q. Did you draw that line on there?
A. Yes, I did.
Q. Why? What does that signify?
A. I placed that yellow line on there where we believe the missing portion of the wire we located on the ground would have gone, due to its similar length, and the span being a similar length also.
Q. Okay. And now I'm going to show you People's 52.
And your Honor, does the Court want to see 51?
THE COURT: No.
BY MR. HENNING:
Q. People's 52. Can you describe what we're looking at depicted in People's 52?
A. On the top photo, it's the same line going

vertically along the pole, and then there's another line that goes horizontally away from the pole back out to the insulator. And we were able to establish that those two lengths were approximately the same length, if not -- they're within the length of the missing wire that we found.

Q. Okay. And when you say out to the insulator, which insulator?

A. The insulator in this photo, the one on the right-hand side of the pole A.

Q. So you're pointing to the right-hand side of People's 50?

A. Yes, right there.

Q. Is that the insulator where you reviewed some photographs taken by Mr. Fechter?

A. Yes.

Q. And going backwards, showing you first People's 54, can you describe what we're looking at in People's 54?

A. In People's 54, we have two photos of the clamp where the insulator meets the conductor. Just to the left of the insulator we can see arc markings that appear lighter in color on the gray conductor wire.

Q. And I'll talk about 53 in a couple moments.

Could you use the pointer to show us on -- and you can choose which photo on People's 54 -- that depicts these arc marks that you've described?

A. Right here (indicating).

Q. And also, I don't know if we've fully established it yesterday, but what do you mean by arc mark?

A. Disturbances in the surface of the conductor, be it -- it appeared to be almost as like a file was drug across it, exposing bare metal.

Q. And what is arcing?

A. Arcing is when the -- two conductors and the electricity passes between the two, as they pass over the surface they -- kind of like arc welding. It removes the surface. Heats up the metal and removes the metal off the surface.

Q. Based upon your experience investigating electric-caused fire, do you know whether arcing could potentially produce sparks?

A. Yes.

Q. Yes, it does?

A. Yes it does.

Q. And what you just pointed out on People's 54, is that insulator that's depicted, is that the same insulator on the right, People's 50, that you pointed out?

A. Yes, it is.

Q. And these are photos taken by the PG&E employee, Mr. Fechter?

A. Yes, it is.

Q. Thank you.

And you described for us that you observed PG&E -- this PG&E group of employees replace wire on pole A.

Could you describe for us, what did you see?

A. When they arrived, I instructed them that we were going to allow them into the area and -- but there was going to be some rules about how we proceed. They weren't to touch evidence, they weren't to take photos. A bit of an admonishment before they got there. But we were going to allow them to conduct their work. And we left them to their own devices. They made their repairs without any direction from us.

Q. And I'm just asking about, you said you saw them replace wire. What did you see in that regard?

A. They replaced the wire that we believe was missing on pole A. They climbed the pole and replaced the copper wire.

Q. Was it in that same area that we talked about earlier?

A. Yes, it was.

Q. Where you had drawn an orange line on some of the photos?

A. Yes, it was.

Q. Although you called it yellow.

Was there anything -- did you notice anything, did anything catch your attention about how they secured that wire when they replaced it on pole A?

A. Yes. After making their connections to the original wires that they cut and dropped down to me, they reclamped it, put the wire back up on the pole and then secured it back into the pole with horseshoe nails.

Q. I'm going to show you People's 53. And let's just start quickly at the top. What is the top photo depicting?

A. The top photo is depicting -- I believe it's pole B and C.

Q. Okay. From what vantage point do you believe this photo was taken?

A. From pole A.

Q. And then talking about the bottom photo, you had talked about the use of, I think you said horseshoe nails. Are those depicted in the bottom photo on People's 53?

A. Yes, they are.

Q. Could you use the pointer to identify them?

A. (Indicating) one right there and one right there.

Q. Okay. And did you -- so they're there, they're replacing wire. They're using these nails.

There's only two depicted here. Do you recall whether they used only two or more than two?

A. They used several more. Approximately probably five or six going up the pole.

Q. And did you see, were there any other nails, horseshoe nails that appeared to already be in place on pole A?

A. In the missing span, no. On the lower portions, yes.

Q. So when you say the lower portion, going back to People's 50, it's not the best lighting, but can you use

the pointer to show us where you saw a horseshoe nail?
A. Right on the little section of wire that came off this hardware and came up. There was a horseshoe nail on that piece.
Q. Okay. And in terms of ascending upward from that point, any other horseshoe nails?
A. No, there were not.
Q. Did you have an opportunity to look at poles B and C to see whether there were any horseshoe nails?
A. Yes.
Q. Were there?
A. Yes.
Q. If you can, can you approximate how many horseshoe nails were holding the wires in place on pole B and C?
A. Approximately 12 to 15 going up the pole.
Q. On each or total?
A. From -- if we were looking at pole B and C from here up, approximately 12.
Q. So that's 12 on each, approximately?
A. I would say so, yeah. Probably six up one, six up another.
Q. Okay. Did you find -- did you look for any horseshoe nails on the ground?
A. Yes, we did.
Q. Were you able to find any?
A. Yes.
Q. Okay. How many did you find?

A. I believe I remember seeing two or three on the ground that were oxidized.
Q. What do you mean by that, "they were oxidized"?
A. Rusty.
Q. And to assist you in this investigation, did you at any point use lidar technology?
A. Yes, I did.
Q. Can you describe how you used lidar technology?
A. So we used our department's survey crew. They came out and they had the lidar. And they also did the surveying for us. They marked out all of our fire spread indicator flags with surveying and they incorporated that into the lidar technology. And they did a lidar model of the three poles and the adjacent area around it.
Q. Were you a part of that process?
A. Yes, I was.
Q. Describe what role you played.
A. Well, I don't run the equipment. I usually give them direction on the parameters I want. I'll usually tell them I want from point A to point B, and this way point A to point B, and I establish the grid they're going to work in and tell them what I want captured, and basically their goal for the day.
Q. Using what's captured by lidar were you able to generate any images?
A. Yes, I was.
Q. Did you participate in the generation of lidar

images?

A. Yes, I did.

Q. I'm going to show you People's 55. Do you recognize People's 55?

A. Yes, I do.

Q. What is this?

A. This is a lidar product that was produced by Cal Fire depicting a sphere around the pole.

Q. Okay. Can you describe for us, orient us, what are we looking at in this exhibit?

A. In this photo we're looking down on top of the pole with -- may I use the stick?

Q. Please. Yes.

A. So what we have here, these are the metal crossmembers --

Q. Can you stand on the other side of the TV?

A. So we have the metal crossmembers, then we have pole A right here. And then we have the insulator that runs down off of the crossmember, and then we have the jumper.

The lower broken wire, that's where we placed this crosshair on. And then we took the length of the wire. So from the crosshair out to the edge of the sphere is the length of the wire.

And where -- what we did is we measured that distance to show that if that wire had broken and fallen over, where that edge is right here would be the edge of that sphere. So anything -- that wire could

theoretically wrap 360 degrees around that pole, and anything within that sphere would be the area of influence where it could touch something. And basically it showed anything that entered that sphere would be touched by that wire.

Q. And so the insulator that's depicted inside the sphere of this exhibit, is that the same insulator that Mr. Fechter took pictures of where you observed arc marks, arcing?

A. Yes, it was.

Q. So having gathered all the evidence related to Sawmill, were you able to form a conclusion as to how that fire started?

A. Yes, I was.

Q. What was that?

A. That at an unknown time the wire that was missing was originally -- that wire was originally attached to pole A. At an unknown time the staples came off and that wire was able to start getting blown around by the wind.

While it was getting blown around by the wind, it broke from the top and after it broke from the top it laid over. As it laid over, it kept getting blown in the wind, blown in the wind, back and forth.

After a significant time as it bent over it bent over towards the insulator. And when we had the wind event during the incident, it finally pushed it over enough to where it contacted the conductor. And when it

contacted the conductor it energized the ground wire. And the electricity ran down the ground wire and then back into the anchor wires that come off the pole.

It energized one of the anchor wires and went down, and we see arcing at the bottom of the pole. That's one of the fires. And then when it actually touched the conductor, that produced sparks. Those sparks were emitted, blew out onto the ground around the pole, creating multiple spot fires.

Q. I want to make sure I understand you.

You saw -- one of the origins, the specific areas you were able to identify was the bottom of an anchor point?

A. Yes, it was.

Q. And describe for us how did that anchor point connect to where that missing wire would have been?

A. The crossmembers and then the hardware on the non-energized side of the insulators are all linked together. They're grounded.

Q. Let me show you --let's back up. Does People's 50 help you describe how that would have happened?

A. Yes. May I?

Q. Please.

A. So on poles B and C we have the metal crossbeam. There's an anchor wire -- or correction -- a ground wire that runs off the bolt and it's stapled to the pole. Runs down, and it's connected into this hardware that secures the insulator string. And then it comes off of

that again and connects into this anchor wire. These are I-bolts that run continuously through the pole, so they're grounded on both sides. There's only one wire, but it's captured on both sides.

So when this wire, this wire that was here, it leaned over, contacted the conductor here, it reenergized, sent electricity back through, hit the ground wire and traveled through the ground wire, and then it reenergized this line going back down to the ground. This line is 45 coming off the pole going to earth, and a steel anchor in that.

We were able to find arcing on that steel anchor from where it exited the anchor and went to ground.

Q. It looks like there's some discoloration on the pole in the area where that wire would have been. Did you -- what if any significance did you assign to that to your investigation?

A. It left shadowing with respect to whenever we leave exposed copper to the elements, copper oxidized at a fairly rapid rate. When it does that it leaches into the object.

So what we're seeing here is the leaching from the copper onto the pole as it ran down. As it rains it oxidizes, and it will stain the pole after a while.

Q. You talked about this PG&E crew that was out there. Approximately how many PG&E personnel were there that day?

A. I believe about four.

Q. What if any information did you share with them regarding your investigation?

A. Not much. We allowed them to go in there. There was some concern about them reenergizing the pole. We were still working under it, so we discussed some safety issues with that. Their main concern was to make the repairs and get it reenergized.

Q. What about the findings and conclusions of your investigation? What if anything did you share with those PG&E personnel?

A. At that point I believe we did discuss that there is -- it was pretty open between the two groups, and they talked to us about the missing wire. That that wire was from the pole. And this was a discussion about the repairs that they made. It was pretty obvious when we were sitting there talking about it. They went up and made the repairs and came back down.

Q. I just want to understand, because you just said not much. Did you explain to them your understanding of what caused this fire?

MR. KRAVIS: Objection. Leading.

THE COURT: Overruled.

THE WITNESS: Yes. There was discussion about how it happened and the possibilities of it could have fallen over. Because there was issues of trying to look at it up in the air. We were having a hard time determining distance with respects to just with the distance. We couldn't tell was it 24 inches or was it

36 inches. So that's why we had to use lidar. But we were asking was there a possibility this could have happened, and they said yes.

BY MR. HENNING:

Q. So you're discussing a possibility of what falling over?

A. Of that wire falling off the pole. The wire we located on the ground.

Q. So later you were able to confirm that using lidar, but you didn't have that benefit when you were in the field that day?

A. Correct.

Q. But in terms of this wire bending over, causing the fire, was that shared with PG&E?

A. At a later date. Not during when we talked to them about it, the field guys, and they said, yeah, we should go, that was something we could have fixed.

Q. So what do you mean, at a later date?

A. After the repairs were done, we could have gone up there, we need to fix this and make sure the staples were in it.

Q. So what did you actually tell them on that day regarding your findings, your opinions regarding the cause of the Sawmill Fire?

A. That we made sure that those wires are secured.

Q. Okay. Making sure the wire --

A. The ground wire that goes up.

Q. Okay. Is that all you said? "Make sure these

wires are secured." Or did the conversation go beyond that?

A. I don't believe it went beyond that.

Q. So is that the only thing you said that day? "Make sure these wires are secured"?

MR. KRAVIS: Objection. Asked and answered.

THE COURT: Sustained.

THE WITNESS: No, when we talked about it --

MR. KRAVIS: Objection. There's no question pending.

THE COURT: You need to wait.

THE WITNESS: I apologize.

THE COURT: It's all right.

BY MR. HENNING:

Q. You -- the photos that Mr. Fechter took for you, what direction was provided, in terms of what photos he should take?

A. When Fechter was going to climb up there I asked him to go up there, take photos before he makes any -- altering the pole and then afterwards. He went up, took some photos, and he lowered it back down to me -- the camera -- for my review.

Q. I can't hear you.

A. I said he took several photos with my camera and then lowered them back down to me in his little bucket.

Q. Was there any direction provided of to take photos of these insulators?

A. No, I just told him to go up there and take

photos of the top of the pole for me of the area. I wanted to see if there was --

Q. Okay. So going back to People's 54, these are photos that -- just to be clear, these are photos that Mr. Fechter took?

A. Yes, they are.

Q. And in terms of, you know, the one on the bottom appears to be zoomed in the same area as the one on the top.

A. Yes.

Q. Did you give any direction to zoom in on certain photos?

A. No, I did not.

Q. Okay. You just said, take photos at the top of the pole.

A. Yes.

Q. In your experience -- in your experience as a fire investigator, what if any similarities did you draw between the Sawmill Fire and the Kincade Fire?

A. Geographical location was and positioning on the slope were very similar, in regards to that. They were both on spur ridges, which exposed the equipment to higher than normal weather conditions. Their abuse out there by the wind.

Additionally, they had south-facing slopes, which also had fuel type with a lower than normal fuel moisture because it's exposed to the sun all day long, versus on the northern side, which would be in the

shade.

Additionally, because of the wind we noticed there was low cycle fatigue issues with the wind beating up the equipment. In regards to low cycle fatigue, we believe the wires came loose on the Sawmill Fire and contacted that -- we believe that was due to low cycle fatigue, and also low cycle fatigue was an issue with the Kincade.

Q. Did you -- how close were these locations? The location of the Sawmill Fire versus the Kincade Fire?

A. Approximately three miles.

Q. Okay. I'm going to walk up with People's 56.

Can you describe for us what we're looking at -- what you're looking at in People's 56?

A. Looking at an overview photo of the Geysers.

Q. Does People's 56 depict the location of both the Sawmill and Kincade fires?

A. Yes, it does.

Q. And could you mark with an S the approximate location of Sawmill and with a K the approximate location of the Kincade Fire?

A. Do you care which color?

Q. Whatever you think will show up best.

Can you point out for us using the pointer where you drew the S for Sawmill?

A. (Indicating)

Q. And where is the K that you drew for Kincade?

A. (Indicating)

Q. And that distance as the crow flies you said is approximately three miles?

A. Yes, sir.

MR. HENNING: May I just have a moment?

THE COURT: Yes.

MR. HENNING: Thank you, your Honor. I don't have any further questions.

THE COURT: Okay. Thank you, Mr. Henning.

Counsel, I don't know if the bailiff shared with you, we're going to take a recess around 10:55.

MR. KRAVIS: He did. Thank you, your Honor.

MR. BRIAN: Your Honor, while we have a break, this morning before we started you modified your exclusion order. Properly, I might add, but one issue for possible exception. Did your Honor intend to except from that any expert witnesses? In other words, is it appropriate to show the transcript to an expert who would be testifying?

THE COURT: That would make sense to the Court. Do you want to be heard on that?

MR. HENNING: That's fine.

THE COURT: So, yes, with that exception. Thank you for clarifying that.

CROSS-EXAMINATION

BY MR. KRAVIS:

Q. Good morning, sir.

A. Good morning.

Q. What should I call you? Mr. or captain or

officer?

A. Mr. is fine.

Q. Mr. Uboldi, yesterday you testified on direct examination about the wind that you experienced on the night of the Kincade Fire. Do you remember that?

A. Yes, I do.

Q. And I think what you said was that the wind was significantly stronger than other times that you had been to the Geysers, is that right?

A. Yes, sir.

Q. You said your vehicle was actually rocking back and forth?

A. Yes, it was.

Q. You said it was difficult to open your car door because of the wind?

A. Yes, it was.

Q. You said that at times it was even difficult just to stand up straight because of the wind?

A. Yes, it was.

Q. I think you said on one occasion you had to grab hold of a chain link fence to keep from getting blown down the hill?

A. Yes, it was.

Q. Now, you had been to the Geysers area before, is that right?

A. Yes.

Q. Had you been there many times?

A. Yes.

Q. You had never experienced wind this strong in the Geysers as the wind that you experienced on the night of the fire, is that right?

A. That's correct.

Q. Would it be fair to say that from your experience this was an unprecedented level of wind in the Geysers?

A. I had never seen wind like that, you're correct.

Q. By the way, did you also testify on direct examination that on the night of the fire you looked down the line and saw other insulators on other towers moving in the wind?

A. No. I believe I was talking about the conductors themselves.

Q. The conductors. Got it.

Had you ever been to this tower, tower 1 over 6 before the night of the Kincade Fire?

A. No.

Q. So the first time that you saw this tower, tower 1 over 6 and the configuration on the tower, it was on the night of the Kincade Fire?

A. Yes.

Q. And that was the night of the strongest winds that you had ever encountered in the Geysers, is that right?

A. Yes.

Q. Now, I think you testified on direct examination that you went back to Geysers 9-10 in the days after the Kincade Fire. Do I have that right?

A. Yes.
Q. And in the days after the Kincade Fire, you had an opportunity to observe the power plant that is next to tower 1 over 6, is that right?
A. Yes.
Q. I believe on your direct examination, you refer to that power plant as Fumarole 9-10, is that right?
A. That is correct.
Q. Is Geysers 9-10 another name for that power plant?
A. I believe so.
Q. And I think you testified that that power plant is owned by a company called CalPine, is that right?
A. I believe so.
Q. It's C-A-L-P-I-N-E? Did I spell that correctly?
A. Yes.
MR. KRAVIS: Okay. Could we have People's Exhibit 5, please?
BY MR. KRAVIS:
Q. Mr. Uboldi, this has been marked and admitted into evidence as People's Exhibit 5. I think you were asked some questions about this photo on direct examination yesterday. Do you remember that?
A. Yes, I do.
Q. This is a photo of the power plant, right? Fumarole 9-10 or Geysers 9-10?
A. Yes.
Q. And by the way, this is a view of the power plant

from the tower, is that right?

A. General vicinity, yes.

Q. So if I were a PG&E inspector, let's say, going out to look at tower 1 over 6 and I were looking in the direction of the power plant, this is basically what I would see, right?

A. Yes.

Q. You see that big thing in the front there? It's like a big sort of barrel with some legs on it, and it's got some insulators, some insulators or coils coming out of it?

A. Yes, I do.

Q. What is that?

A. I'm not -- I do not know.

Q. You don't know what that is?

A. I know it's some type of power plant equipment.

Q. That's a high voltage circuit breaker, isn't it?

A. Is it? I don't know, sir.

Q. It's like a fancy version of the fuse box you have in your house, right?

A. I cannot identify it. I'm not that savvy with their equipment.

Q. For a power plant that was connected to a transmission line, this piece, this high voltage circuit breaker, this would be an essential piece of equipment, right?

MR. HENNING: Objection. Foundation.

THE COURT: Sustained.

BY MR. KRAVIS:

Q. How about the thing behind the high voltage circuit breaker? That big sort of gray thing behind it. What's that?

A. Big gray box, I can't --

MR. HENNING: I'm going to object as vague. I see a lot of gray things behind it.

THE COURT: Sustained.

MR. KRAVIS: May I approach the screen?

THE COURT: You may. You have freedom to use the well.

BY MR. KRAVIS:

Q. Sir, I am using the pointer now to point to a large gray box that appears behind the high voltage circuit breaker in the bottom left-hand corner of People's Exhibit 5. Do you see where I'm pointing?

A. Mm-hmm.

Q. Is that a yes?

A. Yes, it is.

Q. That piece of equipment that I was just pointing to, that's a transformer, isn't it?

A. I don't know if it is.

Q. That costs about $1.3 million, doesn't it?

MR. HENNING: Objection. Lacks foundation.

THE COURT: Sustained.

BY MR. KRAVIS:

Q. And to be clear, all of this equipment that we see in this photo, it was all there when you went out to

look at Geysers 9-10 in the days after the Kincade Fire, right?

A. Yes.

Q. And behind that equipment, behind the high voltage circuit breaker and the transformer --

THE COURT: Counsel, you keep referring to those things by their names as if there's evidence that's what they are. There's not.

MR. KRAVIS: Thank you, your Honor.

BY MR. KRAVIS:

Q. Behind the piece of equipment that I was pointing to a moment ago with the pointer, there is a large pale gray structure. Do you see that?

A. The large building in the background?

Q. Yes.

A. (Witness nods head)

Q. That's the main building for the power plant, isn't it?

A. I believe so.

Q. And that building was still there when you went out to look at it on the days after the Kincade Fire, is that right?

A. Yes.

Q. Now, this power plant, Geysers 9-10, this is a geothermal power plant, right?

A. Yes.

Q. And a geothermal power plant uses wells to produce steam that gets turned into energy, right?

A. Yes.
Q. As of October 2019, the time of the Kincade Fire, the wells, the steam wells at Geysers 9-10, they were still there, weren't they?
A. Yes.
Q. Okay. Now you testified yesterday on direct examination about the configuration of the tower, tower 1 over 6. Do you remember that?
A. Yes, I do.
Q. And in particular, you testified about the configuration of the Geysers 9 Lakeville side of the tower, right?
A. Yes.
Q. And I think you testified that you thought that the configuration of that side of the tower was odd. Do you remember saying that?
A. Yes.
Q. I want to ask you some questions about that now.
When you worked at Cal Fire, part of your responsibilities was investigating fires, is that right?
A. Yes.
Q. And that could be fires caused by anything, it's not just electrical equipment fires, right?
A. Correct.
Q. I think you testified yesterday that in your career at Cal Fire, you worked on or were the lead investigator for approximately 15 to 20 fires involving electrical lines, is that right?

A. That is correct.
Q. Have you ever worked in the electrical industry?
A. No.
Q. Have you ever received any training on the construction of high voltage transmission towers?
A. No.
Q. During your investigation into the Kincade Fire, did you look at any industry standards on transmission line configuration?
A. I have read the GO 95s. The general order 95s.
Q. You're talking about the general orders, right?
A. Yes, sir.
Q. The general orders are orders issued by the CPUC, right?
A. Yes, sir.
Q. I'm asking you about industry manuals or industry guidance on the construction of transmission lines. Did you look at any of those?
A. No, sir.
Q. Are you aware that there are entire volumes that address the impact of wind-induced motion on transmission lines?
A. I'm aware there's literature out there, yes.
Q. Have you ever heard of something called the orange book?
A. I believe so. I've heard of that before.
Q. Do you know who publishes the orange book?
A. No, sir.

Q. Do you know what its real title is?
A. No, sir.
Q. If I used the phrase Transmission Line Reference Book, Wind-Induced Conductor Motion, does that ring a bell with you at all?
A. Possibly if I saw it. I'm aware of the orange book. I wasn't aware of the full title.
Q. Could you say that last part?
A. I wasn't aware of the full title.
Q. In the course of your investigation into the Kincade Fire, did you consult the orange book?
A. No.
Q. Have you ever heard of something called the green book?
A. I've heard of the green book, yes.
Q. Do you know what the full title of the green book is?
A. No, sir.
Q. It's called Overhead Lines, published by the International Counsel on Large Electric Systems.
Does that ring a bell for you?
A. Yes, vaguely.
Q. In the course of your investigation into the Kincade Fire, did you consult the green book?
A. No.
Q. So is it fair to say that you cannot point to any industry standard or industry manual or industry guidance that says there was anything wrong with the

setup of tower 1 over 6?

A. Could you repeat that?

Q. Yes.

Would it be fair to say that you cannot point to any industry standard or industry manual or industry guidance that says there was anything wrong with the setup of tower 1 over 6?

MR. HENNING: Lacks foundation.

THE COURT: Overruled.

THE WITNESS: I did not refer to the manual.

BY MR. KRAVIS:

Q. And would it be fair to say that you cannot point to any industry standard or industry manual or industry guidance that would have called for a different configuration of the jumpers on tower 1 over 6?

A. No.

Q. You mean it would be fair to say or would not be fair to say?

A. I did not consult the manual.

Q. I'd like to talk with you now about PG&E's own guidance for jumper construction.

Could we please have document or tab 48? This has been marked for identification as Defense Exhibit M, like Mary.

Sir, do you recognize this document?

A. No.

Q. This is the overhead transmission line design criteria published by PG&E, isn't it?

A. I believe so.
Q. And the date on this document is August 15, 2017?
A. That's what it says.
Q. Now, the jumper that failed on tower 1 over 6, that was part of an overhead transmission line, wasn't it?
A. Yes.
Q. I'd like to direct your attention now to page 11 of the document.
Do you see at the top there the heading reads Insulation Criteria?
A. Yes.
Q. I'd like to direct your attention to the fourth paragraph in this section titled Insulation Criteria. It reads, "For all wood and steel construction, jumper support insulator strings shall be installed on dead-end loops to restrain the conductor during high wind conditions."
Did I read that right?
A. Yes.
Q. Now, you would agree with me, would you not, that tower 1 over 6 is a steel construction, right?
A. Yes.
Q. And the jumper cables on the tower are what this standard refers to as dead-end loops, right?
A. I believe so.
MR. HENNING: Objection. Foundation.
THE COURT: Sustained. You can ask him whether

he's familiar with the term.
BY MR. KRAVIS:
Q. Are you familiar with the term dead-end loops?
A. Yes.
Q. Would you consider the jumper cables on tower 1 over 6 to be dead-end loops?
A. I've heard them called that, yes.
Q. So according to the standard, the jumpers on tower 1 over 6 needed jumper support insulator strings, right?
A. Could you repeat that?
Q. Yes.
According to the sentence that we just looked at in the fourth paragraph, a steel construction -- or a steel construction like tower 1 over 6, the jumper -- the dead-end loops needed jumper support insulator strings, right?
A. Correct.
Q. And in particular, the jumper support insulator strings are specifically installed to restrain the conductor in high winds, right? High wind condition?
A. I believe so.
Q. I want to direct your attention now to the second paragraph under Insulation Criteria. And the first sentence of the second paragraph reads, "For suspension and dead-end insulator strings, porcelain or glass insulators are the preferred construction material."
Did I read that right?

A. Yes.
Q. Have you ever seen in person porcelain insulator strings?
A. Yes.
Q. They're like really heavy, right?
A. Yes, they are.
Q. Now I would like to show you what's been marked for identification as Defense Exhibit N, like Nancy.
And this is going to be document 71, please.
Mr. Uboldi, this is a photo of the jumper cables on tower 1 over 6, is it not?
A. Without other geographical reference, I can't say. I believe they are. They look the same construction.
Q. The loop along the -- in the bottom middle -- actually, let me start over.
May I approach?
THE COURT: You may.
BY MR. KRAVIS:
Q. Mr. Uboldi, I'm using the pointer now to direct your attention to a brown wire running across the bottom middle of the exhibit.
Do you see where I'm pointing?
A. Yes, I do.
Q. That's the jumper cable or dead-end loop along the bottom, right?
A. Affirm.
Q. And on the right-hand side, the vertical line of

white discs or circles, that's a jumper support insulator string, isn't it?

A. Yes.

Q. And the insulator string on tower 1 over 6, that was made of porcelain, right?

A. Yes.

Q. So tower 1 over 6 met PG&E's standard for overhead transmission line design criteria that we just looked at, right?

MR. HENNING: Objection. Lacks foundation.

THE COURT: Sustained.

BY MR. KRAVIS:

Q. Mr. Uboldi, you've been to tower 1 over 6, right?

A. Yes, sir.

Q. Did it have jumper support insulator string on it?

A. Yes, it did.

Q. Was the jumper support string on tower 1 over 6 made of porcelain?

A. Yes, it was.

Q. Mr. Uboldi, are you aware of any industry guidance, industry manuals, industry reference materials that recommend the use of jumper support insulator strings to reduce wind sway on jumpers?

A. No, sir.

Q. So PG&E's guidance that we looked at a moment ago actually exceeds the standards in the industry, right?

MR. HENNING: Objection. Argumentative.

THE COURT: It also lacks foundation.

BY MR. KRAVIS:

Q. Now, Mr. Uboldi, tower 1 over 6 was routinely inspected by PG&E, right?

A. Per their records, yes.

Q. And you reviewed some of those inspection records as part of your investigation, did you not?

A. Yes.

Q. In fact, you included several inspection forms as attachments to your report on the Kincade Fire, is that right?

A. Yes.

Q. One of the reports that you attached was from an inspection that took place in February of 2019, is that right?

A. I believe so.

Q. And that was inspection of tower 1 over 6, right?

A. I believe so.

Q. It was an inspection that was conducted in February of 2019?

A. Yes.

Q. And that was -- February 2019 would have made it a little over nine months before the Kincade Fire, is that right?

A. Correct.

Q. And that February 2019 inspection, that was actually a climbing inspection, right?

A. I believe so.

Q. A climbing inspection means that the inspector actually like climbs up the tower to inspect it, right?

A. That's what I've seen them do before, yes.

Q. And as part of the inspection, PG&E looked at the conductors, right?

A. That's what it says in the report, yes.

Q. And the inspection report from February 2019 noted no problems with the conductor, right?

A. I believe that's what that report said, yes.

Q. And the February 2019 inspection report noted no problems with the jumpers, right?

A. I believe that's what the report said, yes.

Q. You also attached to your report of the Kincade Fire a report of a drone inspection from May of 2019, is that right?

A. Yes.

Q. So this would have been between five and six months before the Kincade Fire, is that right?

A. Yes.

Q. And the May 2019 inspection report says that it also looked at the conductors on the tower, right?

A. I believe so.

Q. And the May 2019 inspection report noted no problems with the conductors, right?

A. I believe that's what the report stated.

MR. HENNING: Your Honor, all these answers I'm going to object as non-responsive, and I'm going to ask -- if he needs to refresh his recollection he should

request that.

THE COURT: Well, so far he stated he believes so, which would be affirmative, so I'll overrule the objection. If he needs to refresh his recollection, you're welcome to let us know.

BY MR. KRAVIS:

Q. Yes, Mr. Uboldi, if at any point during these questions you would like to see the inspection form that was attached to your report, please let me know.

A. I'd love to, please.

MR. KRAVIS: May I approach the witness?

THE COURT: Yes, you may.

BY MR. KRAVIS:

Q. Mr. Uboldi, I'm handing you what has been marked for identification --

And these exhibits have been shown to the People.

THE COURT: Thank you.

BY MR. KRAVIS:

Q. -- what has been marked for identification as Defense Exhibit O, like ostrich, and Defense Exhibit P, like Peter. Do you have those in front of you?

A. Yes, I do.

Q. Great. Let me direct your attention first to Defense Exhibit O. And I'm going to ask you to turn to page 14 of the exhibit.

Do you see that starting on page 14 there's a heading that says Conductor Hardware Insulators? Do you see that?

A. There's two sets of page numbers here. That's why.

On the bottom of the page it says DOC 64-618.

Q. It should say DA - Kincade - 617.

MR. HENNING: I think it's a page before.

BY MR. KRAVIS:

Q. In the very bottom right corner there should be a notation that says doc 64-617. Do you see that?

A. Yes.

Q. And you see where it says Conductor Hardware Insulators?

A. Yes, I do.

Q. Could you please take a look at that page and the next page? Don't say anything. Just take a look at them, and then go ahead and look up at me after you've had a chance to review them.

Did reviewing those two pages of the exhibit refresh your recollection as to whether the February 2019 inspection included an inspection of the conductors?

A. Yes.

Q. Did it?

A. Yes.

Q. Did it --

A. Sorry.

Q. It's okay. Did the February 2019 inspection include an inspection of the conductors?

MR. HENNING: Calls for speculation as phrased.

He can testify what's in the report, but he wasn't there.

THE COURT: Sustained.

BY MR. KRAVIS:

Q. Did looking at the document refresh your recollection as to whether the inspection report from February 2019, that you reviewed and included as an attachment to your own report, whether that inspection report noted the inspection of the conductors?

A. Yes.

Q. And did looking at the document refresh your recollection as to whether the February 2019 inspection report noted any problems with the jumpers or the conductors?

A. Per the documents, does not note any issues with the conductors or jumpers.

Q. Now I'd like you to turn to the next exhibit I handed you. P like Paul. And I would like to direct your attention to the page of the document, the fifth page of the document, which should bear the label doc 64-597 in the bottom right. Do you see that?

A. Yes, I found it.

Q. Could you see the section that begins "conductor"?

A. Yes.

Q. Can you review that for me, please, and then look up at me when you finish.

Does that section of the document refresh your

recollection as to the scope of the May 2019 inspection as reported in the inspection report?

A. Yes.

Q. Did the inspection report say that the inspection looked at the conductors?

A. It doesn't state they looked at the conductors. It just states that their, for instance, conductors were in poor condition.

Q. And the May 2019 inspection report reports that the conductors were not in poor condition. That's what the report says, right?

A. Yes.

Q. And it says the jumpers were not in poor condition, correct?

A. Yes.

MR. HENNING: I'm going to object. It's just not what I'm reading on the document.

THE WITNESS: Correction. It says not applicable.

THE COURT: So the objection is overruled, but the witness's answer will stand.

BY MR. KRAVIS:

Q. Mr. Uboldi, am I correct that the May 2019 inspection report also reported no visual damage on the conductors?

A. No.

Q. Can I ask you to turn to the next page of the document, doc 64-598 in the bottom right-hand corner.

Do you see that?

A. Yes.

Q. Can you take a look at the top left section of that page, and then look up at me.

Does that refresh your recollection as to whether the May 2019 inspection report reported no visual damage to the conductors?

A. Yes, as represented as condition code 1.

Q. What is condition code 1?

A. No visual damage.

Q. Your office also received inspection reports from PG&E for the years 2014 through 2019 for the two transmission lines that run into tower 1 over 6, right?

A. I believe so.

Q. Did you review those?

A. I'd have to see the documents myself to confirm.

THE COURT: Mr. Kravis, would this be a good moment to take a recess?

MR. KRAVIS: Yes. Thank you, your Honor.

THE COURT: Let's take our 15 minute morning recess. We'll resume at 10 minutes after the hour.

MR. BRIAN: Your Honor, may we have a standing order once we start cross examination counsel may not consult with a witness until he's been excused as a witness?

THE COURT: Do you want to be heard?

MR. HENNING: That's fine, your Honor.

THE COURT: That will be the standing order.

MR. HENNING: I just ask it be mutual.
THE COURT: It's a mutual order.
MR. BRIAN: We get it.
THE COURT: All right. Recess, 15 minutes.
(Recess)
THE COURT: Back on the record. Parties are present and in their places. Mr. Kravis.
MR. KRAVIS: Thank you, your Honor.
THE COURT: You're welcome.
BY MR. KRAVIS:
Q. Mr. Uboldi, I just want to go back to one topic that we were addressing before the break.
I'm showing you now on the screen what has previously been marked and entered into evidence as People's Exhibit 7. I think you looked at this photo on direct examination yesterday. Do you remember that?
A. Yes, I do.
Q. Okay. I'm pointing with my pen here at a vertical row of discs, the top center of the photo. Do you see where I'm pointing?
A. Yes, I do.
Q. Oh, by the way, Exhibit 7, this is tower 1 over 6, right?
A. Correct.
Q. And the row of discs in the top center, they're white discs, that's the jumper support insulator string, right?
A. Yes.

Q. And I'm pointing with my pen at another vertical row of white discs in the top, closer to the top center of the photo, Exhibit 7. Do you see where I'm pointing?
A. Yes.
Q. That is also a jumper support insulator string on the tower, right?
A. Yes.
Q. And I'm pointing now with my pen at another vertical row of white discs. This is closer to the bottom center of People's 7. Do you see that?
A. Yes.
Q. That is another jumper support insulator string on tower 1 over 6, correct?
A. Yes.
Q. You have personally looked at those jumper support insulator strings, right?
A. Yes.
Q. They are made of porcelain, right?
A. Yes.
Q. And as we talked about before, porcelain insulator strings are really heavy, right?
A. Yes.
Q. Now, yesterday on direct examination you testified a little bit about the configuration of the PG&E power lines in this area of the Geysers. Do you remember that testimony?
A. Yes.
Q. I want to go back and ask you some questions

about that. And I want to start --

May I approach, your Honor?

THE COURT: You may.

BY MR. KRAVIS:

Q. I want to start by showing you what has previously been admitted as People's 62. Do you remember People's 62?

A. Yes, I do.

Q. This is a map that depicts the transmission lines in the area of tower 1 over 6, right?

A. Yes.

Q. And the tower is depicted here, there's a green star, and below it the number 001/006. Do you see that there?

A. Yes, I do.

Q. That's the location of tower 1 over 6, right?

A. Yes.

Q. And just above it and to the right there's a red dot, and above the red dot there is text that reads Geysers number 9 and number 10 PP. Did I read that right?

A. That's correct.

Q. That red dot is the location of the plant we've been talking about, Geysers or Fumarole 9-10, right?

A. Correct.

Q. Now, at the time of the Kincade Fire, tower 1 over 6 supported two transmission lines, is that right?

A. Yes.

Q. One of those lines is called the Geysers number 9 Lakeville line, is that right?
A. Yes.
Q. And one of them is the Geysers number 12 Fulton line, is that right?
A. Yes.
Q. Do you see the blue line that runs from the bottom center of People's 62 up to the X in the middle, and then from there up to the top left of the exhibit? Do you see that blue line?
A. Yes, I do.
Q. That's the Geysers number 12 line, right?
A. Yes.
Q. The Geysers number 12 line does not stop at tower 1 over 6, correct?
A. Correct.
Q. It continues north up to another power plant, right?
A. Yes.
Q. And that power plant is Geysers unit 12, right?
A. Yes.
Q. It's depicted here in the top left corner of the map, the red dot, right?
A. Yes.
Q. Geysers unit 12 is also sometimes called Cobb Creek power plant, is that right?
A. I believe I've heard it called that, yes.
Q. That plant, Geysers number 12, or Cobb Creek,

that is also owned by CalPine, right?

A. I believe so.

Q. As of October 2019, that plant was active and generating power, right?

A. I believe so.

Q. Now I'm going to show you a map -- actually, I'm going to leave this here.

And now I'm going to show you a map that was entered into evidence yesterday that shows the entire Geysers 12 line. This has been previously marked and admitted as People's 32. Do you remember People's 32?

A. Yes, I do.

Q. People's 32 is a further-out map of the transmission lines and plants in this area of the Geysers, right?

A. Yes.

Q. And the power line that we were just talking about, Geysers 12, is depicted on People's 32 as running straight down the top middle to the Fulton substation in the middle of the exhibit, right?

A. Can you repeat that?

Q. Yes. The line that we were talking about a moment ago, Geysers number 12, on this exhibit, People's 32, Geysers number 12 runs straight down the top center of the exhibit all the way down to the Fulton substation, is that correct?

A. Yes.

Q. The Geysers number 12 line runs continuously

between the Cobb Creek plant that we saw a moment ago at its northern end and the Fulton substation at its southern end, is that correct?

A. Yes.

Q. That means that the entire Geysers number 12 line carries power south from Cobb Creek down to Fulton, right?

A. I believe so, yes.

Q. So the entire Geysers number 12 line is active, right?

A. Yes.

Q. And that includes the portion of the Geysers number 12 line at tower 1 over 6, correct?

A. Yes.

Q. Okay. Now I'd like to ask you some questions about the other line.

I'm going to go back to People's Exhibit 62.

At the time of the Kincade Fire, the Geysers number 9 line started at tower 1 over 6, is that right?

A. Yes.

Q. And heading south from that spot -- I shouldn't say south. Heading down towards the bottom of the exhibit, the next tower down the line is 1 over 7, right?

A. Correct.

Q. Then 1 over 8?

A. Correct.

Q. Then 1 over 9, right?

A. Correct.
Q. And when we get to 1 over 9, there's another line coming off of the Geysers number 9 line, right?
A. Yes.
Q. I think you referred to that yesterday on direct examination as the SMUD or S-M-U-D tap line. Do I have that right?
A. Yes.
Q. That line connects to another power plant, right?
A. Yes.
Q. That power plant is depicted in the lower right quadrant of the exhibit with a red dot labelled Sonoma CalPine PP, right?
A. Yes.
Q. This is sometimes called the Sonoma plant, right?
A. Yes.
Q. It's also sometimes called unit 3?
A. I believe so.
Q. This is also -- this Sonoma power plant is also owned by CalPine, right?
A. Yes.
Q. And at the time of the Kincade Fire this plant was still active, right?
A. I believe so.
Q. So at tower 1 over 9, there is an active power plant feeding into the Geysers number 9 line, is that right?
A. Yes.

Q. And tower 1 over 9 is three towers down from tower 1 over 6, right?

A. Yes.

Q. I'm going to take you back now to People's 32.

On people's 32, the Geysers 9 line is depicted in green, right?

A. I believe so. It's hard to see with that, but I've seen that photo before.

Q. Do you want to see it up close?

A. Yes, please.

Q. I'm going to direct your attention to the bottom center of the exhibit. Do you see there's a color key down there?

A. Yes, I do.

Q. The Geysers number 9 line is green, right?

A. Yes.

Q. Now on People's Exhibit 32, the Geysers 9 line in green runs all the way down to the Lakeville substation, right?

A. Yes.

Q. The Lakeville substation is located outside of Petaluma, right?

A. Yes, it is.

Q. Petaluma is about -- I don't know -- 40 miles from the Geysers, does that sound right?

A. Yes.

Q. So this section of the Geysers number 9 line that runs from tower 1 over 9 down to Lakeville carries power

from an active power plant, right?

A. Yes.

Q. It carries power from that Sonoma plant that's connected by the tap line, right?

A. Yes.

Q. So that means that from tower 1 over 9 to the Lakeville substation, that portion of line is active, right?

A. Yes.

Q. At the time of the Kincade Fire, the only portion of the Geysers number 9 line that did not carry power from an active power plant was the last three spans of the line, right?

A. Yes.

Q. That's the portion of the line between tower 1 over 6 and tower 1 over 9, right?

A. Correct.

Q. In total, if you added it all up, the Geysers 9 line and the Geysers 12 line, both of the lines that are on tower 1 over 6, they run about 66 total miles, don't they?

A. I believe so. I didn't --

MR. HENNING: Objection. Move to strike. Non-responsive. Ask for foundation.

THE COURT: Well, do you know the answer to that question?

THE WITNESS: No, I do not.

THE COURT: Sustained.

BY MR. KRAVIS:

Q. Those two lines, Geysers 9 and Geysers 12, they cover about 300 towers, don't they?

MR. HENNING: Objection. Foundation.

THE WITNESS: I don't know.

THE COURT: Overruled. The answer will stand.

BY MR. KRAVIS:

Q. Those two lines, Geysers 9 and 12, connect to ten different power plants, don't they?

MR. HENNING: Same objection.

THE WITNESS: I don't know.

THE COURT: Overruled.

BY MR. KRAVIS:

Q. And all -- everything on the Geysers 9 line and the Geysers 12 line, all of it is -- at the time of the Kincade Fire, all of it was active except for the three spans between 1 over 9 and 1 over 6, correct?

A. Say that one more time?

Q. Yeah. All of the spans of the lines that we were just looking at, all of Geysers number 12 from Cobb Creek down to the substation, and Geysers 9 from tower 1 over 9 down to the substation, all of that line was active at the time of the Kincade Fire except for the three spans between tower 1 over 9 and tower 1 over 6, correct?

MR. HENNING: I'm going to object as foundation as to the word "active."

THE COURT: Sustained.

BY MR. KRAVIS:

Q. Did you -- you said you investigated the Kincade Fire, is that correct?

A. Yes.

Q. And I think you said during your testimony yesterday that you investigated the line, didn't you?

A. Yes.

Q. And in fact, you drove some portions of the line, right?

A. Yes, I did.

Q. You went to see where the line connected, right?

A. Yes.

Q. And the maps that I showed you today, you're familiar with those, right?

A. Yes.

Q. You testified yesterday that those are fair and accurate depictions of the power lines in this area?

A. Yes.

Q. Okay. Based on your familiarity with those materials and your investigation of the lines, can you name any other span of these lines that was not active at the time of the Kincade Fire, other than the three spans between 1 over 9 and 1 over 6?

MR. HENNING: Objection. Misstates the evidence as to active.

THE COURT: Sustained.

BY MR. KRAVIS:

Q. Can you name any other span of line -- excuse me,

any other spans on these two lines that was not carrying live electricity at the time of the Kincade Fire, other than the spans between 1 over 9 and 1 over 6?

MR. HENNING: Objection. Lacks foundation.

THE COURT: Sustained.

THE WITNESS: With the --

MR. HENNING: Objection. No question pending.

MR. KRAVIS: There's no question.

THE WITNESS: Sorry. I apologize.

BY MR. KRAVIS:

Q. Mr. Uboldi, you testified on direct examination about a fire called the Sawmill Fire. Do you remember that?

A. Yes.

Q. You were the lead Cal Fire investigator for the Sawmill Fire, is that right?

A. Correct.

Q. Mr. Uboldi, did you testify on direct examination that the Sawmill Fire was caused by low cycle fatigue?

A. I testified that it was -- it was regards to the failure on the power lines.

Q. I'm sorry?

A. Failure of the equipment. In the report I stated it was because of the equipment.

Q. Right. My question was, did you testify on direct examination that low cycle fatigue caused the Sawmill Fire?

A. Yes.

Q. Did you write a report on the Sawmill Fire?
A. Yes, I did.
Q. And you testified yesterday that you received training as an investigator, right?
A. Yes, sir.
Q. And based on your training and experience, you know that it is important for your investigative reports to be accurate, right?
A. Yes, sir.
Q. And that's important because law enforcement or other agencies may rely on your reports, right?
A. Yes, sir.
MR. KRAVIS: May I approach?
THE COURT: You may.
BY MR. KRAVIS:
Q. Mr. Uboldi, I've handed you what has been marked for identification as Defense Exhibit R. That is a copy of the report that you prepared on the Sawmill Fire, right?
A. Yes.
Q. Your name is on the front, right?
A. Yes.
Q. Mr. Uboldi, nowhere in this report do the words low cycle fatigue appear, do they?
A. They do not.
Q. When did you conclude that low cycle fatigue caused the Sawmill Fire?
A. It was during our investigation with our subject

matter expert Nolt that that was brought up.

Q. Oh. So that was after you prepared the report of the Sawmill Fire?

A. That was during.

Q. It was only after -- and who is Nolt again?

A. He's an electrical engineer that was employed by us.

Q. So it was only after talking with Mr. Nolt that you decided that low cycle fatigue caused the Sawmill Fire?

A. No.

Q. Isn't that what you just said?

A. Yes.

Q. In fact, the Sawmill Fire report, the word "fatigue" appears nowhere in this report, correct?

A. It does not. You're correct.

Q. I want to ask you now about the equipment that was involved in the two fires. The Kincade Fire involved a steel tower, right?

A. Correct.

Q. The PG&E facility involved in the Sawmill Fire was not a steel tower, was it?

A. Correct.

Q. It was a wooden pole, right?

A. Correct.

Q. The Sawmill Fire and the Kincade Fire also involved different kinds of wires, didn't they?

A. Yes.

Q. The Sawmill Fire involved a bond wire, right?
A. Yes.
Q. I'm going to show you what has been marked and admitted into evidence as People's Exhibit 49. Do you recognize that?
A. Yes, I do.
Q. That is a photo of the bond wire that was involved in the Sawmill Fire, right?
A. Yes.
Q. This is a single wire, right? It's not multiple strands?
A. Yes.
Q. And this single wire from the Sawmill Fire, this was connected to the wooden pole, right?
A. Yes.
Q. And it was connected to the wooden pole by staples, right?
A. Yes.
Q. I think on direct examination you referred to them -- was it horseshoe clamps?
A. Nails.
Q. Horseshoe nails. That's basically like a heavy staple, right?
A. That is correct.
Q. Now the Kincade Fire did not involve a single-strand bond wire, did it?
A. No.
Q. I'm going to show you what's been marked and

admitted as People's Exhibit 28. This is a photo of the jumper cable from the Kincade Fire, right?

A. Correct.

Q. This is much thicker than the bond wire from Sawmill, right?

A. Correct.

Q. There are lots of strands inside that cable, right?

A. Yes.

Q. You've seen this in person, right?

A. Yes.

Q. This cable is much heavier than the bond wire from Sawmill, right?

A. Yes.

Q. There is no way that you could staple that jumper cable to a wooden pole, could you?

A. Not that I've seen, no.

Q. The two wires, the bond wire and the jumper cable, they also have different purposes on their respective structures, right?

A. As far as I understand, yes.

Q. Yeah. Like you could not use -- you could not string a single-strand bond wire from pole to pole to carry electricity, could you?

A. I'm not an electrician. No, I'm not aware of that.

Q. Okay. Now, you testified on direct examination that in your view the configuration of the tower from

the Kincade Fire was odd, right?

A. Yes.

Q. And I think you testified earlier this morning that the configuration of the tower, the Kincade tower, made it susceptible to low cycle fatigue, right?

A. Yes.

Q. And when you use the term low cycle fatigue, you are talking about fatigue or stress from movement, right?

A. Yes.

Q. Like the example you gave us yesterday was a paperclip, right?

A. Yes, it was.

Q. And what you said about the paperclip was you bend it back and forth and eventually the fatigue from the movement causes the paperclip to break, is that right?

A. Yes.

Q. And that was the example you gave of low cycle fatigue, is that right?

A. Yes.

Q. And in the context of the Kincade Fire, the movement we're talking about is movement from wind, right?

A. Correct.

Q. So to show you People's Exhibit 59 -- it's been admitted into evidence -- this is tower 1 over 6, right?

A. Correct.

Q. And the jumper cables are the brown lines that run from left to right across the top and middle of the exhibit, as I'm indicating here with my pen. Those are the jumper cables, right?

A. Correct.

Q. And the idea here -- your testimony was that those jumper cables are exposed to movement from the wind, is that right?

A. Yes.

Q. Okay. Low cycle fatigue could not possibly have caused the failure in the Sawmill Fire, could it?

MR. HENNING: Objection. Argumentative.

THE COURT: Overruled. You can answer.

THE WITNESS: Can you repeat your question?

BY MR. KRAVIS:

Q. Low cycle fatigue could not possibly have caused the failure of the wire in the Sawmill Fire, could it?

A. It could have.

Q. Let me show you what's been entered into evidence as People's Exhibit 53.

You were shown this photograph this morning. The bottom photograph in People's 53 is the pole from the Sawmill Fire after it had been repaired by PG&E, correct?

A. Yes.

Q. And the horseshoe nails or staples that you were talking about are pictured here in two places in the photograph, towards the top middle and towards the

bottom middle where I'm pointing with my pen, correct?
A. Yes.
Q. The staples do not move, do they?
A. They will.
Q. Your testimony is -- the staples are not configured to move, are they?
A. No.
Q. In fact, that's the whole point of the staple, right?
A. Essentially.
Q. The staple staples into a wooden pole, right?
A. Yes.
Q. And the staple, when it's stapled into the wooden pole, holds the wire in place, right?
A. It's supposed to.
Q. The staples do not move in the wind, do they?
A. No, they do not move in the wind.
Q. In fact, when they're stapled into the wooden pole, the staples do not move at all, do they?
A. Eventually over time they will move. They could back themselves out.
Q. You mean eventually over time they could fall out of the pole, right?
A. Yes.
Q. But they do not move, bend back and forth like your paperclip, do they?
A. Not that I'm aware of.
Q. So just to sum up here, your Sawmill Fire report

never uses the word low cycle fatigue, does it?
A. Does not.
Q. The Sawmill Fire involved a different structure than the Kincade Fire, a wooden pole and not a steel tower, right?
MR. HENNING: Objection. Asked and answered.
THE COURT: Sustained. Unless this is foundation and you're going somewhere that I'm not seeing.
MR. KRAVIS: May I just have two more questions on this?
THE COURT: Go ahead.
MR. KRAVIS: Okay. Thank you.
BY MR. KRAVIS:
Q. And so the Sawmill Fire involved a different kind of structure, a wooden tower, not a steel pole, right?
A. Yes.
Q. It involved a different kind of wire, the single strand bond wire, not a heavy multistrand jumper cable, right?
A. Yes.
Q. And the Sawmill Fire did not involve a configuration issue, right?
A. Could you elaborate?
Q. You are not saying, are you, that the staples in the pole on the Sawmill Fire were configured in a way that allowed for low cycle fatigue, are you?
A. No.

MR. KRAVIS: May I have just a moment, please?
THE COURT: You may.
BY MR. KRAVIS:
Q. Mr. Uboldi, I'd like to ask you a few questions about the night of the fire.
The circuit breaker -- on the night of the fire, the circuit breaker on the transmission line was tripped around 9:20 p.m., right?
MR. HENNING: I'm going to object on foundation, your Honor.
THE COURT: Sustained. You can lay a foundation.
BY MR. KRAVIS:
Q. Mr. Uboldi, did you write in your report about the trip of the circuit breaker on the night of the fire?
THE COURT: Which fire are we talking about?
MR. KRAVIS: I'm sorry. I apologize.
BY MR. KRAVIS:
Q. The night of the Kincade Fire. I'm asking you about the night of the Kincade Fire.
Mr. Uboldi, in the course of your investigation into the Kincade Fire, did you look into when the circuit breaker was tripped on the transmission line?
A. I'd have to refer to my report.
Q. Do you have a copy up there?
A. I have a copy.
Q. Let me direct your attention to page 21 of your

report. Don't read anything out loud.
A. I won't.
Q. But can you read for me, please, the first paragraph, to yourself, lines 1 through 4, and then look up at me when you finish.
A. I finished.
Q. Okay. Does that refresh your recollection as to your investigation into when the line was tripped on the night of the Kincade Fire?
A. Yes.
Q. It was tripped at 9:20 p.m., right?
A. Correct.
Q. So the fire had to have started sometime after 9:20 p.m., right?
A. I believe so.
Q. The Cal Fire emergency command center dispatched to the fire at about 9:27 p.m., right?
A. Yes.
Q. So that means that authorities were aware of the fire at most seven minutes after it started, right?
A. Yes.
Q. You received that Cal Fire emergency command center notification, right?
A. Yes, I did.
Q. I think you testified yesterday that you got it by text message?
A. Yes.
Q. And I think after you got the message you said

you dressed and then you went to the fire?

A. Yes, I did.

Q. And I think you testified yesterday that your access to the tower was blocked by dangerous fire conditions, is that right?

A. That is correct.

Q. When you arrived at the scene of the fire, other Cal Fire officers were already present at the scene, right?

A. Yes.

Q. And there were -- there was at least one CalPine employee in the area where the fire started?

A. Yes.

Q. No one from PG&E was present when you arrived at the tower, correct?

A. Not that I observed.

Q. And when Cal Fire arrived, Cal Fire hung yellow flagging at the entrance to the plant to indicate that no one should enter, right?

A. Yes.

Q. Cal Fire also retained scene security, right?

A. Yes.

Q. And no one was allowed past the yellow flagging without a Cal Fire escort, correct?

A. That is correct.

Q. Now I want to ask you about the area of the fire here.

In the course of your investigation you

determined that the specific origin area of the fire was downslope or south of the tower. Do I have that right?

A. That is correct.

Q. And you concluded that a heat source initially ignited the vegetation from this location, which then spread to surrounding vegetation?

A. Yes.

Q. Okay. That area that you identified as the specific origin area, PG&E does not own that land, does it?

A. No.

Q. In fact, this tower, 1 over 6, the tower is located like 200 yards behind a gate, isn't it?

A. That's a rough estimation, but yeah. I would say, yeah.

Q. That gate is controlled by CalPine, right?

A. I believe so.

Q. CalPine is the owner of the plant, right?

A. Yes.

Q. In fact, on the night of the fire, a CalPine employee had to come open the gate so Cal Fire could get in, right?

A. That's what I was told. That's what they told me, yes.

Q. From your examination of the area, you located several lateral and advancing fire spread indicators east and south of the tower. Do I have that right?

A. Yes.

Q. And you concluded that the fire spread from that location downslope from the tower, right?

A. Yes.

Q. The location where you concluded that the fire spread, PG&E does not own that land either, does it?

A. I'm not aware.

Q. Let me show you People's Exhibit 63.

Mr. Uboldi, I'm showing you what has previously been marked and admitted as People's Exhibit 63. This is a map of the footprint of the Kincade Fire, is that correct?

A. Yes.

Q. You testified about this on direct examination yesterday?

A. Yes.

Q. In the course of your investigation, did you look into whether PG&E owns any of the land in this footprint?

A. No.

MR. KRAVIS: May I have just a moment, your Honor?

THE COURT: You may.

MR. KRAVIS: Thank you, sir. I have no further questions.

THE COURT: Okay. Thank you very much.

Redirect?

MR. HENNING: Thank you.

///

REDIRECT EXAMINATION

BY MR. HENNING:

Q. Good morning again, Mr. Uboldi.

A. Good morning.

Q. About halfway there.

I just want to go over a few areas. One of -- I'm going to show you what's been marked as Defense Exhibit N. And I want to show you -- I want to clarify something.

You told us yesterday at length about how you observed the jumper configuration and the vertically-hanging insulator moving the night of the fire, of the Kincade Fire. And you also described -- and I just want to understand -- what else did you see moving that night?

A. May I show up on the --

Q. Sure.

MR. KRAVIS: Well, wait. I object. I asked questions about this exhibit, and he said he didn't recognize it, and it wasn't admitted.

THE COURT: So it hasn't been admitted at this point.

MR. HENNING: That's fine. Let me use a different exhibit. Let's look at People's 6.

BY MR. HENNING:

Q. So you described yesterday at length how you saw these jumpers, top, middle and bottom on the Lakeville side of the line swinging like a pendulum back and forth

that night. And I just want to make sure we're clear about it.

What else -- were you able to see tower 1 over 7 that night? The one tower south of 1 over 6?

A. Vaguely in this distance, yes.

Q. Okay. Were you able -- was that tower illuminated in any way?

A. No.

Q. Was it smoky at all that night?

A. It was smoky.

Q. Were you able to see -- what if any movement did you see as you looked down the line in the direction of 1 over 7?

A. What I saw was the three on the left, three wires on the left, three wires on the right, and they were blowing back and forth, in series, together.

Q. And I want to understand better, and I'm going to use People's 61 to help.

Could I borrow your pointer?

A. Yes.

Q. This is the Lakeville side?

A. Yes, it is.

Q. Do you see how there's actually two lines on the Lakeville side?

A. Yes.

Q. And then there's two parallel lines on the Fulton side?

A. Yes.

Q. And so when you're saying that you saw two lines moving back and forth in unison as you were looking down the line, could you clarify, did you mean the two on the Lakeville side or did you see all four?

A. So when I said the two, two sets of three. So when I say a set -- because they're connected together -- may I?

Q. Yes, please.

A. Because these are connected together we're considering this as one. This is one, this is one. So when I said two sets, what I was talking about is this set and this set were all going back and forth.

Q. Okay. So as you look down in the direction of 1 over 7 you saw both sides swinging?

A. Yes.

Q. Okay. Did you see any other -- were you able to see whether anything on tower 1 over 7 in terms of insulator jumper strings, any equipment, was also swinging?

A. Just the Lakeville side jumpers were going back and forth violently.

Q. I'm asking when you look in the direction of 1 over 7. Did you see anything on tower 1 over 7, or was that out of your vision?

A. That was out of my vision.

Q. Okay. And then focus on tower 1 over 6, the Fulton side. Describe if you're looking at those jumper configurations, top, middle and bottom, please describe

the movement that you observed, if any. I didn't mean to put words --

A. Very minimal.

Q. Very minimal?

A. Yeah. They were not -- compared to the Lakeville side, they were staying -- I've seen them blow just as much that way. I would say probably 12, 13 inches back and forth at the most.

Q. Okay. And so when you say minimal, is that in comparison?

A. In comparison to the Lakeville side on the left.

Q. You told us yesterday that during the course of your investigation you consulted with subject matter experts. Why did you do that?

A. Because I believed it was -- I believed I was getting -- I needed subject matter experts because it was out of my expertise and training.

Q. Did they assist you in your investigation?

A. Yes, they did.

Q. I want to ask you a couple questions about these inspection forms. And specifically, there's a climbing inspection and a drone inspection.

Before I show you them, do you know, are you able to speak to the quality of the inspections themselves?

A. No.

Q. Why can't you speak to the quality?

A. I've never seen one performed personally. I haven't had any training and/or descriptions given to me

about how it's done. Just a very vague. It's a climbing inspection. That's all I know. I don't know what is actually performed.

Q. Beyond reviewing the forms themselves on paper, was there any other information you were able to gather during your investigation regarding the inspections?

A. In regards to those inspections themselves?

Q. Yes.

A. No.

Q. Now I'm going to show you, this has been marked as Defense P for identification.

THE COURT: None of the defense exhibits have been admitted.

BY MR. HENNING:

Q. Showing you -- you're not going to be able to read this, so I'll just come up anyway.

Now, on this page, page 5 towards the top, does it have -- does it include -- the inspection form, does it include a code for what certain numbers represent?

A. Yes, it does have a condition code.

Q. Is there also a condition code that says N/A?

A. Yes.

Q. And what does this form say N/A means?

A. Not present.

Q. Not present. If you -- can I move your attention down on this page, it says, "jumpers in poor condition." What is the response there?

A. "N/A."

Q. Okay. So jumpers in poor condition not present? Is that how you interpret this --

A. That is how I interpret this, yeah. It would say not present.

Q. Okay. So what about beneath that, "jumper clearance issue"?

A. "N/A," not present.

Q. And above that, does N/A appear to be used as a substitute for the word no?

MR. KRAVIS: Objection.

THE COURT: Sustained. Lacks foundation.

BY MR. HENNING:

Q. Are there any entries on that page where the answer is no?

A. Yes.

Q. Can you count how many entries on this page have the answer no?

A. I believe there's nine.

Q. Okay. And you weren't there in May -- were you there in May of 2019 when PG&E did this drone inspection?

A. No.

Q. But were there jumpers present when you were there on October 23rd, 2019?

A. Yes.

Q. Can I turn you -- turn your attention to the next page? Do you see the section Hardware and Insulators?

A. I do.

Q. And is there a section where it says "Suspension/dead end conductor hardware, high end shoe assembly in poor condition"?

A. Yes, I do see that.

Q. What is the coding for that one?

A. N/A.

Q. At the top of that page does it show what N/A means?

A. It represents not present.

Q. Okay. And what's the entry below that one?

A. "Suspension dead end connectors, hardware cold ends in poor condition EG C hook."

Q. What does it say about for that?

A. "N/A."

Q. Not present?

A. Not present.

Q. Okay. Do you know what this -- did you see any -- do you know what this is referring to? The hardware, the hot end or the cold end conditions?

A. I haven't had any formal training in those documents, so no.

Q. Do you know what a C hook is?

A. I am, yes.

Q. Are you able to say whether -- this form says C hook not present. Are you able to say whether there were C hooks on that tower when you were there in October of 2019?

A. I believe we did, there was some C hooks on that.

Q. Okay.

THE COURT: Mr. Henning, it's slightly after noon.

MR. HENNING: I have one more question.

THE COURT: Go ahead.

MR. HENNING: Thank you.

BY MR. HENNING:

Q. It might take a bit of a response but just briefly I want to understand you on the Sawmill Fire.

Please explain to us why you believe that low cycle fatigue contributed to the cause of the Sawmill Fire.

MR. KRAVIS: Objection. Asked and answered.

THE COURT: Overruled. I'll hear the answer, but this is going to take longer than a minute. So we're going to take our recess. We'll come back at 1:30.

(Noon recess)

THE COURT: Good afternoon. Back on the record in People versus Pacific Gas and Electric.

Sir, I'll remind you, you are still under oath.

Mr. Henning.

MR. HENNING: Thank you.

BY MR. HENNING:

Q. I'm showing you what's been marked and received into evidence as People's 50. Do you remember this photo, Mr. Uboldi?

A. Yes, I do.

Q. And the question that I'd asked right before lunch is whether you can explain how you believe low cycle fatigue contributed to the Sawmill Fire. Would this exhibit, would this assist you in that explanation?

A. Yes, it would.

Q. Okay. Could you, perhaps using the pointer that's up there, explain to us using People's 50 how you believe low cycle fatigue contributed to the Sawmill Fire?

A. So prior to the incident, the wire ran -- the ground wire ran from here down. At an unknown point we believe that the staples had come out of the wire, which caused it to vibrate in the wind, creating the cycles, which eventually ended up causing a failure to the top wire here.

When the failure happened to the top wire here, this increased the cycle, the low cycle fatigue, and made the wire go back and forth in this manner, basically left to right, causing the failure, eventual failure of the wire at the bottom here where the low cycle fatigue occurred.

So the wire is going back and forth, left to right. As it's doing that it increases and it finally makes contact over here, striking the conductor, and then energizing back to the ground wire and then -- and energizing the hardware to the insulator and then to the guide wire that ran down the pole.

When it made contact here it created a shower of sparks that released and fell down to the bottom of the base of the pole and created the spot fires.

Additionally, sent electricity back down through the ground wire, down this guide wire to the anchor and created a fire at the base of the anchor.

Q. Okay. And so one of the things you said early on is that you believe the wire broke up top at an unknown point.

A. Yes.

Q. Do you mean an unknown point of time?

A. Correction. Unknown point of time.

Q. Okay. And could you -- maybe I was getting a little dizzy with the pointer. Would it be helpful to demonstrate maybe using your arm, with your elbow as the bottom point where that wire was connected?

MR. KRAVIS: Objection. It's been asked and answered several times.

THE COURT: I think I understand the movement he was describing using the pointer. Are you looking for a specific issue within that description?

MR. HENNING: Based upon the Court's understanding, I'm --

THE COURT: I'm satisfied I understand what the witness is attempting to describe.

MR. HENNING: Thank you, your Honor. I don't have any further questions.

THE COURT: Okay.

MR. KRAVIS: May I recross briefly on this point?

THE COURT: You may.

MR. KRAVIS: Thank you, your Honor.

RECROSS-EXAMINATION

BY MR. KRAVIS:

Q. Mr. Uboldi I just want to make sure I understand what you're saying about the Sawmill Fire. You are not saying the low cycle fatigue caused the staple to come out of the pole, are you?

A. Low cycle fatigue -- correct. Low cycle fatigue was not the reason the staple came out of the pole.

MR. KRAVIS: Thank you. I have no other questions.

THE COURT: May this witness be excused?

MR. HENNING: Yes, your Honor.

THE COURT: Okay, sir. Thank you very much for being here. You may step down.

People's next witness.

MR. HENNING: Your Honor, at this time the People would call Joseph Hemstock. And Mr. Hemstock has counsel and he requested maybe he could sit up --

THE COURT: He can sit in the audience.

MR. HENNING: Your Honor, this is Mr. Hemstock's counsel.

THE COURT: Good afternoon.

MR. BORNSTEIN: Good afternoon.

THE COURT: Good afternoon, sir.

THE WITNESS: Good afternoon. How are you doing?

THE COURT: I'm fine, thank you.

JOSEPH HEMSTOCK,

Called as a witness herein, who having been first duly sworn, was examined and interrogated as is hereinafter set forth:

THE CLERK: Please have a seat. Please state and spell your name for the record.

THE WITNESS: My name is Joseph Hemstock. J-O-S-E-P-H, H-E-M-S-T-O-C-K.

THE COURT: Thank you.

Mr. Henning.

MR. HENNING: Thank you.

Does the Court want to take an appearance from Mr. Hemstock's counsel?

THE COURT: Sure. You can announce your appearance for the record, if you like.

MR. BORNSTEIN: Thank you, your Honor. Jeff Bornstein from Rosen Bien Galvan and Grunfeld on behalf of Mr. Hemstock.

THE COURT: Thank you, Mr. Bornstein.

All right. You may inquire.

DIRECT EXAMINATION

BY MR. HENNING:

Q. Good afternoon, Mr. Hemstock.

A. Afternoon.

Q. And are you currently employed or are you

retired?
A. I'm retired.
Q. And where did you retire from?
A. Pacific Gas and Electric.
Q. And approximately when did you retire?
A. February 1st, 2009.
Q. Prior to coming into court today, did you enter into what's called a proffered agreement with my office?
A. I believe so. Is that that letter?
Q. Yes.
A. Yes.
Q. And can you just explain for the Court what your understanding of what that agreement was?
A. That if I was to lie, perjure or anything that you would use that information against me.
Q. And did your attorney, Mr. Bornstein, who's present in court, did he have the ability to answer any questions you had about that agreement?
A. Yes.
Q. And are you paying for Mr. Bornstein or is that PG&E?
MR. KRAVIS: Objection. Relevance.
THE COURT: Overruled. I'll hear it.
THE WITNESS: No, I'm not paying for anything.
BY MR. HENNING:
Q. Do you know who's paying for him?
A. Not specifically, but I would imagine it's PG&E. I don't know.

Q. You imagine it will be PG&E?
A. Excuse me?
Q. Did you say you imagine it would be PG&E?
A. I can make an assumption. That's all.
Q. Okay. When did you begin your career at PG&E?
A. December 16, 1971.
Q. And did you work for PG&E continuously from '71 until your retirement in '09?
A. Yes, I did.
Q. And we're going to talk about that in a moment, but after '09 have you returned? Have you worked for PG&E in a contract capacity?
A. Yes, I did.
Q. And explain that. How much time have you spent working in a contract capacity?
A. Well, I spent some time, a year or more at the Livermore Academy as an instructor teaching apprentice linemen, the craft. And then I spent a couple more years as a supervising inspector for the Victor office, where the inspectors that are watching the contractors reported to me.
Q. And are you still today working?
A. No, I quit doing that stuff a couple years back. I think 2019.
Q. Okay. And during that 10-year period from your retirement, the approximate 10-year period until 2019, were you working full time as a contract PG&E employee or a couple months a year?

A. No, pretty much full time.

Q. Okay. So other than your retirement status in 2009, did you work continuously from '71 until a couple years ago for PG&E?

A. Yes.

Q. Okay. If you could, please walk us through your career at PG&E in terms of your various job titles and assignments.

A. Well, in '71, when I hired on, I was working as a laborer out of Diablo Canyon building transmission, 500 KV transmission system.

Sometime in '72 maybe early '73 I was transferred to San Francisco on a general construction line crew, where I started my learning as an apprenticeship. I got my apprenticeship.

After so many years I ended up leaving the general construction and going to San Francisco division as a transfer as a groundman, and then I got my apprenticeship back in San Francisco, made journeyman, lineman.

I was a crew foreman in the San Francisco area, a troubleman, a troubleman supervisor, and then I accepted a job as a permanent supervisor in distribution in San Francisco.

And then I believe in '87, '88, they opened up a position in the new department, which was the electric transmission. And because I had the background I ended up going to them for in the transmission side of it. I

stayed there through '93. Came to the North Bay here, Santa Rosa, Petaluma -- actually, my area was from Sausalito to Orick.

Q. Where is that?

A. Just south of Crescent City.

So I had 2,200 something transmission lines I was responsible for. And I did that until '95, I guess it was -- or is it '97. I can't remember. And then I went to general office out of San Francisco as a senior specialist for transmission department.

And then in 2006, I went back as a first line supervisor. Which I forgot that part. In '93 I think is when I took the supervisor for transmission operations from Sausalito to Orick. And that was out of the Lakeville headquarters in Petaluma.

Q. First off, did we have an opportunity to meet over Zoom and have --

A. Yes.

Q. -- a meeting last week?

A. Yes, we did.

Q. So let's try to do a good job of not anticipating what we talked about then.

A. Okay.

Q. So I think you just pointed out, when you were in the 90s, from '93, you said approximately '95 to '97, what was that job title?

A. Electric transmission supervisor.

Q. Electric transmission supervisor.

And was that out of the Lakeville?

A. Lakeville headquarters, yes.

Q. When you were in that position, is that the time period when you were responsible for that 2,200 miles of transmission lines that you described?

A. Yes, that's correct.

Q. And then sometime around '95, '97 you went back to the main office?

A. I went, took a job as a specialist with general office, yes.

Q. And that job title was a transmission specialist?

A. Yes, senior transmission specialist.

Q. And then approximately at what point was it when you went back to Lakeville?

A. 2006.

Q. Was that in the same position?

A. As -- no, back to the transmission line supervisor position.

Q. That was back in the same position you had occupied back in the 90s?

A. That's correct.

Q. Up until your retirement in 2009, did you have any other changes of your job title?

A. No.

Q. Okay. And then you already described for us the contract, or some of the contract work that you did. Did any of that contract work after your retirement, was any of that out of the Lakeville substation?

A. No, the contract side of it was out of the office in Victor.

Q. I'm sorry. I didn't hear you.

A. The contract side of the work that I did after I retired was -- the headquarters for the contract group was out of Victor, which is over by Lodi.

Q. Okay. And when you were in this position, this transmission line supervisor position that you occupied twice, once in the 90s and again from 2006 to '09, in that position, can you describe for us what your job duties were?

A. Wow. Everything to do with transmission line. So initially I had five transmission troubleman, slash, inspector that reported to me between Eureka, Mendocino, northern Sonoma County, Napa County and then Marin County. I had guys in each areas. They were patrol and inspect.

And our headquarters is again Lakeville, where I had clerical duties. You know, I had clerks and stuff down there. So essentially in those days my responsibility was to make sure that we were meeting the standards and guidelines set by PG&E for inspecting and patrolling all the circuits in the area that I was responsible for, and then reacting properly to whatever problems that were reported to me.

Q. You said a few terms, and I'm hoping that I can ask you to define them for us, because you're the first PG&E employee or former employee to testify during this

hearing.

The first one is -- or the first three I've heard you say groundman, lineman and troubleman. Could you define those three terms for us?

A. A groundman is an entry position. Most people hire right off the street. They're just -- that's the -- they're the ones that work and help assist the lineman and apprentice lineman that are up on the poles or towers, to set up stuff and send it up to them. Essentially it's a learning position.

Apprentice lineman, is that one of the definitions you like?

Q. Just a lineman.

A. So then once you make journeyman, and that's a state-recognized position. It says you met all the criteria for you to become a journeyman, which is minimum of three years of school along with your on-site job training.

And then I think you asked about troublemen. And the troublemen is essentially a first responder. If there's -- your lights go out at your house, and a lot of times the troublemen are usually the first one to respond to find out why. If there's outages, he responds to the outages. He does the switching at direction of the operations center.

Essentially he's supposed to be knowledgeable enough to make sure he can correct problems that he may find that customers have or the system has.

Q. And so in your -- I know you're not going to let me, but don't let me put words in your mouth.

A. I won't.

Q. Is a troubleman considered to have seniority over a lineman?

A. No.

Q. Okay. Totally separate position?

A. Yeah. Yes.

Q. Okay. And separate job responsibilities?

A. Yes.

Q. And you talked about how you supervised a group of employees that did patrols. And were those troublemen?

A. Yes. In the transmission department, we called them troublemen. That's a pay rate also. Even though they weren't responding to customer homes and stuff that you would normally associate with a troubleman with PG&E. These were specialized individuals.

Q. Okay. And did your -- when you were there in the 90s, if you remember, approximately how many people did you supervise?

A. Initially five, and then I was allowed to put a crew on and I was told I could have four crew members. A crew foreman, two -- three linemen and a truck driver. So four. Two linemen and a truck driver.

Q. And when you were back there in 2006 to '09, about how many people did you supervise?

A. Well, they changed my boundaries, so I only went

to Laytonville. Just to Laytonville. So I had three troubleman, slash, inspectors and a six-man crew.

Q. Okay. And are you working with the same six-man crew for the most part day in and day out during this time period, '06 to '09?

A. There's some fluctuation, but yeah. A little bit, but not very many. People would come and go but not very often, because in transmission, when you took a job in there you took a five-year commitment.

Q. Okay. And could you describe for us your familiarity with the Geysers, the area of the Geysers?

A. I'm pretty familiar with it. I mean...

Q. Why is it, in terms of your time at PG&E, why is it that you're familiar with the Geysers?

A. Well, I went up there originally in '72 as apprentice lineman, constructing transmission line. That was my first exposure. When I came back into transmission, you know, years later, in '93, that was one of the areas that I was a supervisor and have responsibility, included the Geysers area.

Q. Okay. And I think you mentioned that your geographic zone, looks like maybe it shank a little bit when you went back to that position in '06?

A. Yeah. What they decided is having one supervisor in a crew for that 2,000 mile, from here all the way to above Eureka was a little bit, so they put a crew in Eureka and they cut my area to Laytonville.

Q. Fair to say, though, that when you're back there

in '06 to '09 that your area still covered the Geysers?

A. Oh yeah, yes.

Q. Was your area approximately cut in half, or do you remember how large your area was in terms of transmission miles?

A. I don't remember how many miles it was after that.

Q. Okay. And are you able -- well, would it be fair to say, have you spent a considerable amount of time during your career at PG&E up in the Geysers?

A. I don't know if I would use the word considerable, no.

Q. Okay. If you could -- maybe you can't, but would you be able to estimate how many times, how many days you went up to the Geysers?

A. As a supervisor? Or --

Q. Just throughout your --

A. Throughout my career, no, I could not give you that number.

Q. Is that because that's a large number?

A. Well, I was up there, so -- I don't even recall exactly in '72 how many months I was up there. Somehow I was thinking maybe towards the wintertime. Once the winter kicked in it was pretty bad.

Q. Okay.

A. And then we got chased out.

So it was through the summer, I do recall that, into the first part of winter in '72. So I don't know

how many days that is.

And then in '93 when I became the supervisor of the area, I was there periodically. But I wouldn't say -- you know, maybe once a month would not -- I wouldn't even say I did it once a month. I went up there when I had to.

Q. Okay. Are you familiar with the fact that there are power plants up in the Geysers?

A. Yes.

Q. If you had to, would you be able to estimate approximately how many power plants there are, at least as of your retirement in '09?

A. I don't recall them all. There are unit -- numbered units, you know, 9-10. There was a unit 1, but that went away years and years ago. I know there's Bottle Rock, there's NCPA units 1 and 2. But all of them, no, I don't recall them all.

Q. More than ten?

A. You know, I'm not real sure. I'm not sure.

Q. Are you able to define the difference between a transmission line and a distribution line?

A. Yes, I could tell you.

Q. Okay. Could you tell us?

A. Well, for PG&E in the state of California, 60 KV and above is considered transmission. 60,000 and above. In this state. PG&E has lines 60,000 to 500,000.

Q. And lower than that would be a distribution line?

A. Yes, distribution, maximum voltage and

distribution is 21 KV. And they have 12, 17 in certain areas. Down in Fresno it's got 17 and 4 KV.

Q. I'm sorry. What was the last one?

A. 4 KV. 4,000.

Q. As far as you know, at least as of the time you retired, are you aware of any voltages that are between 21 and 60?

A. Yes, there is one. 34 KB.

Q. 34?

A. But that's for BART, and that has nothing to do with the transmission line side. That's only the BART system.

Q. That's for BART?

A. BART.

Q. Other than the voltage levels, are there any other differences in terms of the purposes of a transmission line versus a distribution line?

A. Yes. Transmission is to move bulk power around the system. Or from a power plant, let's say, to the grid. I mean I can't come up with a bunch of technical terms for it, but essentially it's a transmission to move power longer distances. Then distribution is for residential and local.

THE COURT: Did you say bulk?

THE WITNESS: Yeah, bulk power.

BY MR. HENNING:

Q. Have you ever seen a single-family residence connected to a transmission line?

A. No.
Q. And then similarly, have you ever seen a power plant connected -- well, have you ever seen a power plant deliver power to a substation via a distribution line?
A. Not off the top of my head. It's not that it's not impossible.
Q. Now, you mentioned that one of the power plants is called 9 and 10.
A. Yes.
Q. You're familiar with that plant?
A. Yes, I am.
Q. And specifically, did we send you some documents to review related to some work that your crew performed near plant 9 and 10?
A. Yes.
Q. I'm going to show you -- this is an exhibit that's already been received in evidence, and it's marked People's 60. Do you recognize whether any part of plant 9 and 10 is depicted in People's 60?
A. Any part of the plant?
Q. Yes.
A. Yes. The structure to the right side all belongs to CalPine, and that's their takeoff structure.
Q. Sir, would you mind just using this pointer. What's the takeoff structure that you're identifying?
A. Right -- this is CalPine property and this is where your generated voltage would come out and enter

the system.

Q. Okay. And you can take a seat.

Can you approximate for us -- well, let me ask you this. Do you recognize that tower that's to the left of the takeoff structure that's in the center?

A. Yes.

Q. Okay. And do you know the identification number of that tower?

A. For the circuit we're talking about is 0 over 1.

Q. Okay. And the circuit that we're talking about, are there two circuits on that tower?

A. Yes, there are.

Q. And when you're using the term circuit in that context, are you referring to a transmission line?

A. Correct.

Q. Do you recall the names of the two circuits or transmission lines that are on this tower?

A. It's the Geysers 9 Lakeville, which is on this side here.

Q. Okay.

A. And the other side of the tower has the Geyser -- I can't remember. Geysers something Fulton. I can't remember.

Q. If I said Geysers 12 Fulton --

A. Yeah, that may be it. I don't recall, but I know that goes to Fulton.

Q. And when you say that goes to Fulton, do you mean it goes down to the Fulton substation in Santa Rosa?

A. Correct.

Q. And we sent you some documents related to work that was performed in 2006. Do you know, had you been to this tower or had you done work on this tower prior to 2006?

A. Yes.

Q. Describe for us why it was -- describe your experience with this tower.

A. It was a constant source of entertainment. It was -- because of its location to this unit here over on the side, what you don't see is the cooling towers for the Geysers unit. And those cooling towers are constantly spewing steam or, you know, vapors or whatever and what are contained within that. That would always go out over the tower. The prevailing winds always pushed it towards that tower. And obviously there -- originally this was all PG&E equipment, obviously. But it would cause problems with arcing. They would get operators up there -- even back when it was PG&E's -- would call up. There were people who would call me and say, hey, 01, that's lit up like a Christmas tree.

Q. You said lit up like a Christmas tree?

A. Yes.

Q. What time in your career was it that you're receiving these calls about this tower?

A. '93, '4, about '95, somewhere in those three, four years.

Q. So during that time period when you were a transmission line supervisor?

A. Right.

Q. And are you able to approximate how often, how frequent it was that you received these phone calls?

A. Oh, maybe once or twice a year at least.

Q. Okay. And describe what would happen. How would you fix that problem?

A. Well, what I ended up doing is -- because of the level of contamination that was coming out of the cooling tower, what I ended up doing is replacing the insulators and then covering the insulators with silicone grease.

Q. And we're going to talk about that, but just to clarify, lit up like a Christmas tree. What do you mean by that?

A. Well, the contamination would allow current flow, and you could see arcing from the bottom to the top of the string. It was usually on the suspension insulators, which are the ones -- these ones here would be the ones that would have the worst.

Q. Let me see -- maybe this will be better, but maybe not. But showing you -- are you able to orient yourself and recognize what's depicted in People's 61?

A. Yes.

Q. And what are we looking at in People's 61?

A. That's that same tower, just from a different view. This being the direction where the takeoff

structure was for CalPine.

Q. And maybe it's a little clearer, but can you point out on People's 61 where the arcing on the insulators would occur?

A. Mostly on this right here. These here would arc, and the arcing would run up but it wouldn't jump over to the steel and relay the line. It would just keep running up and down.

Q. And top, middle, bottom, are those sometimes referred to as phases?

A. Correct.

Q. And you pointed at the top phase and the middle phase. I just want to understand you. Does that mean it didn't happen on the bottom phase?

A. No, all three strings would do that.

Q. Okay. And did you ever have that problem on any of the other insulators, insulator strings depicted in People's 61?

A. No, not to the extent that I had -- it would do a little bit but not to the extent where I would worry about the circuit.

Q. So it didn't happen on either -- so you don't recall this happening on the Fulton side of the line of the tower?

A. Well, normally there is no suspension. There's no suspension insulators on this side. If you notice, they just, the jump just goes straight across.

Q. So when you say suspension insulators, you're

referring to these vertically hanging --

A. Right.

Q. Okay. And how would -- I mean I understand we're going to talk about your solutions in terms of replacing the insulators and coating them with grease, but you're saying there's arcing. How long had the arcing occurred?

A. You mean from the time they called me until it stopped?

Q. Yes.

A. Oh, it would stop probably by sunup. Once the moisture, the moisture content in the air changed.

Q. So it would be arcing throughout the night until weather conditions changed in the morning?

A. Yeah. And I have guy there monitoring.

Q. Someone would be there and they would stay there to make sure there's no issue?

A. Well, yeah. If the arcing got to where it was a solid line of arcing, a solid all the way up, then if that happened he would have called me. And probably would have dumped the line and went up there and wipe the insulators or clean them or something.

Q. What do you mean dump the line?

A. Call up the operations center and ask them to deenergize the line.

Q. But did you ever have to do that?

A. No.

Q. Okay. And how would -- I mean, how would your

crew even become aware that this was happening?
A. The crew?
Q. Well, in other words --
A. I don't understand.
Q. What alert would go out so that someone would know it's even arcing?
A. Just the visual from people that work at the Geysers, you know, prior to CalPine and PG&E folks. There's people on 24 hours. If they saw it, they would notify their folk at the Geysers. And then if it continued they'd get ahold of the Fulton operations center, and they would notify me.
Q. And you mentioned something a couple times. I want to make clear so that it's clear to the Court.
At some point in time was that power plant 9 and 10 owned and operated by PG&E?
A. Yes.
Q. When you were the transmission line supervisor in the 90s, do you recall whether at that point it was still owned and operated by PG&E?
A. Yes.
Q. Then at some point --
THE COURT: I'm sorry, yes it was or yes you recall?
THE WITNESS: Yes, I recall. Yes, it was PG&E. And I don't remember the year. I don't remember the year of the POR.
BY MR. HENNING:

Q. Okay. And I'm sorry, what do you mean by POR?

A. It's when -- I don't know what the destination of that is. At the time we were looking at separating transmission from the utility to the corporate.

Q. Okay. When you went back up -- excuse me, went back into the position in 2006 as transmission line supervisor, do you know who at that point in time owned unit 9 and 10?

A. Yes, CalPine.

Q. And as far as you know, at some point in time PG&E sold 9 and 10 to CalPine?

A. Yes. I don't remember the dates, but yes.

Q. Okay. I just wanted to make clear, because I don't know if it was clear to the Court why PG&E owned 9 and 10 for some period of time.

So this arcing would be happening. We're back in the 90s. And someone who's up there working maybe at 9 and 10, or driving down the road, they would see this and alert you, or alert your crew?

A. They would alert their folks at the Geysers, and then the Geysers supervisors for substation -- you know, that's the term. I say the substation folks -- if they thought it was critical or having a problem, they would notify the operations center at Fulton, and they would notify me.

Q. Did you have an opinion at the time as to why this was only affecting these vertical support insulators on the Lakeville side as opposed to the other

insulators?

A. I knew why.

Q. Could you explain that?

A. At the time, I don't remember the period of time it was, but PG&E was injecting iron into the cooling water system. And in our meetings with the Geysers folks in Santa Rosa here, I asked them to make sure they notify me prior to injecting iron. Obviously iron and electricity, you don't really want them palling around. So they agreed that they would let me know. Sometimes they did and sometimes they didn't.

But when the iron was injected, the steam coming off, it was a higher level of contamination than we were used to seeing.

Q. In terms of higher level of what you were used to seeing, are you saying that just generally speaking there was contamination there?

A. Of course. I mean look at the tower. You've seen that tower. There's no galvanizing left.

Q. Is that based upon the proximity of the tower to the plant?

A. Correct.

Q. Back in the 90s when you're there, did the tower look like that, or was it connected in some way to unit 9 and 10?

A. The connection points to CalPine or PG&E, whatever, came from this end of the arm over -- had a string of insulators like this, would have a piece of

hardware like this. You stick it out, string of insulators, a conductor in a shoe, a clamp like you see here, and it would go over to their structure with the same thing on the other end. And the jumper -- the wire would come through the insulators and down and make connection point to these NEMA pads.

Q. If I showed you a picture, would you be able to draw for us how it was connected back in the 90s?

A. I could. But what I can't tell you, I don't recall, is did the top go to the left, top go -- you know, I can't remember that part.

Q. You and I talked about this earlier. I'm going to show you what's been marked People's 91.

Showing you what's been marked as People's 91. I think, are you saying that you could show us, draw how it was connected, but you're not sure which wire connected to which insulator over here?

A. Yes. As you can see on the takeoff structure, there's three positions for wire. These heavier box steel. One, two and three. I just don't recall which -- this one went to over here, or this one. I don't recall that.

Q. But you do recall how it looked in the vicinity of the tower?

A. Yes. Yes. Just, yes, there's a wire.

Q. So take your time. There's a few sharpies up here.

A. Do you want all three of them drawn or just one

for reference?

Q. Why don't we stick with one for reference. And if you could --

A. Which one do you want? Top, middle --

Q. Why don't you do the top. There's a little more room. And if you can, can you use a different color for the insulator, if there's an insulator?

A. That's what I was going to do.

THE COURT: Just for the record, the witness is marking up which exhibit?

MR. HENNING: People's 90. It has not yet been admitted.

THE WITNESS: They're -- the length isn't the right distance.

MR. BORNSTEIN: I have no idea, your Honor, what they just whispered to each other.

MR. HENNING: I asked him if red was the insulator. I shouldn't have done that.

BY MR. HENNING:

Q. Did I whisper to you, "is red the insulator?"

A. Yes, you asked me if red was the insulator, and I affirmed that.

Q. So I'm showing you People's 91. Does this bear the blue and red -- is that what you just drew?

A. Correct, yes.

Q. And does this represent how the connection appeared to be, approximately, when you were there in the 90s?

A. Yes.
Q. Okay. And just for the Court's reference, the strings of insulators, are those individual stacking insulators?
A. Yes. They're a certain number, depending on voltage and location, as far as altitude and whatnot. So there could be 17 -- say in the dead end string, which is the horizontal, called dead end, and vertical. So the vertical, I don't remember exactly how many insulators. Probably you could count them, I guess.
Q. And I just -- this is just to the best of your recollection. The insulators that would have been up on the line, it would have been the number of insulators that was required for the voltage?
A. Correct. And the location.
Q. Okay. Now moving -- so we're still back in the 90s, you said you're getting these calls, I think you said once or twice a year at least?
A. At least, yeah.
Q. Could be more than that?
A. I don't recall a lot of calls, though. I mean I already knew the problem, and we were working on a solution. A long-term solutions instead of a wash or something like that. But I wouldn't say -- I would say through the winter, maybe two or three times.
Q. Can you explain to us how you wash insulators?
A. There's several methods. The old style one that I was familiar with, because it was a long time ago, is

you would send an apprentice lineman, de-energize the line, ground the line. You would send guys up there and they would take rags and Scotch-Brite and clean the insulators by hand. That was a long time ago, which we did quite a bit of.

Then later on we came up, we had to wash -- a way to wash them while they were still energized. In the 90s we ended up with a vehicle that had a boom that would extend out 150 feet, and at the end it has a nozzle that's totally articulating and a huge tank of water, and then we would be able to wash insulators while the line is energized via that truck.

And then after that we came upon heliwash and then we started using helicopters to wash the line.

Q. And then the solution you came up with was to replace the insulators?

A. Yes. One of the things we were looking to do was replace all the insulators there with a polymer insulator, which is not a ceramic insulator. The insulators that are up there right now in that picture are all ceramic. We were looking at polymers, because essentially a polymer absorbs the contamination. And the problem with polymers is they didn't have in those days a good track record, and we weren't going to take the chance of losing that circuit or any circuit due to insulator failure, which is -- you don't want to have that.

So what I proposed that we do is we just use

silicone grease on the insulators every couple of years, depending on the contamination level when we observe it. And you could see, and I don't know if now you can see it, but the insulators -- the silicone grease, because we weren't putting it on with a machine, it was by hand, it was fairly thick. And at the end of a cycle, maybe two years, the contamination was fairly significant. Where instead of trying to clean it off, we just dropped the insulators off, put new ones and put some more silicone. And that worked like a charm.

Q. So the coating of silicone, the purpose was to absorb contamination coming off of 9 and 10?

A. Correct. Correct.

Q. And when you say worked like a charm it, it prevented this arcing from happening?

A. Yes, that's correct.

Q. And when you say replace every two years, do you mean the silicone coating?

A. No. It was too hard to remove the silicone off of there, so it wasn't worth the effort. We would just replace the whole string of insulators.

Q. And there's a number of insulator strings on this tower. Which ones would you replace?

A. All of them.

Q. Is that all of them on both circuits?

A. Yes.

Q. Okay. And so I'm counting. I think there would be 9 insulator strings on the Lakeville side?

A. Two, four, six, seven, eight, nine, and then on the other side, two, four, six, eight, ten, 12.

Q. So those would all get changed every two years?

A. It is my recollection is that's what I put in for, yeah.

Q. When you say you put in for, could you describe what you did?

A. I would get the operations center, the coordinators, and explain what I wanted to accomplish in the timeframe so that they could look out those two years and longer and look at the system.

Of course they worked directly with the system operators, at the time was in San Francisco, and then also with the ISO.

Q. Okay. And ISO, is that a state agency?

A. That's a state agency, yes.

Q. You left approximately '95 to '97, somewhere in there, from that position. Do you remember how many times you had to change the insulators before you left the position?

A. No, I don't. I don't remember exactly.

Q. At least once?

A. Yeah, at least once, probably twice while I was there in that time period.

Q. You came back to the same position in 2006.

A. Yes.

Q. Do you know whether those insulators were changed during that time period?

A. I don't recall even going -- trying to go back through any records. I don't recall doing that at all.

Q. Okay. Now let's talk about the work that you were there to do in 2006.

Do you have -- prior to reviewing the documents that were sent to you, do you have an independent recollection of this work?

A. Oh, yeah.

Q. And what was it about this work that you had an independent recollection?

A. Because of that tower. I mean that unit 9-10, I knew the tower, I knew that -- through the e-mails, obviously, that we were -- that CalPine had wanted us to drop the conductor out.

Q. And when you say they wanted you to drop the conductor out, could you please point on --

A. This?

Q. It's actually 91. I've been calling it 90. I'm sorry.

A. What's that? I'm sorry.

Q. I was just correcting the record.

A. These drops from here to here to here, it's all owned by PG&E. That is PG&E's facility, including these insulators. These insulators belong to CalPine. So when they called, they wanted to drop this out. Actually all three of them. That was the job that they had asked us to do.

Q. Okay. I'm going to show you a series of

documents, starting with what's been marked People's 72, which is a two-page document with an e-mail chain that's at the top dated April 4, 2006.

Let me just bring these up to you. I'm not sure you'll be able to read them.

A. I already know what it says, so whatever you want to do.

Q. So starting with what's been marked People's 72, do you recall reviewing this e-mail chain?

A. No, I don't recall it.

Q. Okay.

A. I don't recall reviewing that today. And this was 7:43 in the morning on 4-20, 2006. No, I don't recall.

Q. So this is an e-mail chain from almost 16 years ago.

A. Correct.

Q. And at the top, is that an e-mail sent from you?

A. Yes.

Q. And I know that you're saying you don't have an independent recollection. Do you have any reason to question whether that was you who sent this e-mail?

A. No, no doubt that I sent it.

Q. Okay. No doubt that you sent it.

And it looks like at the bottom of this page it starts with an e-mail that -- it wasn't sent to you initially, but eventually it was forwarded to you?

A. I think it was attached to this. That's the only

reason I would have saw this part, yeah.

Q. Okay. And does that e-mail reference the work that CalPine wants you to do, that you just described?

A. Dropping the leads from the first tower coming out of the Geysers 9 and 10. The scope of work.

Yes, essentially that's asking us can you do this while you're there doing those insulators.

MR. HENNING: Okay. And your Honor, can you hear the witness?

THE COURT: I can hear, thank you.

BY MR. HENNING:

Q. And you just pointed out on the last exhibit you were dropping the leads, now removing that part of the line?

A. Yes.

Q. Is there anything about this e-mail that doesn't make sense to you in terms of the scope of the work?

MR. KRAVIS: I'm sorry. Is this being moved into evidence? Because the witness is just reading from the document.

MR. HENNING: Yes. I would be moving this into evidence.

MR. KRAVIS: No objection.

THE COURT: It will be received.

(Whereupon, People's Exhibit 72 received in evidence)

MR. HENNING: Thank you.

BY MR. HENNING:

Q. Is there on People's 72, this e-mail chain, is there anything there that is confusing to you, whether it's the scope of the work described or anything like that?

A. No. I mean from this gentleman at CalPine who sent it to Kim Gutierrez, I'm not sure this information about these switches, additionally this, and worrying about potential line relay action due to -- that has nothing to do with what I understand.

This from Kenny Gutierrez, would it be possible to drop the leads out there, out at 9 and 10, mothball it during the coming clearance.

Q. So --

A. And I said yes.

Q. So the first e-mail is sent from CalPine to Ken Gutierrez?

A. Yes.

Q. Who's Ken Gutierrez?

A. He was an operator at Fulton operations center.

Q. At PG&E's center?

A. Yes.

Q. And that first e-mail makes reference to a number of items that CalPine is requesting?

A. Maybe. I don't know that part.

Q. Okay. But you do understand when Kenny is forwarding it to you, asking you can you do this part of the work?

A. Yes, I understand what he wanted from me, yes.

Q. And what did Kenny want you to do?
A. During this time period that we were doing this other work, Kenny dropped the line out. Included in the work.
Q. I'm going to show you what's marked People's 73.
MR. KRAVIS: I'm not agreeing to the admission of that one yet.
MR. HENNING: Okay.
BY MR. HENNING:
Q. Well, do you recognize what's depicted in People's 73?
A. Yes, I've seen this before.
Q. Okay. What is this document? Explain it.
A. Electric line notification.
Q. And what is an electric line notification?
A. It's a way to identify work or anomalies or other -- it's something that may not be correct and how to shape the work and get it in the plant system.
Q. And are there entries on this document, People's 73, specific to a type of job?
A. It says that -- yes. Replace dead end insulators --
THE COURT: Wait a minute. Before he reads from the document, it hasn't yet been admitted into evidence.
THE WITNESS: Sorry. I'll stop.
BY MR. HENNING:
Q. Were you part of the creation of this document?

A. My headquarters was, yes.
Q. And was this document -- were you -- your headquarters was part of it. What about you individually?
A. Yeah, I'm the one who initiated this, yes.
Q. So you initiated the creation of this electric line notification?
A. Correct.
Q. And is this something that you would have done -- is this document date stamped?
A. Date reported, date desired start. Yes.
Q. Is that contemporaneous with when you would have initiated this?
A. What?
Q. Would you -- is this document created or is this put in the system when you entered it?
A. What I would do typically is fill out a version of this on a piece of paper, pen and pencil. Give it to the clerk, and say, Hey, I need a notification. Here's the details. And then Jackie Good, who was the clerk who did it, would enter this into the SAP, or the system used at the time -- I don't know what they're using now -- to create this document. And within the system it says, Hey, there's work out there on this line at this time, on and on.
Q. Okay. And so this document is a typed-in version of what you would direct to your clerk, Jackie Good, to create?

A. She would create this in the system, yes.

MR. HENNING: I would ask to move People's 73 into evidence.

MR. KRAVIS: Objection. Lack of foundation.

THE COURT: Sustained.

MR. HENNING: Okay.

BY MR. HENNING:

Q. Let's look at People's 74. Do you recognize what's depicted in People's 74?

A. Yes.

Q. Focus on the top. Is this an e-mail that you received from Jim Bowden?

A. It was sent to Jackie, my clerk, to affirm how we would account for the insulator removal on that conductor that were being removed. But I'm cc'd, so yes, I did read it.

Q. Okay. Who's Jim Bowden?

A. He's a senior maintenance construction engineer. He would be the one to make sure all the dollars and accounts are taken out of the right places for that particular type of work.

Q. Okay. And was he a type of engineer that would consult with you before you did construction work?

A. No.

Q. Okay. He would -- his job duties were focused on budgetary issues?

A. Pretty much.

Q. Okay. And do you recall working, though, with

Jim Bowden?

A. For many years.

Q. Okay. And this is an e-mail that you were cc'd on that you received from Jim Bowden?

A. Yes.

MR. HENNING: I would ask to move People's 74 into evidence.

MR. KRAVIS: Objection. Lack of foundation, hearsay.

MR. HENNING: It's an admission. It's made by PG&E. An e-mail from a PG&E employee.

MR. KRAVIS: I don't think there's foundation for that either.

MR. HENNING: He testified he's an MFS engineer at PG&E.

MR. KRAVIS: Every written statement of every PG&E employee is not an admission of a party opponent for these purposes. That's not right.

THE COURT: That's an interesting issue I haven't considered. Do you want to move on and we can come back to this?

MR. HENNING: Sure.

BY MR. HENNING:

Q. Who was on your crew that you worked with back in 2006?

A. Steve Cincera was the crew foreman. I had a lineman, Wrenn Rittenhouse. I had a lineman -- who else was there? I don't know if Chad Watts was on my crew at

that time. Tim Ritchie was a journeyman lineman. Ryan Hessong (phonetic) was an apprentice at that time still. Ken Sullivan, equipment operator. And I think there was another guy that I had. I don't know why I don't recall his name. Joe Pacucci (phonetic). I think he was also around at that time. Whether they were on that job site or not I don't recall.

Q. Do you recall, did you go up to the tower in May in 2006 to do this work?

A. The day it was done?

Q. Yes.

A. I don't recall.

Q. Do you recall whether it was in 2006?

A. Yes, I went up a couple days prior to the job with Steve and some other folks.

Q. With Steve?

A. With Steve Cincera and I, we went up there, and there was some other folks that went up there with us and we looked at the job.

Q. Okay. And you mentioned that you didn't consult with Jim Bowden. Is this the type of work that you consulted with an engineer on?

A. No.

Q. And you went up there. About how long in your recollection did the work take?

A. I wasn't there, but which part of the work? The dropping the line out or the insulator replacement?

Q. Both.

A. I don't know. You'll have to ask Steve. I don't remember.
Q. I mean --
A. It's a day's -- it's a good day's work.
Q. It's not a month long job?
A. No, no, no.
Q. Okay.
A. That's just for that one circuit, though. Let's be clear about that. Just the one side.
MR. HENNING: Okay. And I'm going to ask -- I would ask to move People's 91 into evidence.
MR. KRAVIS: No objection.
THE COURT: It will be received.
(Whereupon, People's Exhibit 91 received in evidence)
BY MR. HENNING:
Q. Now, you've drawn on this earlier. You depicted how it was connected in the 1990s. Describe the work that you and your crew did in 2006.
A. Well, the job task was to remove three of those taps. Three of these. One from here, one from here and one from here. Remove those and replace and re-silicone these insulators on this side of the tower.
Q. And the way that -- let me show you again People's 61.
Actually, People's 60. Does People's 60, in terms of the configurations of the jumpers on the Lakeville side of the tower, does that depict -- just

focus on the middle and bottom phases. Do those depict what I would call the final product of your work back in 2006?

A. Like I said, I wasn't there when they completed the work, but I would -- if I was -- I don't know. That was something that Steve Cincera can help you with. But I do believe that was the final -- when we left that's what it looked like.

Q. So when you left that's what it looked like?

A. Correct.

Q. Okay. Focused on -- we're not talking about the top phase, just the middle phase and the bottom phase.

A. Right. The only thing that I'm not sure of is this droop here and here. I don't believe that it would be drooping like that. It would have probably been up more.

Q. Okay. And what would you have done if it had been drooping like that?

A. Well, I mean, when we -- the jumpers were still there, that jumper goes kind of up a little bit. So when you remove that little bit of weight, it's probably they droop down, but the distance required by the state from here to here is a minimum distance you can be -- don't quote me, but it was 54 inches.

Q. Okay.

MR. HENNING: Your Honor, I'd ask to move People's 92, 93 and 94 into evidence.

MR. KRAVIS: No objection.

THE COURT: They'll be received.

(Whereupon, People's Exhibits 92, 93 and 94 received in evidence)

BY MR. HENNING:

Q. Before I put these up, could you take a moment and look at 92, 93 and 94?

And are you able to tell us -- take a moment to orient yourself.

Well, first off, do you recognize what's depicted here?

A. I think it's a picture of the same thing. Just three different views.

Q. Okay. Does this appear to be depictions of the Lakeville side of the tower that's depicted in People's 60?

A. Yes. Yes.

Q. And you've mentioned that some of these -- there's a droop on the middle and bottom phases. Other than droops that might be depicted in these photos, do these photos depict the tower as you guys left it in 2006?

A. I would say yes.

Q. Okay. If you look -- is there anything that you can orient yourself in the background of what looks like maybe a top phase versus a bottom phase?

A. Well, the only thing that I see a difference in each one is the length. This is -- these tails sticking out, I'm not sure -- this one is longer. This is

obviously -- would be probably the middle phase right here, but I don't recall.

Q. Okay. And looking at People's 92 and 93, do each of those depict that there's some crossarm beneath the jumper cables?

A. This ones do, yes.

Q. Based upon that do you have an opinion about which phase People's 94 might be?

A. This is the bottom phase.

Q. So People's 94 appears to be the bottom phase?

A. Right. There's nothing underneath. This is the top phase.

Q. And you're pointing at People's 92?

A. 92. This looks like the top phase here.

Q. Okay. And looking at People's 60 in terms of the ends of these jumpers, does that also correspond to the ends of the jumpers depicted --

A. Yes. You can still see the NEMA pads, yes. Here, here and here.

Q. So now you've had a moment to orient yourself and review, do you believe that People's 94 shows the bottom phase of the Lakeville side of this tower?

A. I don't see anything underneath it. I'll go with you. I don't see any other arms underneath it, so let's say I would think that would be the bottom.

Q. Okay. And do you believe that People's 92 depicts the top phase?

A. You know, I don't see the difference in these

two, really.

Q. Okay. Well, let's move on. I'll take those.

Would it be fair to say People's 92, 93 and 94 depict the Lakeville side of the tower when you guys left in 2006, with the exception that you couldn't tell the difference between the top and middle phases?

A. Yes.

Q. Okay. I'm going to show you what's been marked as People's 93. You looked at -- oh. Thank you.

You talked about earlier when you were looking at the exhibit that you just placed on the ground a droopiness on the jumper configuration.

Looking at People's 93, do you see that droopiness that you were referring to earlier?

A. Yes.

Q. Can you use that pointer to point out the droopiness that you saw?

A. From the plate, and it's hanging down here (indicating).

Q. Okay. And is it your testimony that would not appear like that when you guys left the job site in 2006?

MR. KRAVIS: Objection. Leading. Lack of foundation also.

THE COURT: Sustained.

BY MR. HENNING:

Q. Did it appear like that, the end of that jumper configuration, when you left the job site in 2006?

MR. KRAVIS: Objection. Lack of foundation. He doesn't remember if he was there.

MR. HENNING: He earlier said it didn't look like this when he left.

THE WITNESS: I didn't say that. I wasn't there.

THE COURT: Your objection is saying he wasn't there, so he can't answer the question.

MR. KRAVIS: That he doesn't remember if he was there or not, I think was the testimony.

THE COURT: I don't recall him saying that. I thought he said he wasn't there when he finished the job, but he left at some point, so whatever observations at the time that he left would be his observations.

MR. HENNING: I'll move on.

THE COURT: All right.

BY MR. HENNING:

Q. Let's just clear this up. When were you there in 2006 when the work was being performed?

A. When the work was being performed. That assumes I'm there. I said I was there a day or two ahead of the job. I don't recall ever being there during the job, and I can't tell you when I was there after the job was completed. I don't recall.

Q. So you don't have an independent recollection of being there when the crew was dropping the leads off the tower?

A. No, I do not.

Q. Okay. And you also don't have a recollection of being there when the insulators were replaced?

MR. KRAVIS: Objection. Leading.

THE COURT: Sustained.

BY MR. HENNING:

Q. Do you have a recollection of being there at any point when the insulators were being replaced?

A. I do not, no.

Q. You do not?

A. No, I don't remember being there during the insulator replacement phase.

Q. Other than being up there a few days beforehand with Mr. Cincera, what are your recollections of being there at the job site in 2006?

A. Well, we looked at how we were going to accomplish the task by dropping those out. Replacing insulators was fairly straightforward. We had all the details we need as far as weights and strings to do it safely with the proper tools.

And then if I remember, we probably talked about how we were going to control those -- they're called bundle jump, bundle line. So there's two wires per phase, and we had to control those. So we probably said, Hey, we'll just bolt them together and that will secure them. They can't go anywhere, they can't make contact below or go above, and that will suffice because -- and we didn't entertain cutting. That didn't cross our minds, simply because that would have been the

wrong thing to do at the time.

Q. Explain what you mean by bolting the two together.

A. Well, those connectors, let's call them, at the end of each one of those right here, those two connectors I believe are four bolt. And what we did is you take the bolts, bolt them together and tighten them up so they stay flat, secured to each other.

Q. Okay. And you say we didn't talk about cutting. What do you mean by that?

A. Well, you know, some people would think, Hey, if you're smart why don't you just cut it off right here, and move everything out of there and you're done.

MR. KRAVIS: And for the record, I saw the witness using the pointer to indicate the middle left of the photograph where the clamp meets the jumper.

THE COURT: Okay. Thank you.

BY MR. HENNING:

Q. So are you saying that -- you're saying some folks would say that. Are you saying you talked about that?

A. No. We wouldn't even entertain it.

Q. Okay. So you didn't have any conversation --

A. No.

Q. -- about -- and I'm going to just -- you didn't talk about the idea of cutting right here?

A. No. Absolutely not.

MR. KRAVIS: For the record.

MR. HENNING: Thank you for the prompt.

BY MR. HENNING:

Q. I'm pointing to the wire just to the right of the connector on People's 93.

Can you -- I've heard a number of terms for it. Can you identify for us this piece of equipment right here?

A. Some people call it a dead end shoe. In the industry it's called a quadrant clamp.

Q. And have you ever heard it called a six-bolt connector?

A. A six-bolt?

Q. A six-bolt connector?

A. No.

Q. So quadrant clamp or dead end shoe.

A. Yes.

Q. Thank you.

And he's referring to the hardware that's just beneath the two parallel insulator strings on People's 93.

When you talked about doing this work ahead of time with Mr. Cincera, what if any discussion was there about whether this configuration could move in the wind?

A. I don't recall that.

Q. You don't recall?

A. I don't recall talking about wind.

Q. And let's talk about the Geysers in general.

Have you -- can you describe whether the Geysers

experiences windy conditions?

A. It has. It does. It gets windy up there.

Q. Okay. How would you describe the wind conditions up there compared to where we are down here in Santa Rosa?

A. Fluctuates like anything else. I don't know what you're looking for.

Q. Okay. I'm just looking for --

A. I'm telling what my experience up there is it gets hotter than hell. It gets windy and then it's nice. Sometimes. Not as much nice as, you know, but...

Q. And so it does get windy?

A. It does get breezy, but nothing I haven't seen before in Sausalito.

Q. Okay. Nothing you haven't seen before in Sausalito. Why do you use Sausalito?

A. Well, there's towers up on the hill above Sausalito. And the same. High ridge, and it gets windy up there too.

Q. Okay. You chose a location outside of Sonoma County. Can you compare the windy conditions in the Geysers to elsewhere in Sonoma County?

A. There's not as many places in Sonoma County that I'm aware of that's over 3,000 feet like that, but only -- still not -- no, not really.

Q. Okay. And the elevation up in the Geysers, do you know, in your opinion, does that contribute to the windy conditions?

A. I don't know that the altitude -- I know it's above 3,000 feet at a lot of locations, but I don't know if that contributes to wind. I don't have that expertise.

Q. I asked you to compare it to Sonoma County. You said you couldn't think of anywhere else.

A. I can't think of anyplace else except for maybe -- places I've been. But it was up Calistoga Road at the top of St. Helena maybe, but I don't know if that's Napa County.

Q. Okay. I don't either. Fair enough.

But you have experienced windy conditions in the past?

A. (Witness nods head)

Q. I saw a head nod.

A. Yes, I have seen windy conditions at the Geysers.

Q. But before this work was done in 2006, your recollection is that you and Mr. Cincera, you didn't discuss whether wind would affect it?

A. We probably -- no, we didn't discuss the wind as part of our tailboard and our decision-making on tools, equipment, safety and all that.

Q. Okay. And you just used some jargon that I know that I don't think the judge knows. What do you mean by tailboarding?

A. In PG&E before you do any task, even a single member has an obligation to tailboard himself, but as a crew you talk about the work, what you're asked to do,

how you're going to accomplish it, what are the safety concerns, what are the risks involved, and then how you're going to mitigate those. So that everybody on the crew knows what everybody else is going to do. And if somebody shows up on the job site -- so if they're in progress and I show up, they stop, and then they tailboard me on the safety hazards and everything. So everybody is always aware of what's going on.

Q. Okay. And do you recall when this tailboard occurred in relation to the work?

A. We had a tailboard prior to the crew going there on that day. The day they dropped the wire.

Q. Where was the tailboard?

A. At the structure.

Q. Were you up there?

A. Yes.

Q. So you were up there the morning that the work was performed?

A. No, I don't recall that. We were up there prior to -- some days prior to that. There was Steve and I and some other folks that went up there. I don't recall the date, but there is an e-mail in one of your things about it, about the request to the security that says, Hey, these folks are coming up there tomorrow to do a job that's going to be done on a certain date. I don't recall who all it was with, but I know Steve and I met -- I don't recall if it was Chad Watts and some other folks.

Q. I'm a little confused. Were you present when the tailboard was had the morning that the work was done?
A. No, I don't recall being there.
Q. So you're saying based upon general PG&E practice you believe there would have been tailboarding?
A. The morning of the work?
Q. Yes.
A. Absolutely.
Q. But you weren't there for it?
A. Didn't have to be. But there's a written document that has to be filled out every morning, and it is part of the record of the job.
Q. Okay. So there would be a written document related to this tailboard?
A. Typically -- I'm trying to think, in 2006, I'm trying to remember if those documents came into play yet.
Q. So maybe there wasn't a written document?
A. I don't recall that that -- if they were in force at the time, it would be a matter of record, which would attest who was there, what was talked about and what was identified.
Q. Okay. And did you go back up there when the work was completed?
A. I probably did. I just don't recall the date. I probably was up there sometime between this -- their initial drop in that, changing those insulator, and I believe it was October they did the other side. So at

some time I was there, yes.

Q. Okay. Do you recall going up there and having a chance to look at the work that was performed on the Lakeville side of the tower?

A. I don't recall it. I don't know the date, but if I was there I'm sure I looked at it.

Q. But you don't have an independent recollection?

A. No, sir.

Q. Now going back to People's 91, which is up on the TV screen behind you. When they performed the work, all of this blue line that you drew was removed?

A. Affirmative. Yes.

Q. And the red insulators, the one on the right that was Calpine's responsibility, and the one on the left that was PG&E's responsibility, were removed?

A. That's correct.

Q. Okay. And my question is, would removing this insulator right here and this connection point right here to the line, would this make this configuration more susceptible to moving in the wind?

A. On the other picture that you have with the blue line --

Q. Hold on one second.

A. -- that's a continuous piece of wire that goes through those NEMA pads through that quadrant clamp and so it's continuous. There's not another connection point.

Q. Okay.

A. So it's one piece of wire, goes through there, up through all the way to the other side, down that quadrant clamp. All one piece.

Q. Let me ask you this way. Would you have an opinion, back when it was configured like this --

A. Yes.

Q. -- do you have an opinion as to the ability of this vertical insulator to move in the wind?

A. Yes. It moves in the wind.

Q. Okay. How much does it move in the wind?

A. I don't know. I never been up there and watched it or measured it. I don't know.

Q. Okay. And what about when this isn't there, when it's configured like this? Can this move in the wind?

A. Well, the weight didn't change, so again, I'm not a wind calculator. I don't know. There are people who do that for PG&E.

Q. Okay. Were there any wind calculations done prior to performing this work in May of 2006?

MR. KRAVIS: Objection. Lack of foundation.

THE COURT: Overruled.

Do you know if any wind calculations were done?

THE WITNESS: I imagine when they designed it and build it, it's part of the design criteria. PG&E designs at eight pounds of wind across one foot of conductor for one minute. Now eight pounds is roughly 57 miles an hour, and that's -- it has to be included in their calculations of wind and movement and weights and

all that. It's all part of the design criteria.

THE COURT: So I guess the question is do you personally have knowledge whether that was done?

THE WITNESS: No. Well, the design calculations, that's what they're required to do.

BY MR. HENNING:

Q. Okay. You're talking about when the tower itself was designed in the 1970s?

A. 70s, yeah.

Q. 70s or 80s.

A. Yeah.

Q. And my question to you, though, is when you did this work to disconnect the line from CalPine 9 and 10, or Geysers 9 and 10, excuse me, were there any wind calculations made at that time?

A. Not that I'm aware of.

Q. Was there any -- did your crew -- so you've told us you didn't consult with anyone outside of your crew.

A. Consult with for?

Q. Any engineers?

A. Nope.

Q. Okay. And to the best of your knowledge, did anyone in your crew consult with any engineers before doing this work?

A. Not that I'm aware of.

Q. And so having not done these wind calculations, are you able to say whether this configuration would be more susceptible to movement in the wind compared to the

original configuration?

A. Again, I don't know that. I don't know what wind does across that insulator. Somebody may know. I don't.

Q. Okay. How much would you expect to see this jumper configuration able to move in the wind?

MR. KRAVIS: Objection. Vague as to when, because we have two different pictures.

MR. HENNING: I was just looking at People's --

THE COURT: Sustained. It's also vague as to wind. How fast is the wind blowing and from what direction.

MR. HENNING: Okay.

BY MR. HENNING:

Q. What's depicted in People's 94, the jumper configuration -- well, let me ask you this. What is the purpose of this vertical -- vertically hanging insulator?

A. It's a jumper support.

Q. Other than support, does it serve any electrical function?

A. Well, they are insulators, so yes, they're keeping any voltage. But they're supporting that. Their design criteria -- within the state of California there's rules, and it says that wire cannot be more than this distance close to the steel or to a climbing leg or whatever. There's specific measurements. That maintains that jumper at that distance.

Q. Okay. And do you know whether this is heavy? These vertically-hanging insulators?

A. Those are fog insulators. Those are probably about four pounds each, except for the last one closest to the yolk at the bottom, and that's a standard. So they're four pounds each at least.

Q. Okay. And you pointed something out. I'm glad you did.

The individual insulator at the bottom of that string is a different size from all the insulators above?

A. It's a standard as opposed to a fog.

Q. Okay. A fog insulator, is that heavier than a standard insulator?

A. Yes, it has more ceramic surface area.

Q. Other than complying with space requirements from a jumper from the tower, what is the purpose? What is that support string serving as a purpose?

A. I don't know how many times -- I don't understand what you're looking for. You got me kind of perplexed. You keep saying the same thing over.

They're insulators to insulate that jumper to keep it a certain distance and support that bundle conductor. That's it. They're supporting that jumper. It's an angle tower. Whether CalPine was there or not, it would have that jumper support. That has no bearing on anything. Just because there's a tap there. Because the other side of the tower you notice there are no

jumper supports, because the wires are going off at an angle that doesn't require them.

Q. Let me ask you this. And I'm not trying to trip you up. And so when you don't understand what I'm getting at, it's the way I'm asking the question. So feel free to let me know I'm not asking a good question. I'll rephrase it.

A. Okay.

Q. Earlier you said that you would never consider cutting right here outside of -- and I'm pointing next to the dead end shoe on People's 94.

A. Yes.

Q. Can you explain why that is, or why you wouldn't consider cutting there?

A. Well, in our thought, or in my thought too, you know, when we looked at the paperwork and the stuff that we got, we were removing that because unit 9 and 10 is being mothballed. To us that means we start cutting things up, that thing's coming back online in two years, three years, are they going to replace the cooling. We don't know, so we're not going to effect the fact we can't reconnect it correctly by cutting something else. That thing may come back.

Q. Let's talk about that. Mothball. How did you know that unit 9 and 10 was mothballed?

A. They told me in this.

Q. Okay. And to you mothballed --

THE COURT: Wait a minute. For the record, the

witness held up something. I don't know what it was.
THE WITNESS: It's Exhibit 72.
THE COURT: That's okay. People's number 72.
THE WITNESS: Says mothballed.
MR. HENNING: I would ask to move 72 into evidence, if it wasn't received earlier.
MR. KRAVIS: I thought it was already in.
THE COURT: 72 was received.
MR. HENNING: That's the electric line notification?
THE WITNESS: No, it's the e-mail from --
THE COURT: The e-mail is 73.
THE WITNESS: I didn't have my glasses on. I'm sorry. This says 72. The little sticker here.
THE COURT: Okay. So then 72.
THE WITNESS: 72, the conversation right here.
THE COURT: Okay. I have that admitted as well. I'm sorry.
BY MR. HENNING:
Q. You said -- what does mothballed mean to you?
A. When I think about mothballed I think about Bernicia. There's a whole bunch of ships. There's ships that they say, We may need these again. It's a mothball fleet. And if we need them, they're there. If they're not there, we got troubles maybe. That's why they're there. Just in case.
Q. You're talking about the World War II battleships?

A. Yeah, there's liberty ships out there. Big battleships were there for some time.

Q. Okay. Now, you mentioned two to three years though, and we're talking about mothball, you're talking being battleships from over a half century ago.

Why in the context of a power plant do you believe that mothballing means coming back in two to three years?

A. I don't know. That's just a number I threw out. A mothball, to me it means it's not gone away but it's not being used.

Q. Okay. And let's talk about your experience in the Geysers with other power plants. Do you recall how many other times you've known of a mothball power plant that came back online?

A. Only one off the top of my head, and that's Bottle Rock power plant. Bottle Rock it's called.

Q. And approximately how long was it before Bottle Rock came back online?

A. 15 years.

Q. At the time that you were doing this work back in 2006, did you have any idea how long 9 and 10 had been mothballed?

A. No, no. You mean it was offline and how long it had been offline?

Q. Correct.

A. No, I wasn't aware.

Q. Okay. And so did you have any -- other than the

experience of this -- well, actually let me back up. This plant that came back, Bottle Rock, after 15 years, approximately when did that happen? When did it come back online?

A. Oh, it was right around that same time period. 2006, 2007 when it came back. Somewhere around there.

Q. And other than that, though, you weren't aware of any other power plants that had come back online once mothballed?

A. I'm not -- I don't recall any.

Q. And did you ever talk to anyone, either PG&E or CalPine, about future use of 9 and 10?

A. No, not that I recall.

Q. Okay. And have you ever talked to -- have you ever in your time at PG&E had an opportunity to talk to CalPine employees?

A. I've talked to CalPine employees but, no, that wasn't when I was still with PG&E. That was after I left PG&E.

Q. Okay.

A. So I didn't have much interaction with CalPine.

Q. Okay. Was there anything at the time back in 2006 that prevented you from finding out from CalPine what the future use of 9 and 10 was?

A. Not my responsibility.

Q. Okay.

A. That's a no.

Q. That's not really an answer to the question. Was

there anything that prevented you?

A. Prevented me?

Q. Were you able to?

A. I didn't have access. I never, to CalPine. The only time I would have a contact is operations center. I didn't make direct contact with CalPine ever.

Q. Okay. You did have an opportunity to go up there a few days before the job site.

A. Yes.

Q. Was there anyone working at 9 and 10?

A. I do remember a couple of folks up there doing some cleanup work of some sort. And -- because I remember them saying something about the -- wearing the Tyvek suits while we're in the yard part of it. Other than that I don't recall.

Q. Why would you have to wear a Tyvek suit?

A. Well, again, there was a lot of contaminates that were associated with the Geysers.

Q. Okay.

A. That was --

THE COURT: Would this be a good time to take the afternoon recess?

MR. HENNING: Yes.

THE COURT: All right. Let's take a 15 minute recess.

(Recess)

THE COURT: All right. Let's go back on the record. All the parties are present and in their

places.

I asked the bailiff to have the witness step outside because I wanted to take up the issue of the proffer that was mentioned at the beginning of his testimony. It was kind of mentioned briefly and then not returned to.

Personally, I'd like to see a copy of the proffer. I have no idea what the agreement between the District Attorney's Office and the witness is. I assume PG&E has been provided a copy of the proffer agreement?

MR. HENNING: I have not received a signed copy back. Maybe Mr. Bornstein has it with him today.

MR. BORNSTEIN: So, your Honor, there was an interview that took place before we -- before the testimony -- with the district attorney, and he offered a proffer agreement. It was a letter agreement for that interview. And actually, I'm sorry, but we didn't actually sign it, but we assumed that it was covering that interview.

We talked about the testimony today. We didn't feel that we needed any sort of immunity or anything else with respect to his testimony. That he was called as a witness, there was no concern or allegation that he had done anything that would put him in harm's way, so we didn't go forward with it. But his understanding was that what he said, which was that when he spoke to the district attorney that he was being called as a witness and that he needed -- and that whatever he said would

not be used against him in any other proceeding in that interview that he gave, except if he lied or didn't tell the truth or otherwise, you know, said something that was deliberately wrong.

THE COURT: So there is no cooperation agreement at this point between the District Attorney's Office and the witness.

MR. HENNING: No, I would not call it a cooperation agreement. It was an agreement that he would submit to an interview, as described by Mr. Bornstein, and anything he said in that interview could not be used against him. We made clear we were only looking to talk to him as a witness.

THE COURT: Okay.

MR. HENNING: And I should tell the Court, because we're hoping to get to the next witness, Mr. Cincera, and this will apply equally to him. He's also represented by Mr. Bornstein.

THE COURT: And he's in a similar situation, an initial proffer letter that's now still unsigned, but no cooperation agreement?

MR. BORNSTEIN: Correct.

MR. HENNING: And I just asked my paralegal to print out -- I do have the copy we sent them with my signature on it. I can submit that to the Court shortly.

THE COURT: Has PG&E received a copy of that letter?

MR. BORNSTEIN: I didn't send it to them.

MR. HENNING: I sent them a copy. We recorded the interview with his consent, with Mr. Hemstock and Mr. Cincera's consent. We sent those interviews over and told them we would send the signed proffered letter once we get them.

THE COURT: The reason I bring it up is because in my experience in criminal practice, usually the proffered agreement stems from an agreement whereby the witness or potential witness has some kind of criminal liability of their own, and in exchange for cooperation with the District Attorney's Office won't necessarily face that criminal liability. This does not sound like that's what's happening.

MR. HENNING: This is not that situation.

MR. BORNSTEIN: Correct. And that's why we didn't really pursue it. It was really more of actually a courtesy, I think, from Mr. Henning. Just so our folks could feel comfortable in terms of talking to him, it was the right thing to do and not to worry about it. But it was not necessary and it's not necessary with respect to the testimony.

THE COURT: Do you have any objection to turning a copy of the letter over to the defendant?

MR. HENNING: No. Well, we'll see how many copies come. I have no problem with it. You know, I would have hoped -- I expect to receive one in short order, signed back.

MR. BORNSTEIN: I wasn't planning on signing it and I didn't ask the witnesses to sign it.

THE COURT: Mr. Brian?

MR. BRIAN: I'm just going to say if there's no proffer agreement for the testimony today, I think there's a question frankly whether it's relevant at all. We can take that up later.

THE COURT: Whether the testimony is relevant?

MR. BRIAN: No, the fact of a proffer agreement as to the interview. Unless there's some allegation that he's testifying differently from the interview, I don't see the relevance of a proffer agreement for the interview.

MR. BORNSTEIN: That was my take. So once we were done, it all happened pretty quickly and we're here, and we told him that we did not want or need a formal order or anything else. We didn't ask for anything with respect to this testimony. And so I'm sorry if I dropped the ball and didn't send it to PG&E, but I didn't feel I needed to.

THE COURT: I don't disagree with Mr. Brian or anybody here. I just had a different understanding because I heard the word proffer, and then no further information was provided, and my thought is the Court is to assess the credibility of the witness or advise the witness, and I felt there was something important being left out, and it sounds like there's not.

MR. BORNSTEIN: No.

MR. HENNING: I just sent the copy that has my signature on it to Mr. Kravis and Mr. Brian.

THE COURT: Okay.

MR. BORNSTEIN: And that's the only signatures that are on it.

MR. BRIAN: Your Honor, on a slightly related note, the question was asked, and I'm sure it will be asked of Mr. Cincera, whether or not PG&E is paying the attorney's fees. I don't care if that's admitted in front of your Honor. If we get to a jury trial we would object to that. We are required by the labor code to do that, and the suggestion that -- I hope there's no suggestion that we're trying to influence the testimony.

THE COURT: I had expected as much, and if and when we go to a jury trial we can litigate that issue in limine.

MR. BRIAN: Fine.

THE COURT: All right. Thank you for the clarification.

Mr. Henning, if you'd like to bring the witness back in?

MR. HENNING: I don't know if Mr. Bornstein wants to have a quick moment with him. He might be questioning what just happened.

THE COURT: If you'd like to have 30 seconds with him in the hall to explain what we did discuss that would be fine.

(Short pause)

THE COURT: Mr. Hemstock, welcome back. Make yourself comfortable, if you would. I will remind you, you are still under oath.

THE WITNESS: Yes, sir.

THE COURT: Mr. Henning.

MR. HENNING: Thank you, your Honor.

BY MR. HENNING:

Q. Mr. Hemstock, I don't have too many more questions. But focusing on -- I believe it's People's 94. You had mentioned earlier that at the time that you were talking about doing the job there was no discussion about cutting it right here, the wire, just adjacent to the dead end shoe?

A. Yes, sir.

Q. Can you explain why that is?

A. Because if we was to cut there, or anywhere, on that string or that jumper, restoring -- if and when, because again we didn't know if that unit came back online, trying to restore that jumper to operating to that configuration would be -- wouldn't be possible. There's no connection point that we could use.

Q. Okay. Why not?

A. Well, we don't -- in PG&E, we don't make connection onto this main line that you see here. It's not a good practice, because that creates a failure point because you actually have to cut the wire and then try to put it back together.

Q. Okay. And I'm going to try to ask you some

questions. Let me borrow this.

You're saying that you wouldn't make a connection on the main wire over here. And I'm pointing to the left of the dead end shoe on People's 94.

A. Yes.

Q. Okay. And a question I have, is the wire that's depicted here that comes from the main line and goes into the dead end shoe and comes out, is that one wire?

A. Yes.

Q. Okay.

A. Right till right there (indicating).

Q. You're pointing to -- do you call that a swage or a sleeve?

A. It's a jumper sleeve.

Q. A jumper sleeve. Okay. And describe for us what's inside the jumper sleeve.

A. Nothing. The wire. The two ends of the wire. You grease them up, or it's called no lock side. It's aluminum. You run it together and you use a 60-ton press to press them together.

Q. Okay. And so this side of the jumper, I'm looking to the right of the jumper sleeve, is a different wire than the left side of the jumper sleeve?

A. No. It's all the same conductor. Same size.

Q. I mean, but they're not connected?

A. You're losing me. Yes, they are. That's one piece of wire twice going down to that jumper. Just because there's -- during construction what we would

typically do in those days is that string of insulators, the wire going each way, hanging way down, we would just lift it up and plug it in. Just hang the insulators. Then once the wires are deadened, we take those tails and swing them up -- okay, we want to cut it right here, then we put them together. Press them. But essentially it's now -- it goes through the shoe.

Q. I'm pointing. Through the shoe.

A. That is the shoe there.

Q. The wire comes down there.

A. Comes through that and keeps going.

Q. This is where I'm a little confused. Inside the sleeve are there two wires connected and that's what the sleeve is doing?

A. Yes. You're compressing that sleeve with a 60-ton press. Just almost like a solid piece.

Q. So these were -- at one point this part would have been a different wire and then this part --

A. Yes.

Q. -- would have been different, and they were put together, and that's what the sleeve is doing?

A. Yes, sir.

Q. And if you cut it right here in this space, so in that space between the dead end shoe and the sleeve, can you explain why it is that you couldn't reconnect at that point?

A. Not enough room. Those sleeves and the jumpers and to make the compression -- you got to remember,

aluminum, as you compress it, it gets longer. So if you don't have that much wire sticking out of the shoe, you can't make the connection.

Q. So how much wire approximately would you need coming out of the shoe to make a future connection?

A. If I -- at least a couple feet.

Q. Okay. And this picture doesn't help, but there's less than a couple feet between the shoe and the sleeve?

A. It looks to me there's maybe eight to ten inches.

Q. Okay. Now what about -- just hypothetically. I guess my question is, if you were to add some additional insulator plates here, and so make this entire insulator connection string longer, wouldn't that push the shoe further down the line?

A. Yes.

Q. Okay. And so by pushing the shoe down the line, as the shoe moves down this way, you're going to have more conductor coming out of this side of the shoe.

A. Well, see, here's the problem. When you start messing around with that shoe right there, you got to remember that conductor, that unit 13 is going through that shoe, and then it's a hard turn down, as you can see, and then it's got a bunch of bolted clamps that you tighten up very tight. You take that off now, that wire is all kinked. It's not usable.

Q. So you're saying --

A. So by me trying to slide that shoe down accomplishes nothing unless I go way out, because now I

got a bunch of bent wire that's not usable.

Q. Okay. So the wire that's here under -- inside the dead end shoe, you're saying that it's compromised because it's so tight and clamped.

A. Right at that bend at that wide spot right in the middle.

Q. This one right here. And I'm pointing at the bend part of the shoe.

A. Yes. It's quite a chore, yes.

Q. Now, but you need a couple feet, so if you were to move the conductor -- or excuse me. You were to add enough length here so that the dead end shoe moves a couple feet down here, past that compromised part of the line, would you be able to use that as a connection point?

A. Hypothetically?

Q. Yes.

A. Is that what you're asking? That seems pretty much anything, yeah. But is it allowed? No.

Q. Why isn't it allowed?

A. Well, the engineer who designed this stuff isn't going to let you say, I'm going to call him up and say, I'm going to take three dog bones, which are the links that we call dog bones, and I'm going to put three or four links in there to get that shoe farther out. What do you think of that? He'll say, You're out of your mind.

Q. Why would you talk to an engineer in that

situation when you didn't talk to an engineer about the work that was performed in 2006?

A. I don't need to talk to an engineer about the work. We know how to do the work. I think what you're referring to is I didn't talk to an engineer about the wind, is what you said earlier.

Q. So you didn't talk to an engineer about the wind. Did you talk to an engineer about the actual work that was performed?

A. No, I didn't. To do that work, no. I had the knowledge and training to do that work without an engineer reference.

Q. Okay. Would you describe the work that you performed? Or excuse me, that your crew performed as routine?

A. Yeah. Yeah, pretty routine, yes.

Q. Okay. What we're looking at in People's 94, this jumper configuration -- and I just mean specifically what's depicted here. Have you similarly configured another jumper loop like this?

A. Have I done? Yes.

Q. Okay. Where?

A. Probably right on that line somewhere, one of the tower lines, the 230 lines that are up there that I worked on when they were building in the early years.

Q. Okay. Approximately how many times have you created jumper configurations like what we're looking at in People's 94?

A. How am I going to have that number in my head? How do I know how many times? I built a lot of transmission lines and all of them have dead ends and jumpers and stuff. I can't tell you the number of exactly 230 KV. Let's call it 20. I've done 20.

Q. And I'm just asking you to estimate.

A. Yeah.

Q. And so approximately 20 times you've configured a jumper loop where it comes out like this and it's only supported by this vertically-hanging insulator as depicted in People's 94?

A. True, yes.

Q. Okay. And of those approximate 20 times, did any of those times, did the jumper down here, did it continue into another connection point?

A. Yes.

Q. Oh, okay. So this is where I'm struggling to understand you.

I'm looking at a configuration where the jumpers end just past the vertically-hanging insulator, and there's no other connection point on the other end. Have you ever done that work?

A. You mean because there's no conductor going the other way on the same side of the tower.

Q. That's what I mean, yes.

A. I can't recall it, but it's not unusual, no. I just don't recall which tower I did.

Q. Okay.

A. It could have been this one.
Q. So this could have been the only time that this specific configuration was a product of your work?
MR. KRAVIS: Objection. Leading.
THE COURT: Overruled. I'll hear the answer. I think he's just trying to clarify.
THE WITNESS: Repeat the question, please, then? I don't know what you're looking for.
BY MR. HENNING:
Q. What I'm looking for --
A. Is have I done this before?
Q. And by this, I don't mean -- what I mean is specifically jumpers being supported by vertically-hanging insulator and then just terminate, without any connection point on the other end.
A. I don't recall. I don't recall.
Q. Okay.
A. I'll just leave it at that.
Q. Is it possible this is the only one?
A. The only one of this configuration?
Q. Yes.
A. No, I don't think so.
Q. You don't think so. Can you identify one other single location?
MR. KRAVIS: Objection. Asked and answered.
THE COURT: Overruled. Go ahead.
BY MR. HENNING:
Q. Can you identify for us one other single location

that has this same jumper configuration?

A. Without taking a trip up to the Geysers and looking at all the 230 configurations where they're coming out of the power plants, no.

Q. Okay. Well, what if hypothetically you were told that there was no other configuration like this on PG&E's entire network?

MR. KRAVIS: Objection. Lack of foundation, calls for speculation.

THE COURT: Sustained.

MR. HENNING: Okay.

BY MR. HENNING:

Q. After the Kincade Fire, did you meet with anyone from PG&E about the work that your crew performed in 2006?

A. No.

Q. No. Okay.

Other than meeting with your attorney and then meeting with me and my team last week, did you have any other meetings or discussions about this work that you performed back in 2006?

A. No.

MR. HENNING: May I just have a moment?

THE COURT: You may.

MR. BORNSTEIN: Can I have a moment to clarify something with the witness?

THE COURT: Any objection to his attorney speaking to him?

MR. HENNING: Yes.

THE COURT: So, no. Not at this moment.

MR. HENNING: Your Honor, I don't have any further questions for Mr. Hemstock.

THE COURT: Okay. Mr. Kravis.

CROSS-EXAMINATION

BY MR. KRAVIS:

Q. Good afternoon, Mr. Hemstock.

A. Good afternoon.

Q. Just sort of picking up where we left off. You and I met to discuss this matter once, is that right?

A. I think on the Zoom.

Q. Right.

A. Yes.

Q. We did that one time?

A. On the Zoom, yes.

Q. Now Mr. Hemstock, I would like to start by asking you about that e-mail you have in front of you. I believe it's People's Exhibit 72. If you have it.

May I approach the witness?

THE COURT: You may.

BY MR. KRAVIS:

Q. Mr. Hemstock, I am handing you what has been marked and entered into evidence as People's Exhibit 72. I'm also going to put a copy of People's 72 up on the screen just so we can see it here.

Now, Mr. Hemstock, am I right that the middle e-mail in People's Exhibit 72 is an e-mail from Mr.

Gutierrez to you on March 28 of 2006?

A. That's right.

Q. And am I right that in that e-mail Mr. Gutierrez asks you would it be possible to drop the leads off the first tower coming out of Geysers 9 and 10 mothballed. Did I read that right?

A. That's correct.

Q. Now, did you have an understanding about what Mr. Gutierrez was asking you to do, when he said drop the leads off the first tower?

A. Yes, I understood it.

Q. What was your understanding of the work that Mr. Gutierrez was asking you to perform?

A. Remove the leads from the power plant to our tower and get rid of them.

Q. And the tower is the tower that we were looking at in the photos on direct examination, right?

A. Correct. 0 over 1.

Q. Now Mr. Gutierrez in that e-mail uses the word mothballed. Did you see that?

A. Yes, sir.

Q. Did you have an understanding of what the word mothballed means here?

A. My understanding, yes.

Q. Yes. What is your understanding?

A. That it's a term that something is not being used now but may be used in the future.

Q. I think you gave an example like ships in the

Navy?

A. Exactly. Like we all know about Bernicia.

Q. Now if we move up to the top e-mail, do you see the e-mail from you to Mr. Gutierrez on April 4, 2006 at 7:43 a.m. up there at the top? Do you see that?

A. Yes, sir.

Q. And do you see there in the second paragraph you say, "We would like to schedule insulator replacement on tower 0-1, same tower with the leads off to unit 9 and 10 during Ben's April 10th to 17th clearance, Geysers 12 Fulton."

Do you see that?

A. Yes.

Q. And the next sentence reads, "These insulators are contaminated and covered with dirty silicone."

Did I read that right?

A. That's correct.

Q. So am I right that in this e-mail you say that at the same time you're doing the disconnection work, you're also going to replace the insulators, is that right?

A. That's correct.

Q. And why was it that you were going to replace the insulators?

A. Because they were highly contaminated.

Q. And what is so bad about the insulators being contaminated? Like what can happen?

A. It can flash over and cause an outage to that

line from station to station.

Q. And what is flash over?

A. It's where the insulators fail and keep from insulating the conductor from the tower. So if those insulators fail and a certain amount of them, because each insulator has a certain value, and the current can flow right over the top of them right to the steel and it locks that circuit out.

Q. So flash over is when the current from the line conducts over the contamination. Is that fair to say?

A. Right over the insulators, yes.

Q. And is it fair to say that flash over would only be a concern on an energized line?

A. That's correct.

Q. Now you also say here the insulators are covered with dirty silicone. When you replaced the insulators on the tower, did you also coat them in silicone?

A. The new ones, yes, sir.

Q. Why did you do that?

A. Again, we weren't -- if a unit comes back online, we wanted the protection there already. So we would do the same thing. The insulators that went down were dirty. The new ones came up, covered with silicone, put in service.

Q. So the silicone is being put on the new insulators to protect them in case the plant comes back online?

A. To add -- yeah, an added protection layer,

opposed to just the ceramic insulators, yes.

Q. And that added layer of protection would be necessary if the plant were to come back online, is that right?

A. Yes.

Q. At the time of the work that we have been talking about in 2006, did you know what Calpine's plans were for the future of this plant, Geysers 9 and 10?

A. No, I have no idea.

Q. Did anyone at Calpine during this time ever tell you that Geysers 9 and 10 was going to be permanently abandoned?

A. No, I did not know that.

Q. Did anyone at PG&E ever tell you that they heard from someone at Calpine that Geysers 9 and 10 was going to be permanently abandoned?

A. No, that never came up.

Q. I think you testified on direct examination that you could recall at least one occasion where a plant that had been offline came back online after a number of years. Is that right?

A. That's correct.

Q. Is that the Bottle Rock plant?

A. Yes.

Q. What happened with the Bottle Rock plant?

A. I really don't know when it shut off. I know why they closed it, but -- and I don't recall the exact year, but it was right in the same timeframe. We got a

notification from operations that Bottle Rock was going back online and that we needed to do whatever maintenance reconnaissance so that could come back online and all the infrastructure that we owned was ready for it.

Q. I want to ask you just a few questions now about the work from 2006. I'm putting up on the screen People's Exhibit 94. Do you see that?

A. Yes.

Q. Now, I think you testified on direct examination that in 2006 your crew disconnected this portion of the tower from the power plant Geysers 9 and 10. Do I have that right?

A. That is true.

Q. And I think you said that you considered this job to be routine. Is that fair to say?

A. Yes, it is.

Q. Now, I think I heard you say on direct examination that at the time that your crew performed this disconnection work in 2006, the crew did not consider cutting this jumper off at the clamp right here on the lower left-hand side of the photo. Did I hear that correctly?

A. Well, the crew wouldn't have that decision. The crew itself. Maybe Steve and I would talk about it, but the crew itself take direction. My direction is you don't cut it.

Q. And why was it that you don't cut?

A. Simply because if that unit comes back online then we don't have the equipment, a good way to set it back up to make sure we reconnect them in a timely manner.

Q. If that had happened, if you cut the jumper on the place I showed on the photo and then the plant comes back online and required a reconnection, what would you have had to do?

A. We would have had to take that wire, the main line, go out there with 150 feet, because there are standards at PG&E that says you don't put a splice within 125 feet, I think it is. We have to go out there, drop the wire to the ground, splice it and bring it back up through a shoe and start making the jumpers again.

Q. Would that kind of work create any safety concerns?

A. For us it would, yes.

Q. Why is that?

A. Because there's several reasons on the grounding, is I have an adjacent circuit that is energized. So it's deucing a voltage on the de-energized, because we have to do a de-energize on the Geysers 9 side. So there is a voltage there. We can ground against it.

I also had an issue with the work because we have a substation facility, even though it may be idle or not being used, but if we're sitting in there we have a different ground potential, because it's a substation.

So you never drag things or move things back and forth across that fence. Ever. It's just too dangerous. Because there could be a fault, and that would transfer out to the guys working on the line.

So our job would have been to make sure that we do the grounding and all the preparation so when we drop the wire and splice it that we never introduce a second source of ground potential.

Q. I want to ask you just a few questions now about some of the parts on the tower.

Sticking with People's Exhibit 94. Do you see this vertical line of discs or cones in the middle right side of the photo that I'm pointing to with my pen?

A. Yes. The insulator string, yes.

Q. That's called the insulator string, right?

A. Yes.

Q. It's made out of porcelain, is that right?

A. Those are porcelain and steel, yes.

Q. What is the function of that vertical insulator string?

A. To support the jumper.

Q. And by the jumper, you mean the brown wire in the middle that I'm pointing to with my pen here?

A. That's correct. Or both of them, because there's parallel. There's two wires per phase.

Q. Two wires?

A. Two jumper wires per phase.

Q. Perfect. Was that vertical insulator string on

the tower before your crew performed the disconnection work in 2006?

A. Oh yes.

Q. And was the vertical insulator string on the tower after your crew performed the disconnection work in 2006?

A. That's correct.

Q. And after the disconnection work, was it still performing the same function, supporting the jumper?

A. That's correct.

Q. Now these jumper cables here, before the disconnection work, those jumper cables were not in heavy tension, were they?

A. No.

Q. They're not supposed to be in heavy tension, are they?

A. No, they're not.

Q. And those jumper cables, they're actually supposed to move in the wind a little bit, right?

A. Yes.

Q. I think I heard you say on direct examination that whether the connection to the Calpine plant was there or not would have no bearing on the support for the jumper cables. Did I hear that right?

A. On the jumper string?

Q. On the jumper cables, yes.

A. I think so. I'm not understanding your question. Try it again.

Q. Let me ask it this way.

Before the 2006 disconnection work, would -- am I right that this portion that I'm pointing to with my pen on the bottom right of the photo, the end of the jumper cable, am I right that that would have been connected to the line that ran from the tower to the Calpine plant?

A. That's correct. Yes.

Q. And am I right that the disconnection work in 2006 involved removing that line that ran from the tower to the Calpine plant?

A. That's correct.

Q. My question is, did the removal of that line that ran from the tower to the Calpine plant have very much impact in terms of the support that the jumper cables had on the tower?

A. No, not much at all. If any.

Q. Based on the information available to you at the time, do you believe that it was the correct decision to configure this portion of the tower in this way rather than cutting off the jumpers?

A. That was my decision, yes.

Q. Did anybody from Calpine ever raise any concerns with you about the configuration work in 2006?

A. No, not at all.

MR. KRAVIS: Thank you, Mr. Hemstock. I have no further questions.

THE COURT: Thank you. May the witness be excused or do you have further questions?

MR. HENNING: Briefly.

THE COURT: Go ahead.

REDIRECT EXAMINATION

BY MR. HENNING:

Q. So I just want to understand you. I'm looking at -- we have People's 91. Is it your testimony that the removal of this blue line that was connected to the jumpers, that did nothing to impact the support?

MR. KRAVIS: Objection. Misstates the testimony.

THE COURT: Overruled. I'll hear his answer.

THE WITNESS: Ask me that one more time, please.

BY MR. HENNING:

Q. So I believe I just heard you say that the removal of this blue line, where it was connected, that that didn't impact the support of that jumper system.

A. Didn't impact the support. No, it doesn't impact the support.

Q. Okay. Does it impact the ability for it to move in the wind?

A. No, it still has the same ability to move.

Q. So --

A. I mean, it's always going to be able to move. Where the line is there, the jumper is there going to the sub -- or to the generator or not, that still does move.

Q. So you're saying that removing the line right

here, where it's connected, that doesn't impact how much it can move in the wind?

A. If it does it's not very much. It's very slight.

Q. It's very slight. And you're saying that even though you didn't do any wind calculations.

A. I didn't have to.

Q. Okay. The work that you were just describing where you have to be, I think you said, 150 feet or 120 feet?

A. We would go -- I think the standard requirement is 125, but we would go out extra room so there's no splice within 125 feet of the tower.

Q. And that's known as splicing a line?

A. Yeah, if you cut it and add some wiring, yes.

Q. Have you done that work before?

A. Oh, yeah.

Q. How many times?

A. Hundreds across my career.

Q. And the dangers that you describe, that's what's known as induction?

A. If you have adjacent and parallel circuit, yes.

Q. So you're referring to the fact that the other side of this tower, the Fulton side, is an energized circuit?

A. Correct.

Q. And would that danger of induction exist if you're doing the splicing work and the Fulton side is de-energized temporarily?

A. Are you asking what if Fulton was de-energized, then we could do the work?

Q. Correct.

A. We would still be dropping the wire to the ground and doing all the same thing.

Q. But what about the induction dangers?

A. If you could actually dump the 230 lines right there, which ain't going to happen, but it drops down, as far as the hazard of induction. It doesn't relieve you of the fact that you have to ground a certain way. And PG&E, you ground -- they're very specific on how you ground.

MR. HENNING: Okay. I have no further questions. Thank you.

THE COURT: Any recross?

MR. KRAVIS: No, thank you, your Honor.

MR. BORNSTEIN: Your Honor, I'm sorry, but I have to ask the district attorney a question before you excuse the witness, please. I'm sorry.

THE COURT: Go ahead.

MR. HENNING: May I just ask a couple questions?

THE COURT: Go ahead.

REDIRECT EXAMINATION

BY MR. HENNING:

Q. So when I was asking you questions earlier you said that you didn't have any meetings with anyone other than your attorneys and myself last week, but then you

were reminded that you had a Zoom meeting or a phone call with Mr. Kravis.

Other than that, did you have any other conversations, phone calls, zoom calls, other meetings with PG&E regarding Kincade?

A. I don't recall ever talking to anybody about the Kincade Fire.

Q. Okay.

A. I have no knowledge of what happened as far as, you know, fault or failure. I have -- nobody ever told me about it.

Q. Okay. Let's not talk about -- after October 23rd, 2019, did you have any other conversations or interviews with PG&E about the work that you performed while at PG&E?

A. Not to my recollection. I don't think I've talked to anybody about it until I talked to you folks.

Q. And "you folks" includes Mr. Kravis?

A. The PG&E, my own attorney.

MR. HENNING: Okay. Thank you.

MR. KRAVIS: I'm sorry. Can I do one more?

THE COURT: Mr. Kravis, of course.

MR. KRAVIS: Thank you.

RECROSS-EXAMINATION

BY MR. KRAVIS:

Q. Mr. Hemstock, just to clarify, it wasn't me at that time, but do you recall in March of 2021 having a conversation with some lawyers for PG&E about the

Kincade matter?

A. Wow. You know, I vaguely remember somebody talking to me. I don't remember if it was a phone call. I don't remember exactly how it happened. I do vaguely, but I couldn't tell you who it was.

MR. KRAVIS: Fair enough. Thank you, Mr. Hemstock. That's all I have.

FURTHER DIRECT EXAMINATION

BY MR. HENNING:

Q. So now you're remembering this.

A. I vaguely remember somebody talking to me after the Kincade Fire. Or I don't know if it was after. It might have been still going on. I don't know.

Q. So we're not talking about March 2021. We're now going back to 2019 when the fire was burning?

A. No, I don't have any recollection. I couldn't tell you who it was, if somebody said on this date you talked to so and so about this. Maybe it would kick my recollection, but I have no recollection whatsoever talking to somebody.

MR. HENNING: Okay. I have no further questions.

MR. KRAVIS: Thank you, your Honor.

THE COURT: All right. Thank you, sir, very much for being here. You can step down. Don't forget your water.

We still have 15 minutes in the day, if you'd like to get started on your next witness. If you have

another witness for the day. I don't know if you do.

MR. BROCKLEY: I would expect my direct to last over more than an hour, so...

THE COURT: You'd like to come back tomorrow -- or sorry. The 22nd?

MR. BROCKLEY: Yes.

THE COURT: Any objection to that?

MR. BRIAN: No, your Honor.

THE COURT: All right. Then we'll break for the day.

MR. BROCKLEY: I would like that witness ordered back. Steve Cincera, please.

THE COURT: Is Mr. Cincera outside?

MR. BORNSTEIN: Yes.

THE COURT: Could you have him step in for just a moment?

Has he been properly subpoenaed, Mr. Brockley?

MR. BROCKLEY: He has. Yes, your Honor. Thank you.

THE COURT: Right there is fine. Are you Mr. Cincera?

MR. CINCERA: I am.

THE COURT: Mr. Cincera, we're going to go into recess now for the rest of the day. We're going to resume on Tuesday, February the 22nd. Let me double check the time here for you. At 9:30. I understand you've been subpoenaed for this case, so I'm ordering you back on Tuesday, February 22nd at 9:30 in this

courtroom, okay?

THE WITNESS: Okay.

THE COURT: We'll see you then, sir. Thank you.

Anything else to put on the record before we recess for the day?

MR. HENNING: I don't believe so.

THE COURT: Okay. We're in recess. See everybody on the 22nd. Thank you.

(Whereupon, proceedings concluded)

STATE OF CALIFORNIA)
) ss:
COUNTY OF SONOMA)

CERTIFICATE OF SHORTHAND REPORTER

I, BECKI PETERSON, CSR No. 8973, a duly appointed, qualified and acting shorthand reporter for the County of Sonoma, do hereby certify:

That on February 9, 2022, I reported in shorthand writing the proceedings had in the case of THE PEOPLE OF THE STATE OF CALIFORNIA versus PACIFIC GAS AND ELECTRIC, aka PG&E.

That I thereafter caused my said shorthand writing to be transcribed into longhand typewriting.

That the foregoing pages 157 through, 156, constitute and are a full, true, correct and accurate transcription of my said shorthand writing and a correct and verbatim record of the proceedings so had and taken, as aforesaid.

Dated this 9th day of February, 2022.

_____
BECKI PETERSON, CSR 8973