UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

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Investigation of:	*	
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PACIFIC GAS & ELECTRIC COMPANY	*	
SEPTEMBER 9, 2010 ACCIDENT	*	Docket No. DCA-10-MP-008
SAN BRUNO, CALIFORNIA	*	
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Interview of: PETER BECK

Anaheim Room
Marriott Hotel
San Francisco Airport
1800 Bayshore Highway
Burlingame, California 94010

Thursday,
September 16, 2010

The above-captioned matter convened, pursuant to notice, at 10:28 a.m.

BEFORE: KARL GUNTHER
Accident Investigator

APPEARANCES:

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I N D E X

I N T E R V I E W

(10:28 a.m.)

MR. GUNTHER: On the record.

I'm Karl Gunther, National Transportation Safety Board. We're investigating an accident that occurred on September 9th, 2010, in San Bruno, California. It's our accident number DCA-10-MP-008.

INTERVIEW OF PETER K. BECK

BY MR. GUNTHER:

Q. Okay. We start out by getting your name, address, and phone number for the record.

A. All right. My name is Peter Kenneth Beck. Do you want the company address or my personal address?

Q. Either.

A. Okay. The company address is 3955 Arch Road, Stockton, California.

Q. Okay. And phone number?

A. (209) 601-7129.

Q. Okay. And what is your function at PG&E?

MR. CHHATRE: Off the record, please, for one second?

(Off the record.)

(On the record.)

BY MR. GUNTHER:

Q. Okay. Mr. Beck, are you aware that you can have one person with you that can be anyone you wish? It can be legal

counsel. It can be your shop steward. It can be anyone. Are you aware of this?

A. Yes.

Q. Okay. Are you represented today by counsel?

A. Yes.

MR. JAQUES: And I'm Dane Jaques, here on behalf of the witness.

MR. GUNTHER: Okay.

BY MR. GUNTHER:

Q. All right. Can I get your function with PG&E?

A. Technical crew leader B.

Q. Okay. What I'd like you do to is start from the beginning, on September 9th, and where you were, what you did, and just go ahead and just go right through everything you did on that day and evening.

A. Do you want me to start like first thing that morning?

Q. That's fine.

A. I mean, up until 11:30, when John Groppetti arrived, we did some things that were -- have no bearing on this.

Q. That's okay. Just go ahead and start at the beginning.

A. Okay. In the morning, we -- my crew just consisted of Ed De La Torre and myself. We met in an office, went over the day's projected activities, went over a job safety analysis, possible pitfalls. We discussed the need to troubleshoot some receptacles out in the yard, because at that time we thought that

we were going to need those to power chromatographs out in the yard. That turned out to be not necessary.

So, anyway, that took a couple of hours of investigation. At that point, I told Ed that it had come to light that the breakers operating those chromatographs would not be affected in the afternoon, so we didn't need to find an alternative source of power for them.

So, at that point I told him to do a vehicle inspection on both of our vehicles because those were due early in the month. He took a couple of hours on those while I reviewed prints and just mostly mentally getting prepared for when John Groppetti would get there and we would start the procedure to clear the UPS panel. I believe the acronym was UDP in the computer room. And that was the main function of the day. The main goal was to clear all of the circuits from that panel so we could replace the guts of it to go from a three-phase panel and change it into a single-phase panel.

So, subsequently, Oscar Martinez arrived. We discussed the upcoming job with him. John Groppetti arrived. We discussed how we were going to go about clearing the circuits. We had a Daniel chromatograph that we needed to keep powered. We had a couple power strip or power supplies that we needed to keep. And, really, without the aid of a print, I can't tell you exactly the circuits that we needed to keep powered. I believe there was five of them on John's initial analysis that were critical that we keep

powered -- or re-power as soon as we could, after we de-terminated the wires from the breakers.

Let's see. We -- the first -- if you want me to just continue with --

Q. Sure.

A. To my recollection, the first breaker that we traced out, we physically lifted the floorboards and traced the wires from panel UDP to the Daniel chromatograph to ensure that when we killed that circuit we were indeed killing the -- what we thought we were, rather than having one of those moments later that this isn't happening the way we thought it was going to happen and getting an alarm on something else. So we physically traced that out. It was indeed as the print had called for it.

So then we killed the breaker, de-terminated it at the load side. We put a "man on line" tag at the breaker. Then we had purchased some temporary UPS systems that take 120 volts. And they were battery back-up, temporary. So then we ran what we call a pigtail from those on the load side of the UPS and re-terminated in the panel. At John's direction, we re-energized those. I don't think on that particular -- I know Gas Control had been apprised of what we were going to do previous to this. I don't know if Oscar called them on this particular circuit. If we -- if he felt that it was necessary to talk with them on this circuit or not, that's kind of out of my job description. That's up to Oscar and Gas Control.

So then we worked through all of the circuits that we -- that John had deemed necessary to keep powered up, so we could free up this panel. This whole exercise was to free the panel so those guys could leave, Ed and I could -- would get a clearance on the supply to that panel, kill it, replace all of the innards, re-terminate, and then we'd re-energize the panel at a later date. I mean, obviously, to this point, we hadn't done that yet because we hadn't been back in.

So we worked through all of the circuits. We went to the next room. We had three circuits in a communication room that we re-powered with another UPS system on a plug strip. And I think there was five -- a variety of things we plugged into the plug strip that we wanted to keep hot for communication. We went through those one a time, re-powered them. At this point everything was looking good.

At this time, to my recollection, we went back into the other room where the UDP panel was and we were turning off -- we were just starting on breaker number 1, and any of the ones that we hadn't re-powered with UPS, we started turning those off because they had been deemed non-critical. So we were clearing the panel, one breaker at a time.

When we got -- and, forgive me, but I don't remember what breaker. We came to a breaker, clicked it off, and I believe we heard like a beep -- a warning, an alarm. We had triggered something that was unexpected. Something -- either we had missed

something in the panel or something was mislabeled. We weren't sure at this point. So I believe it was Oscar who walked out into the old operator's room where there's a mimic board. It's a large board that pretty much does that. It mimics all the valves in the yard. I don't know if you guys have been out there, but it's -- you know, it's got different color differentiation for open and closed. It gives you an idea, where the old operators used to be. They could look up there and see exactly what the condition in the yard was.

So, we had lost power to that mimic board. So, at that point, we had a discussion. Okay. That's unexpected, but it's not -- it doesn't affect operations. This is just a display. So the discussion was do we want to re-power that, go to that trouble, or is it something that we can just live without? Do we care?

It was decided that, yeah, we'd like to have it back because it was a convenience for the local techs. They were used to it. We had space on a temporary UPS or we could even -- I think we ended up powering it from an outlet. Because it wasn't deemed critical, we didn't need it on UPS. So we powered it off of a -- and this is my recollection. I don't think this one's on a UPS. If you go there, I think you'll find it's plugged into an outlet in the control room. It runs back to the panel. And, anyway, we decided to do that.

So we -- I don't know if we re-powered it through the

UDP panel for a short time while we were deciding this, or if we just left it off. I just don't recollect that. But I do recollect that we went through the same procedure we had with all of the other ones that we had put a temporary power to. We de-terminated it. We resupplied it with a pigtail. There were a few moments while we had to get another -- like an extension cord. And before going through all of these procedures, we had taken a clamp-on meter and checked amperage on each line and made sure that whatever pigtail we could use, it would be sufficient to handle that amperage. And I think the largest load we looked at was like 1.8 amps. So just about any pigtail we used would have been more than enough to handle it. We fed that.

Somewhere in this procedure, while we were in that panel, we lost the display for the pressures, which was physically, I believe, right below the controller -- the controllers and their displays that are right on the controllers. And that was like -- that was obviously not a good thing, because I didn't have an explanation as to why Oscar said we lost the displays for the pressure. And I believe that is also what Gas Control would be looking at. I'm not an expert on that. I hadn't looked at the prints. I'm just -- that's just my impression.

This isn't something that we had planned on working on. But because we were in -- if you guys were over there, I think you know in that panel there's hundreds of terminations in there -- terminal blocks. So somehow through re-powering this mimic

display, maybe by jostling a wire or -- I'm not going to speculate -- at that point we lost the display for the pressures. And that was like, darn, you know. That's probably not what I said at the time.

When we were subsequently pressure shooting -- pressure shooting -- troubleshooting, I'm working with John Groppetti and he's good at this stuff. And he and I are talking it over and we're trying to discern why we lost these displays. And so we -- Oscar had gone into the archives to get some prints, because they have prints on site. This wasn't something we expected to work on, so it took him a minute to find those prints. And he comes back with the best prints he could find for that deal.

We found the power supplies that fed that display and we noticed that we had -- there's two power supplies. We had -- on the output side, we had three volts DC on one and seven and a half, roughly. You know, they were point-something. This is -- they're supposed to be nominally 24 volts. So then we -- okay, we don't know why this is what we've got, but this is what we have, you know. So, now we're in full troubleshooting mode, thinking what in the world -- you know, what have we got going now?

So, we lifted the load side, as I remember, just to check the power supply itself. And we had 35 volts, which was more in the normal range of what these things might put out. But as soon as we reapplied the load, we're down to three or seven, depending on which one we're -- the same problem.

So then there was a diode right downstream of each of these. But we can't check on the other side of the diode right there because the way it's mounted in the cabinet. It's not available to us. I can't get a volt meter in there. So, then we were back in, tracing wires on the back side of the panel again. And these -- if you guys have been there, you know that these things are just -- there's a lot of wires back there. It's very difficult to pull one wire and trace it back through that thing, but we did.

And it went to a -- one of them, at least off of one power supply, went to a distribution terminal block that we took voltage. We still had the three-point whatever. John asked me to de-terminate each distribution wire on the distribution side, one at a time. And I did that. I think it was a fifth wire that cleared the problem. So it was good. Okay, so now we're getting somewhere. We have a short on this -- something that's drawing this power supply down.

As I put them back in, all but that one, the problem reappeared. And it's like, you know, that doesn't make sense -- I mean, was our reaction to that. But, you know -- so we were thinking this over and we decided, okay, let's start over. We're going to make sure. We get a flashlight in there and we're going to make sure that we don't have a short, like just a loose wire on one of the wires that might have come out and shorted itself out. Something we hadn't seen.

So I get a flashlight so that I can see better. I clean up the wires. We terminate and re-terminate and de-terminate, I think three times, trying to chase this problem down. Sometime in here, I believe, is when we lost power to the controllers, which was not something that should have been directly involved in what we were working on. And I don't believe it was.

And during this time, I mean, you know, we're -- you know, we're working as hard as we can, tracing these wires out. I've got Ed tracing out wires and Oscar's on the phone with Gas Control, because they're concerned because they had lost sight of the pressures. And this is before we lost the controllers. But they were having a communication problem. And at this -- and it's my understanding is that during this time is when the incident in San Bruno happened. And so they were especially concerned with not being able to see the pressures.

Sometime during in here, we lost the controllers. They had gone blank on the far side of the panel. Oscar was over there and said, you know, an exclamation of some type, that we lost the controllers.

MR. JAQUES: Can you give us some times on this? You've been talking about a lot of things. Can you just indicate the times that you remember, so that everybody understands?

MR. BECK: When we started this process, I think it was, say, 3:30 in the afternoon. When we started the initial process of clearing the UDP panel. Or maybe even earlier than that,

because I remember thinking that it looked like we were going to be able to finish by 4:30, which is the normal quitting time. And things went smoothly, initially. Things were going well and I was looking forward to being able to clear this panel so I could get on with the rest of the job, because it was a lot of just physical work that needed to be done before I could finish.

So it was afternoon, late afternoon. By the time we got into this deal and lost the controllers, I would have to guess at what time it was, 4:30, something like that. I'm sure that it was -- looking at the record, it would -- if we lose the controllers, then the regulators are designed to fail open. The monitors come into play, which, from my understanding, is that they did. There's a resultant rise of 10 or 12 psi. So I believe the set point was 375 for the raids and nominally 385 for the monitors. And I believe that's what happened. And no one's told me otherwise. And everyone that I've talked to has said, okay, yeah, the monitor did take over. Because that was a concern at the moment, especially when we heard that there was a problem downstream.

So we were having these intermittent electrical problems dealing with this. At one point we saw a short or saw a spark in the panel and we had to re-terminate that wire. It was a 120-volt system. I didn't stop at that time to look up and see what that system was. It's just we saw a problem and fixed it. Because we, at the time, had our hands full trying to get these displays back.

And this is before we had lost the controllers.

At some point we got the controllers back. And I wish I could tell you exactly what we did that cleared that problem, but I don't know. From that point, things started to slow down a little. I talked to my boss. He said he was on the way because there had been this incident in San Bruno. I said okay, and I advised him of the status there, that we had the controllers back. I believe three of them had lost their program, and I couldn't tell you which three. There was a technician coming out to reprogram those.

Mark Kazimirsky, the engineer, came out. I think Oscar had called him. Jody Garcia, who is my supervisor, showed up somewhere around that time. And I wish I could tell you what time that was, but I wasn't that much tuned into the clock. You know, I was more involved in did the monitors take over? I mean, what can I do to -- regardless of the rumors I'm hearing downstream, I mean, my job is to regain control of what we've got going on there and to ensure that any electrical problem I'm having isn't -- is going to be mitigated as quickly as possible. The rest of it, I've got to have blinders on and just not -- you know, it doesn't matter, to some extent, what's going on out there in the world because I've got to fix this problem. Because that's the best thing I can do is mitigate what's going on, regardless of what it is.

So we ensured that we had done everything we could

possibly do to have mitigated the problem. Oscar was out in the yard checking the monitors. He was in communication with Gas Control. And I can't tell you what that discussion was about. I just -- I had to -- for my job, I had to make sure that I knew that he was in touch with them. And I knew that for a fact, that he was back and forth. They had called him; he had called them. They were in communication, so that wasn't a concern of mine.

Jody Garcia informed me that for everything that he could find out, that the monitors did take over, that we at no time exceeded the MAOP of the line or actually came near it.

MR. JAQUES: I think this is a good time for you to stop and take questions, unless something --

MR. BECK: Well, you know, I thought this was going to be a more question/answer and not a narrative, but that's the way it went.

BY MR. GUNTHER:

Q. Well, a narrative is part of it. That's valuable, as well.

A. Okay.

Q. It helps us understand what happened.

There's one term that you said, a UDP?

A. Yes.

Q. Define that.

A. That is the name of that UPS panel that's in the communication room, computer room, at Milpitas.

Q. And what does it do?

A. It's a three-phase -- currently, it's a three-phase panel that supplies the power to the Daniels chromatograph. There's a whole list of things that had been deemed it necessary that they have battery back-up in case of a failure.

Q. Okay. Could I get your credentials, formal education?

A. I have a gas tech license from the State of California, accredited through the PG&E apprenticeship.

Q. Okay. Do you have like a regular -- any kind of high school diploma?

A. Oh, yeah.

Q. Okay. College degree?

A. I have -- I graduated from high school. I've got two years of junior college and one year of a four-year college.

Q. Okay. Go ahead.

MR. FASSETT: Point of clarification: The State of California recognizes PG&E's journeyman program and the state recognizes journeymen to perform this work. Is that correct?

MR. BECK: Right. I gave your cohort a copy of my apprenticeship completion card, which the State of California sent to me that said, "You are an accredited journeyman gas technician."

BY MR. GUNTHER:

Q. Are there any other courses, credentials, you've taken through PG&E?

A. We just have -- no credentials.
Q. Ever take courses?
A. We have refresher courses that we go through periodically.
MR. GUNTHER: Go ahead.
MR. FASSETT: Point of clarification: It's a -- the journeyman program is a three-year program; is that correct?
MR. BECK: Right.
MR. FASSETT: With multiple steps within the program?
MR. BECK: Right, six steps.
MR. FASSETT: And various classes associated with each step?
MR. BECK: Exactly.
BY MR. GUNTHER:
Q. Okay. Are you covered under PG&E's OQ program?
A. Yes.
Q. And which covered tasks are you covered under?
A. Geez, I have a list upstairs, if you want.
Q. All right. If you can provide it later, that's fine.
A. Yeah.
Q. That's fine.
A. I brought that with me.
Q. Okay.
MR. GUNTHER: All right. Ravi?
MR. CHHATRE: Yes, sir.

MR. GUNTHER: Do you want to go ahead and ask questions?

MR. CHHATRE: Yes.

I think what we should do is introduce ourselves. So we should go ahead and do that.

My name is Ravi Chhatre. I'm the investigator-in-charge of this accident. I work with the National Transportation Safety Board.

MR. BECK: Okay.

MR. CHHATRE: As an accident investigator.

BY MR. CHHATRE:

Q. I think during the course here on, if you use any acronyms, please tell us what that is.

A. Okay.

Q. And we have that right after the transcript, rather than at the end.

A. Sure.

Q. What is "pigtail"?

A. That is a power cord consisting of a neutral, a ground, and a hot lead. Three wires within one. It has a male end plugged into the uninterruptible power source, the UPS. The other end has been skinned -- is what we say. The three wires are freed and then the ends of them are skinned, where it's bare wire. And so you can put those into the terminal blocks and from that uninterruptible power source, the temporary, we can power whatever circuit that we deem necessary.

Q. So they are open copper wires --
A. Right.
Q. -- just sturdy enough to be stuck in directly into the --
A. Right.
Q. Okay.
A. Right.
MR. FASSETT: Point of clarification: Are they solid or braided wires?
MR. BECK: Braided.
MR. JAQUES: And also, the wires are plugged into an outlet or are they plugged in somewhere else?
MR. BECK: They're plugged into the UPS. Right.
MR. JAQUES: Just to clarify, there are two ends of the cord; one of them is a plug and the other one is bare wire?
MR. BECK: Right.
MR. JAQUES: Where do each of those go? I think it's getting a little bit confused.
MR. BECK: One plugs into the UPS, which is a battery back-up system. And, you know, in addition to the 120 volts running through it. And the other end is skinned and landed in the panel to power whatever.
It's -- by -- there's a terminal block and you use a screw and you land it in the terminal.
BY MR. CHHATRE:

Q. You also mentioned that -- something about the cabinet -- I think it was some kind of --

A. Oh, the diode?

Q. The diode?

A. Right.

Q. And what diode -- if you were to reach that, what -- how would that have helped you in your diagnostic work?

A. Well, that would have -- at the time we were curious as, perhaps, the diode itself was part of the problem. It turns out it wasn't.

Q. And how do you know that now, that it was not a problem?

A. Well, I don't know -- I'd say it's unlikely. I should say it's unlikely that that's part of the problem. It may well turn out to be that there is a problem with it, that it was intermittent.

Q. And did you mention that the way it's mounted in the cabinet is a problem, did you mention that to anyone at PG&E?

A. Since --

Q. Since you could not get to the diode, did you mention that at the time --

A. Well, I couldn't measure voltage on the back side of the diode. That will -- I mean, subsequent to your investigation, we will have an investigation. And I'm sure everything that -- all of these points will be discussed at PG&E.

Q. I guess my question is since you could not reach there

at the time, which did apparently have some kind of an impact in the diagnostic work, did you talk to somebody at PG&E at that time, immediately after that, and say, "Hey, this is a problem; correct it"?

A. No.

Q. Okay. Now, I think you mentioned something in the process, that there was a fifth wire, you did something and then the problem was resolved, at least temporarily?

A. Right.

Q. Can you elaborate a little bit? I didn't quite get that.

A. While we were terminating the -- what we call the pigtail for, I believe that was the --

Q. If you want to draw something, I can provide you paper, if that would help.

A. Well, we lost power to the mimic display. And while we were re-powering that with a pigtail, in that portion of the panel --

Q. Meaning you're sticking those open wires --

A. Right.

Q. -- into something that would --

A. We were terminating those in a terminal block. In the adjacent -- or right above that set of numbers in the terminal block, I noticed that there was a spark on one of the other terminals that we weren't working on.

Q. Okay.

A. This was, maybe, six or eight inches above the area in which we were working.

And at the time that we were doing that, then, naturally, we pulled off of that and we had to re-terminate that wire -- or just tighten the screw, basically, is what it amounted to, to make sure that we had a good connection there.

Q. The one that was sparking or the one that you were sticking in?

A. The one that was sparking.

Q. Okay.

A. And we did that. I just -- I add that, because it was something out of the ordinary. I don't know if it's related or not.

Q. Sure. And so, the fifth wire which was the problem, and supposedly whatever you did to that fifth wire, seemed to have solved the problem. The question is: What did you do on that fifth wire, just plug it in -- or am I getting something wrong here? You mentioned about a fifth wire, you did something to the fifth wire, and the problem went away temporarily.

A. The fifth wire?

Q. Yeah, that's what my -- unless -- did anybody get something different or --

MR. GUNTHER: Oh, yeah.

MR. CHHATRE: Go ahead.

MR. GUNTHER: It was a five-wire and when he got to the fifth wire.

MR. BECK: Oh, okay. Now, I understand.

BY MR. CHHATRE:

Q. Yeah, bare with me.

A. Okay. That was on the power supplies. When --

Q. The mini-power supplies?

A. The 24-volt power supply.

Q. Okay.

A. John is on one side of the panel. I'm on the other. I'm de-terminating, we're troubleshooting, and as I'm pulling these off one at a time, on, I believe, the fifth one out of seven or eight, it cleared.

Q. Meaning the power came back to 24 volts?

A. Right. And he said, "That's the one."

Now, in subsequent troubleshooting, as we're putting these things back, that became not true. And that was one of those frustrating moments that electricians have. I don't know how else to say that. It's like, "Okay, what we thought isn't true." And then, as a troubleshooter does, then you regroup and you start over.

Q. And that's when you pulled all at the same time?

A. Then -- yeah, at one point we had them all off of there. And then we got a flashlight and these braided wires -- I retrimmed them. This wasn't a very comfortable area to work, and

you cleaned everything up. We were getting intermittent responses, which is like the worse that an electrician can look for. It makes things hard to troubleshoot. It wasn't definitive.

At some point in there, that system started working properly again.

Q. While you were putting the wires in?

A. Yeah. Then, all of the sudden, as I put them back in, one at a time, there was no short. There was no problem. And we got to the end and everything's working.

Q. And this wire -- these braided wires, once you stick that thing in, do you tighten with a screw or --

A. Yes, you tighten with a screwdriver.

Q. Didn't you wonder what --

A. Did I wonder? You bet I wondered.

Q. Did you have some kind of a discussion after that as to what might be doing that?

A. Right. Then we were back to the diode again, that perhaps somehow -- and I'm not an electrical engineer. My understanding of a diode, it allows electricity to pass one way and it can't return. It's a check valve for electricity, you know. Why it would -- or how it could possibly affect it the way like that, I don't know.

Q. Now, since then, has that diode been replaced or nothing has been done to that?

A. No, because we haven't been allowed to go back even in

the building, let alone replace anything.

Q. So the diode still sits --

A. Right. And it's functioning at this moment.

Q. Did you even wonder at that time that this may not be a permanent fix, since you didn't know what caused it?

A. Right. I have been wondering -- yes.

Q. Do you guys have any kind of a diagnostic decision as to how to go about it? Whether you did or not is a different question. But did you guys have a discussion as to how you can diagnose the problem further or is there anything you can do?

A. After Mark Kazimirsky arrived, the engineering head, we had discussions as to probable scenarios. But I don't know -- it doesn't do any good for me to rehash the guesses we had because that's what they were; they were speculation.

Q. Was any official request made to continue the diagnostic work?

A. At that point everything was back in operation. My instructions were, "Hands off." Because I wanted to get back in there and continue and investigate. I mean, that's what I do. I didn't like leaving it a job undone. But due to the enormity of this incident, it was decided not -- I don't know whose decision -- that we would cease and desist.

Q. Let me back up just for a second. So when you guys -- oh, it's working now, 24 volts coming out. Was that before the accident or before the accident?

A. Everything was working after -- or, yeah, after -- I believe. I'm operating on my recollection here and there's a lot of things happening at once.

Q. Okay.

A. I believe the 24 volts came back -- I mean the controllers came back after we had cleared them.

Q. But still, that happened before the incident or not?

A. I don't know when the incident happened. You mean, talking about the incident in San --

Q. San Bruno.

A. Yeah, I --

Q. Okay.

A. -- I had no TV, no radio, no --

Q. Okay.

A. All I heard was a rumor that something had happened downstream.

Q. But when you finished that, was it kind of uneasy that you did not know what caused it? Did you officially report to somebody at PG&E that --

A. Yeah, we agreed -- we sat around. Everybody involved sat around and --

Q. Who is "we"?

A. That would be John Groppetti, myself --

Q. I'm sorry, go slower. John -- what was the last name?

A. Groppetti. He was in here this morning. He's an

engineer.

Q. Okay. All right.

A. Myself, Oscar Martinez.

Q. And what's Oscar's --

A. He's a gas tech. He's a maintenance --

Q. Okay.

A. -- gas tech that was working with us that day.

Ed De La Torre, who was an apprentice.

Q. Ed?

A. Ed De La Torre.

Q. Can you spell it?

A. He will be a witness.

Q. Okay. All right.

A. Later on.

Q. Okay.

A. At this time, Jody Garcia.

Q. And Jody is?

A. He's my supervisor.

Q. Do you know his title?

A. I beg your pardon?

Q. Do you know his title?

A. Supervisor -- you know, I really don't know his official title.

Q. That's okay. If you don't, you don't.

A. I'd give you a bum steer, and I don't want to do that.

Q. He's your supervisor. Okay.
And who else?
A. Mark Kazimirsky.
Q. Okay. And his background?
A. And he's an engineering -- he's one of our engineers.
Q. Okay.
A. I don't know what his title is.
Q. That's okay. Who else?
A. Who else was sitting -- Wayne Fong was at the table at some point. He was the engineer that came to reprogram the three controllers that we lost.
Q. Okay.
A. And I -- the general sense, is all I can tell you, is that due to the severity of the problem downstream, we had better not continue, that we had everything in control, we had the controller back, and our best bet was to take a hands-off approach at that point.
Q. But was there any formal consensus documented that once the dust settles, you guys will go back and do the diagnostics? Was that decision made?
A. I wanted to do that, just because that's what I do. My boss said, no, it's -- we need to stand back. And after a little thought, I agreed with him that maybe that would be best.
Q. That is because of the accident that happened, correct?
A. Because of what happened downstream. Under normal

circumstance, if we had had that scenario, then we probably -- and I'm guessing, and I probably shouldn't -- but we might have continued, even though it was late at night.

Q. No, I understand. I think my question was, was it decided to stand down, but "We should come back to this and find out"? Was that kind of a discussion there somewhere in the meeting?

A. Yeah, I'm hoping we can do that next week. But --

Q. No, that's not what I asked you. I -- what I'm asking you is during that meeting, the round-table meeting you had, was it discussed that after this incident or whatever caused you not to do anything right now and when the dust settles, that we should come back and try to rediagnose the problem?

A. Yes.

Q. Was it discussed?

A. Yes, absolutely.

Q. And what was the decision taken, then, yes or no?

A. I don't understand your question.

Q. Okay.

MR. FASSETT: Point of clarification: I believe he answered the question earlier when he said, yes, we'd like to come back and troubleshoot, and once we get clearance, PG&E will do an investigation to determine that.

MR. CHHATRE: I'm trying to find out -- to me, I don't know who said, "We'd like to." But was a decision made by, I

think, a couple of supervisors in here that, okay, after this is done, we will do it. "Like to do" is something different than "will do."

MR. FASSETT: I understand. But I think he asked the question -- he answered the question you asked. There's another supervisor coming in. I suggest that you wait.

MR. CHHATRE: That's fine. That's good for me.

MR. FASSETT: Okay.

BY MR. CHHATRE:

Q. Now, on this three-year program -- I forget the terminology, "journeyman"?

A. Uh-huh.

Q. What does that program involve? I mean, how do you get into the program and how you complete the program?

A. You're chosen to be in it, I like to think because you showed a certain aptitude. It's a three-year study. There's also a lot on the job --

Q. On-the-job training?

A. -- on-the-job training, in addition to -- I don't -- I couldn't tell you how many weeks at San Ramon Learning Center that we spend.

Q. So this is a formal education?

A. Right. We have our own campus in San Ramon.

Q. Okay.

MS. MAZZANTI: Point of clarification: It is a

negotiated, agreed-to, joint apprenticeship. The union and the company negotiated it. It is a certified -- they get certification, and it is -- both parties have worked on this apprenticeship. So it is a formal apprenticeship program. They kind of -- as they turn out, at the end they are a journeyman. So it is an absolute formal education.

MR. CHHATRE: And I think I understand. PG&E said it has been certified by the State of California.

I have no more questions. Thank you very much.

MR. BECK: Thank you.

MR. GUNTHER: Pete from PHMSA?

MR. KATCHMAR: I'll wait.

MS. MAZZANTI: Debbie Mazzanti, IBEW 1245.

MR. KATCHMAR: All right. Thank you for coming in, Peter. My name is Peter Katchmar. I'm with the US DOT. I'm here in support of the California PG&E, who has been called out in the NTSB.

BY MR. KATCHMAR:

Q. I just have a couple of questions, but I really want to thank you for coming in.

You've -- you were talking about 4:30, you lost -- you understood that you lost the three controllers?

A. I believe we lost all of them in the yard.

Q. Okay. But that was around 4:30?

A. That's my guess.

Q. Okay. And are you aware of what happens when that occurs?

A. Yes.

Q. What -- and you talked about the --

A. The regulators fail open. The monitors take over.

Q. Okay. So there's -- it's not an emergency situation. It's abnormal, but it's not --

A. Correct.

Q. Yeah, okay. All righty.

You mentioned that you or someone talked to SCADA control to get the -- because you had -- you thought they had lost visual or telemetry to the station and all of that. Could you explain that a little more?

A. I knew that Oscar Martinez, which is his job rather than mine -- we had talked to Gas Control earlier in the day before we started. We had informed them of our procedure, each circuit that we were going to kill and re-feed with the temporary UPS systems. They were aware all along. Oscar had made arrangements. He had gone in the yard and he had checked some things and I wasn't privy to exactly what he was doing. My impression was -- and --

Q. That's okay. We're going to talk to him later. You don't have to --

A. Okay. Anyway, he was the liaison with Gas Control and I knew for a fact that he was, in fact, doing that, because that gets into -- somewhat into my job. I'm responsible to make sure

that these things are getting done, even though I'm not doing them. It's like, okay, Oscar's got that. That's handled; it's not a concern.

Q. Okay. So there's a hierarchy and where are you in the hierarchy of the four people that were out there that day?

A. As a PG&E rep, I would say Oscar and I were both gas techs. We have different duties, but as a construction foreman, I don't know if it's official, but I feel an obligation to oversee, to some extent, to make sure that what other people are doing is making sense.

Q. Okay. But you didn't yourself pick up a cell phone, pick up a telephone, pick up a radio or anything?

A. No.

Q. Okay.

A. That wasn't in my job scope.

Q. Okay. And then you were, again, talking about them losing visual -- losing the telemetry to the station. Can you discuss a little bit about what you think happened to make it to where they couldn't see the station?

A. When we lost the displays of the pressures, that was due to this voltage drop, I believe. And I don't have the prints with me, but I believe it was due to the voltage drop on the power supplies, the 24-volt power supply.

Q. Okay. But -- and I'm just trying to clarify here, and I'll be very, very quick. But you said when that occurred, the

mimic board went down?

A. No, the mimic board was previous to this.

Q. Oh, oh. So where did you lose the displays? How did you know you lost the displays? What displays did you lose?

A. Okay. When you look at that big board, you have the mimic board on top.

Q. Okay.

A. Then beneath those, there are some displays that display pressures.

Q. Okay.

A. And then beneath that, I believe is the way it's set up, is the controller. And the controllers have their own little display.

Q. I saw that yesterday. Okay, now I know what you're talking about. Okay.

A. So if we lose those displays, then I believe it's a safe assumption that that's the same thing that Gas Control is looking at. It doesn't mean that we lost the controllers, but it does mean that Gas Control is blind.

Q. Okay. That's great. Thank you very much.

A. Okay.

MR. KATCHMAR: And -- well, we're going to go around again, right?

MR. GUNTHER: All right. PG&E? Bob Fassett?

MR. FASSETT: No questions. Thank you.

MR. GUNTHER: City of San Bruno? IBEW?

MS. MAZZANTI: One clarifying question.

BY MS. MAZZANTI:

Q. Ravi asked about -- you stated that there was a -- it was difficult to get to the diode and Ravi asked had you brought that to anyone's attention. Would there have been a reason prior to working on this that you would know where that diode -- that there might be difficulty getting to that diode?

A. No, I mean, it wasn't within the scope of our work.

Q. Okay.

MR. GUNTHER: Okay. Any more operational questions?

Ravi, do you have any operational questions?

MR. CHHATRE: I guess one follow-up question that I have.

BY MR. CHHATRE:

Q. Have you -- during the course of your work, have you worked anywhere else besides Milpitas Station?

A. Yes.

Q. And on similar duties?

A. We have a variety of duties that fall within my job description. I mean, we do everything from pour the concrete for the racks that we build. We have to be able to work from one end of the job to the other.

Q. It's a broad experience?

A. Right. So we install pressure -- you know, racks for

pressure transmitters, for Becker controllers. We install Becker controllers, the actuators. Usually, there will be a heavier crew will come in and put the valves in themselves, and then we'll do all of the wiring, the pneumatics, to make the system functional, SCADA.

Q. So, have you worked at any other SCADA? I don't know how many different SCADAs you have. Have you worked on any others, besides Milpitas, SCADA-wise?

A. Yeah. Yeah, gosh.

Q. I'm glad for your answer.

This spark that you mentioned while you were doing the diagnostics and you saw the problem?

A. Um-hum.

Q. What would cause a spark?

A. It was just loose to begin with.

Q. So you saw this spark and it was disturbed --

A. Oh, it may have been. If there was an intermittent draw on it, then, yes, it could spark without being moved.

Q. I understand. If I see a spark, being a non-electrical engineer, I might report it. I just need your input on that, as to why it was not an event for you?

A. Well, at the time I was pretty busy with other things.

Q. Okay.

A. This was not good news for me to see that. It's not normal, but it existed. It was something to deal with. We dealt

with it as quickly as we could, so we could get back to the --

Q. What you were already doing.

A. Right.

Q. Now, are there any other reasons that the spark you observed could happen? I mean, obviously, it looks like maybe it was the wire and you took care of it. But are there any other possibilities to create this spark?

A. I'm sure there is. What those would be, I don't -- I'm not an electrical engineer.

Q. That's fine. No more questions.

A. Okay.

MR. GUNTHER: Peter?

MR. KATCHMAR: All right. Thank you again.

BY MR. KATCHMAR:

Q. We need to make sure that we get your OQ records --

A. Sure.

Q. -- before you leave the building, obviously.

And I always ask this question, and that is: Is there anything that we haven't asked you here today that you think we should know?

A. No, sir.

Q. Okay. If there is, tomorrow, the next day, the next week, you will have, through your attorney, our names and numbers. Please feel free to give any one of us at any time and say, "Hey, you know, I really need to tell you about this."

A. Yes.

Q. If something comes to your mind, I would appreciate that.

A. Yeah, thank you.

MR. CHHATRE: I think that's a very good point. I think that's important. We may not -- we are humans and we may not remember everything.

MR. BECK: Well, believe me, I would like to find out --

MR. CHHATRE: Anything you can do to help us.

MR. BECK: Absolutely.

MR. GUNTHER: Sunil?

MR. SHORI: Yeah, I understand, and I apologize to the witness. We've got another incident kind of process going on, so we're dealing with a couple of things at the same time. I apologize for the disturbance, that's not the way it should be.

We'll go ahead and look at the questions later, and if there's any need whatsoever, we'll have to go ahead and reschedule the witness. But at this stage, we'll defer to what's been provided.

MR. GUNTHER: All right. Bob for PG&E?

MR. FASSETT: No questions.

MR. GUNTHER: City? IBEW?

MS. MAZZANTI: No questions.

MR. GUNTHER: All right. Now, we're going to go into Rick's section, which is -- well, go ahead.

MR. NARVELL: Thank you.

BY MR. NARVELL:

Q. Mr. Beck, again, I'd like to echo some sentiments that were expressed. We appreciate you coming in today and providing your testimony.

A. Sure.

Q. We talked a little bit prior to your presenting today about some of the areas that the human performance group routinely looks at.

A. Um-hum.

Q. And, for the record, we were able to obtain a requested, 96-hour, four-day history for Mr. Beck. But I just have a few other ones.

A. Sure.

Q. These will not kind of hue with the operational-type questions, but we talked about a little bit earlier, and to the best of your ability, I'd appreciate if you'd respond. Okay?

We'll start off with a general question about your health. How is -- how would you characterize your health?

A. Good.

Q. Okay. Do you recall the date of your last physical?

A. It's within a year. I get a yearly physical.

Q. Okay.

A. So I don't know the exact date.

Q. All right. And did the physician note any concerns or

problems at that time at the conclusion of that?

A. I think three months ago, I had my gall bladder removed.

Q. Oh, okay. All right. Other than that, no problems?

A. No.

Q. Okay.

A. I'm doing good.

Q. Are you taking any medications, prescription or over-the-counter?

A. One medication.

Q. And what would that be?

A. It's [redacted] milligram [redacted].

Q. [redacted]-

A. [redacted].

Q. And what is that for?

A. It's [redacted].

Q. Okay. That's prescription?

A. Yes.

Q. And about how long have you been on this, Mr. Beck?

A. Oh, [redacted] A long time.

Q. Okay.

A. It's a long-term deal.

Q. Is this a tablet a day, twice --

A. Yeah.

Q. Once per day?

A. Once per day.

Q. Okay. All right. Any other medications, prescription, over-the-counter, dietary supplements, et cetera?
A. I take a fish oil tablet for health reasons.
Q. Okay.
A. At least I hope it helps.
Q. And that's a daily basis, too?
A. Yeah.
Q. So you have [redacted] once a day for about 15 years, 500 milligrams?
A. Um-hum.
Q. Is that in the morning, evening?
A. Evening.
Q. Evening. Okay. All right.
Your vision, do you know what your vision rating is?
A. I know that on my cheaters, those are at 200.
Q. All right. So that's basically your reading glasses?
A. Right.
Q. And how long have you had those?
A. Oh, since I was -- let's say 20 years, I've used --
Q. Okay.
A. -- a variety of intensity reading glasses.
Q. Okay. And the same question with respect to your hearing, any difficulty or problem?
A. I have no or very little hearing in my left ear.
Q. All right. And is this documented at some point with

PG&E?

A. Yes.

Q. Okay. And about how long has this condition existed?

A. Oh, six years, I'd say. That's a guess.

Q. And the day-to-day activities, is there any difficulty with respect to that condition?

A. No, nothing.

Q. Right ear is okay?

A. Yes.

Q. Okay. All right.

I'd like to get a sense that day -- meaning a week ago today, last Thursday, the 9th, of your characterization of the work load that day. Was it a busy day? Was it a low day? Was it a typical day?

A. It was, I believe, a well-planned operation with plenty of time allotted. It became something else.

Q. You mean an increase in work load?

A. Well, as we had problems -- yeah, we didn't get off work until 5:30 the next morning. So, I mean, that's --

Q. All right.

A. That was certainly unplanned.

Q. Okay. I believe earlier you had said your normal work day concludes at approximately 4:30 p.m.?

A. Right.

Q. And these various and sundry problems that started to

occur somewhere, maybe -- first, I thought you said 3:30, but it may have even been earlier. Is that accurate?

A. When we started?

Q. Yes.

A. Yeah, I believe we started -- because a lot of it starts with a walk-through and a discussion.

Q. Okay.

A. You know, okay, "We're going to do this. We're going to do this. We've got to call Gas Control, let them know the procedure." These things take time.

Q. Sure.

A. And then we had to pull floorboards, trace wires. And so before we ever killed the first circuit, we're into it a couple of hours.

Q. Okay.

A. Just because we're, you know, hopefully crossing Ts and dotting Is and following procedure.

Q. Do you do what would be called a job briefing or a safety briefing?

A. Yes.

Q. Is that routine? Okay. Would that consist of a job briefing, what you were just telling me?

A. Well, there's --

Q. Or is that something that's separate?

A. There's a verbal tailboard, which is -- in my

group --

Q. Okay.

A. -- separate than the job safety analysis. The job safety analysis consists of me sitting down at a laptop. I've got my crew with me. We discuss the job. I ask them if they have any inputs. Do they -- have they seen any hazards that I've missed? We go through that. When it's just Ed and I, it's a short conversation.

Q. Right.

A. Because there's only two of us on this crew.

Q. Sure.

A. We go through this deal.

Typically, on an exercise like this, we've talked about this two or three times over the previous two or three days because we know we're working towards this. This is like a hurdle we have to get over on the job. It's a focal point.

Q. And this would be a routine component of your job during the day?

A. The walk-through?

Q. Yes.

A. Yeah. Whenever we change modes, whenever we get to a different facet of the job, then we'll have that discussion and we'll have a discussion of possibles, safety issues. Like when we pull the floorboards up, we have to either put a cone down or put some kind of marking. We've got to make sure that somebody

doesn't step in the darn hole.

Q. Got you.

A. You know, it's just basically common-sense stuff.

Q. Sure.

A. If we pull the cover off a panel, we have to put yellow and black tape on it. We have to tailboard that before we do that, so that everybody is aware that there's going to be an open panel here for a minute.

Q. Okay.

A. Let's not have somebody trip in the darn hole and put their hand in the panel.

Q. Sure.

On this day -- and, again, I don't want to be redundant here -- but on Thursday, last Thursday, the day of the incident, was there anything that you can recall that may have been the basis for a distraction in your world? And just let me give you a couple of examples. For example, a recent death in the family, you know, adverse financial news, bad medical news for you or a loved one or a family member or a friend? Anything that may have been a basis for a preoccupation or a distraction?

A. No. I mean, life -- I'll just leave it at no.

Q. Okay. And I'll kind of extend that, if you know of anything with your crew that day? Anything that you might have been aware of that might have been a basis for a preoccupation or a distraction for them?

A. No.
Q. Okay. Very good.
You've gone on and discussed the problems with the UPS and the spark and those kind of things. Other than that, were there any problems with any of your equipment, either mechanical, electrical, pneumatic -- any other problems other than what's already been discussed?
A. No.
Q. Okay, very good.
And the last area here: toxicological, drug and alcohol testing. Were you -- did you submit specimens?
A. Yes.
Q. Okay. Can you give me a little bit of information about what the specimens were and the times, to the best of your memory?
A. There was a breathalyzer for the alcohol, which I saw that result was zero. And then there was a urine sample that was sent, that I believe, you know, it's been returned and I was clear.
Q. Okay. Do you know about what time those specimens were provided, approximately?
A. I'd say 2:00 a.m. on Friday.
Q. It would have been the following day --
A. The 10th.
Q. -- the 10th. Okay. Okay.
And so the breathalyzer reads out right there. That

was .000; is that right?

A. Right.

Q. Is that -- I don't want to put words in your mouth.

The drug testing component of this, you were informed, what?

A. On Monday. I wasn't allowed to come back to work until they had that result. My supervisor called me Monday morning --

Q. Right.

A. -- mid-morning and said, "Okay, you're clear. You can come back to work."

Q. Okay. And just for the record here, on the day of the incident, any alcohol or illicit drug use?

A. Absolutely no.

Q. Okay. Thank you, Karl. Thank you, Mr. Beck.

MR. GUNTHER: Okay. Does anybody have any further questions?

MR. CHHATRE: I don't.

MR. GUNTHER: All right. I'd like to thank you for coming in.

Also, would you like to make a statement for the record?

MR. BECK: No. Thanks for your work.

(Whereupon, the interview was concluded.)

CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF:	PACIFIC GAS & ELECTRIC COMPANY SEPTEMBER 9, 2010 ACCIDENT SAN BRUNO, CALIFORNIA Interview of Peter Beck
DOCKET NUMBER:	DCA-10-MP-008
PLACE:	Burlingame, California
DATE:	September 16, 2010

was held according to the record, and that this is the original, complete, true and accurate transcript which has been compared to the recording accomplished at the hearing.

_____

Richard Friant
Official Reporter